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Article

"Musical Instruments for Girls, Musical Instruments for Boys": Italian Primary and Middle School Students' Beliefs About Gender Appropriateness of Musical Instruments

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Abstract: Background: For children, the decision to play a specific musical instrument may be influenced by several factors. Among them, a relevant role is played by beliefs about gender appropriateness of musical instruments, which may guide the choice toward instruments "for boys" or "for girls". This would limit the range of choices available, overshadowing preferences based on aesthetic and personal tastes. Methods: the current study aims to investigate stereotypical beliefs about gender appropriateness of musical instruments among Italian primary and middle school students. An online questionnaire with close-end and open-end questions has been proposed to 370 students. Qualitative and quantitative analyses have been performed. Results: indications emerged about the presence of specific beliefs about gender appropriateness for some musical instruments. There is a tendency for both girls and boys to express a major preference for those instruments which are considered "feminine" (for girls) and "masculine" (for boys). Conclusions: Among children, there still persist some gender stereotypes about specific instruments, although these are not so strong. The gender of the participants, and not their level of education and musical experience, seems to be a discriminating factor in the appearance of such beliefs. Educators should encourage students to experiment with different musical instruments.

Keywords: gender appropriateness; musical instruments; stereotypical beliefs; primary and middle school students

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1. Introduction

The subject of "gender typicality" in musical instruments is a fascinating and complex topic, reflecting not only musical traditions but also broader social and cultural dynamics. Popular beliefs about which instruments are "feminine" or "masculine" can heavily influence individual choices, especially among young musicians. Stereotypical beliefs can be defined as generalized ideas about specific groups and their "typical" characteristics, attitudes, and behaviors (Hammond & Cimpian, 2017). These beliefs are usually developed more at an individual level than a societal one. One of the most prominent dimensions of stereotypical beliefs concerns the gender appropriateness of objects, behaviors, activities, etc., defining what is "appropriate" for people of a masculine or feminine gender (Freeman, 2007). Stereotyped expectations about the gender typicality of musical instruments may limit opportunities for children to explore the full range of musical instruments. For example, a girl may feel less encouraged to play the trumpet or double bass because of

the perception that these instruments are more suitable for boys. Peer pressure can play a crucial role in this context. Students tend to conform to the norms of their social group, which can lead to the perpetuation of these gender stereotypes. If, conventionally, certain instruments are considered "unsuitable" for a particular group, individuals within that group may feel compelled to adapt to such beliefs, even if they wish to play "unconventional" instruments. In addition, the role models available may influence student choices. If children see mostly musicians of a certain gender associated with specific instruments, they may be less likely to consider playing an instrument that does not match their gender.

It is interesting to note how gender bias influences children's musical choices. Research in the field of music education shows that, although there are signs of change, many stereotypes persist; for example, it is common for boys to be encouraged to play instruments such as the guitar or drums, while girls more often play instruments such as the piano or violin. This can limit the opportunities and musical experiences for both sexes.

1.1. The Development of Gender Identity in Early Childhood and During Primary School

Music learning could be a significant activity during childhood (Wrape et al., 2016) but it may be affected by attitudes and beliefs about gender appropriateness. Kohlberg (1966) stated that children not only learn to recognize their own gender but also develop an understanding of its stability over time. This means that once a child identifies as male or female, they begin to internalize the idea that this gender identity is permanent. Studies by Katz (1987) and Williams et al. (1975) have shown that gender knowledge accumulates and evolves as children grow. This learning process affects how children perceive themselves and others, and it can also influence their choices, including those relating to musical instruments and involvement in artistic activities such as concerts, recitals, band, or choir exhibitions. According to one of the main models of gender development during infancy, at the age of two, children begin to recognize their gender and at three they are able to identify the gender of others (Thompson, 1975). This can be considered a fundamental step in their social understanding. Between the ages of three and seven, children develop the idea of gender constancy, which is the implied belief that their gender will remain the same over time (Stangor & Ruble, 1987).

Preferences for toys and activities, as well as behaviors considered typical of one's gender, begin to manifest more clearly (Lauer et al., 2018). These developments can also have a significant impact on the musical choices and instruments that children choose to explore.Abeles and Porter (1978), show that gender bias in music can be seen at an early age, influencing children's instrumental choices. The discovery that children aged 6 to 10 tend to believe that band directors should be male suggests that gender norms are already well-established in their perceptions, even at a young age. Marshall and Shibazaki (2012) confirmed this tendency in very young children (three to four years), finding that predominant stereotypes about musical instruments are already present at pre-school age, while other beliefs about gender appropriateness are mainly related to social and contextual influences. During childhood and primary school, children develop specific multidimensional patterns of gender identity. Five dimensions of gender identity have been considered by Perry et al. (2019), including felt same-gender typicality, felt other-gender typicality, gender contentedness, felt pressure for gender conformity, and intergroup bias. Children who feel same-gender typicality are less at risk to develop social and personal stressors, although it seems to be associated with a polarization toward gender-typical behaviors. More recent studies suggest that from early to middle childhood, the development of gender identity may be influenced by the comparisons between own-gender and other-gender features in social interactions (Martin et al., 2017). In this condition, four multidimensional gender identities may develop: the own-gender pattern (feeling

similar to own-gender models), the both-gender pattern (recognizing characteristics from both genders); more atypical, the cross-gender pattern (not feeling in a specific gender) and the low-gender pattern (claiming low similarities with both genders). These findings seem to overcome the traditional dualistic view of gender identity.

Considering specifically formal educational contexts, research by Brophy (1985), and by Sadker and Sadker (1985) has shown that teachers often incorporate traditional gender roles into their teaching styles, acting as models for their students (Tarnowski, 1993). This may manifest as different expectations for male and female students, reinforcing stereotypical behaviors and employment plans. For example, teachers may encourage boys to engage in more physical or technical activities, while girls could be directed toward more relational or artistic tasks. However, recently, teachers have become aware of the need to promote gender-integration in their classrooms, and strategies are currently being developed (Farago et al., 2022).

1.2. Gender Stereotypes in Musical Education

Nonetheless, Abeles and Porter's results (Abeles & Porter, 1978) clearly show that gender associations influence instrumental choices among adults, particularly parents. In their study, parents tended to prefer instruments such as the clarinet, flute, and violin for girls, while boys were more likely to choose instruments such as the drums, trombone, and trumpet. These choices suggest that there are traditional expectations of gender roles which influence not only the decisions of children themselves, but also those of their parents. More recent studies confirmed these tendencies (Hallam et al., 2008; Cooper & Burns, 2021), with girls and boys choosing to play instruments that are traditionally considered gender-oriented. It should be noted that the cello and saxophone have been considered appropriate for both sexes, showing that some instruments may be perceived as more gender-neutral, or that their association with specific gender roles is not so strong. However, the predominance of choices based on the child's sex underlines the importance of addressing these prejudices within society. Cultural expectations also have a great impact on individual choices, including in music learning: Conway (2000) highlighted that high school students who "break stereotypes" when choosing the instrument to play are those who give less importance to the opinion of others in their decisions. Beyond this, it can be observed that specific characteristics of certain musical instruments may be viewed as more "feminine" or "masculine"; for example, Stronsick et al. (2018) found that, university students considered musical instruments with a low pitch more suitable for males, while those centered on high pitches were considered more feminine, similar to the gender division in polyphonic voices.

The 1992 Delzell and Leppla study of Abeles and Porter (1978) provided important information on the evolution of the associations between gender and musical instruments over the years. The results showed that, although the extent of instrument-gender associations had decreased in the 1980s compared to prior decades, the position of instruments within the female–male continuum had remained relatively constant. More recent contributions in the field of music psychology have shown that gender stereotypes still affect the professional career of women in music, with particular references to Western classical music contexts (Sergeant & Himonides, 2019).

Access to musical experiences not limited by stereotypes about gender roles in music may enhance the potential benefits of music education for children and adolescents' cognitive, emotional, and psychological development. With a wider range of opportunities for musical activities, students may have greater motivation to try an activity (learning to play a musical instrument) which may enhance their use of transversal cognitive resources (memory, attention, planning skills, visuospatial abilities) (Commodari et al., 2024; Jaschke

et al., 2018). In addition, musical training may also enhance emotional intelligence abilities via emotion recognition (Commodari & Sole, 2020) and expression (Campayo-Muñoz & Cabedo-Mas, 2017). Children may recognize and express their emotional states and feelings through music, and it may guide them to understand the different nuances of emotions, overcoming limitations due to the "respect" of gender typical behaviors. This may be particularly relevant for helping pre-adolescents and adolescents cope with the psychological changes that are characteristic of this stage of life.

Collectively, the research suggests that while there has been progress in reducing gender bias associated with certain musical instruments, traditional perceptions of which instruments are "appropriate" for males and females persist. For example, instruments such as the flute and violin may still be seen as more suitable for girls, while the drums and trumpet may continue to be associated with boys. These findings indicate that, despite the social and cultural changes that have improved gender awareness, traditional norms are difficult to overcome completely. Social, cultural, and family influences may continue to play a significant role in children's instrumental choices. Experiences of counter-stereotypical situations may help students, and these can be facilitated by adopting a more gender inclusive approach also in music learning (Harrison & O'Neill, 2000), but this requires an integrated effort among different educational contexts (family, school, informal education, etc.). In the present research we asked, what are the "typical genders" suited to playing certain musical instruments as perceived in Italy among children aged 8–14 years? The results of this research, aimed at answering that question, lead us to reflect on and discuss whether Italians are fixed in our belief that a musical instrument is more feminine or masculine, and thus more suitable for girls or boys or whether a transformation of thought is underway.

2. Materials and Methods

2.1. Research Aims and Questions

The current study had an exploratory nature, given the lack of studies focused on the main theme addressed in the Italian educational landscape. Although widely explored in international research contexts, the topic of stereotypical beliefs about the gender appropriateness of musical instruments among primary and middle school children has not been extensively considered among Italian students. Today, the cultural changes and new educational challenges that characterize Italian society and schools have created a particular need to consider beliefs and stereotypes relating to gender differences in the educational field.

Based on an analysis of the literature in the field of music education, two research questions were developed:

RQ1. Do Italian primary and middle school students show specific stereotypical beliefs about the gender appropriateness of some musical instruments?

a. What are the musical instruments for which this type of belief is most evident and what kinds of beliefs appear most frequently?
b. What are the most frequent motivations for justifying these beliefs?

RQ2. Are there significant differences in students' attitudes towards different musical instruments based on their levels of appreciation for these instruments and the stereotypical beliefs (or lack of) about the instruments' gender appropriateness?

a. Considering participants' genders.
b. Considering participants' previous experience with musical instruments (playing an instrument or not).

2.2. Participants

This study involved 370 Italian primary and middle school students. Participants mainly lived in two regions in the northeast of Italy, Veneto and Emilia-Romagna: these are two densely populated regions with good economic and productive levels, in which there is a significant presence of migrant families. The participants' group included 183 males (49.46%) and 187 females (50.53%). The students' mean age was 11.43 years (SD = 1.59, range 8–14); 98 children (26.49%) were in the last two years of primary school, while 272 (73.51%) were in middle school. All the students involved in this study attended public schools. Students were mainly Italian (n = 334, 90.27%), with a few participants having dual Italian–foreign country citizenship (n = 4, 1.08%). Among the non-Italian participants, some were from other European countries (Albania, the UK, Moldavia, Romania, Portugal, and Russia; n = 8, 2.16%), Asian countries (Pakistan, Bangladesh, China, and Thailand, n = 5, 1.35%), or African countries (the Ivory Coast, Senegal, and Morocco, n = 5, 1.35%), and a few were from the American continent (countries from North and South American countries such as Dominican Republic, Colombia, Brazil, and Peru, n = 4, 1.08%). Their cultural backgrounds included Western and Eastern European cultures, as well as non-European cultures, such as Middle Eastern, Arabic, African, Asian, and American cultures.

More than half of the participants reported that they did not play any musical instruments (n = 193, 52.16%), while the others had played at least one musical instrument (n = 177, 47.84%).

2.3. Questionnaire

A questionnaire was prepared for data collection designed and developed specifically for this research. It included both open and closed questions, structured in three main parts:

- Participants' demographic information: age, gender, class attended, and nationality.
- Information about previous individual experiences with music and musical instruments: whether the respondents played a musical instrument or sang, which instrument they played, or which instrument they would like to play (if they did not play one), and their favorite instrument. The questions in this section included both closed responses based on a dichotomic variable (e.g., Q: "Can you play any musical instrument?", R: "Yes/No") and open responses (e.g., "If you play, what instruments can you play?", "What is your favorite instrument?", "Which instrument would you like to start playing?"). Responses to the dichotomic variable were coded with 0/1.
- Questions about knowledge of musical instruments, levels of appreciation for them, and beliefs related to the gender appropriateness of some musical instruments: piano, violin, trumpet, singing, harp, drums, electric guitar, double bass, classical guitar, bass, organ, transverse flute, saxophone, accordion, and harmonica. In this section, there were several kinds of questions: (1) Questions on the level of knowledge about each musical instrument mentioned, which required a response on a dichotomic variable (e.g., Q: "Piano: Do you know this instrument?" R: "Yes/No"); (2) questions on the level of appreciation for each musical instrument, which required closed responses on a five-point Likert scale (e.g., "Piano: Do you like this instrument?" R: "1 = I don't like it at all; 2 = I like it very little; 3 = I'm not interested in it; 4 = I like it quite a bit; 5 = I like it a lot); (3) questions on beliefs about the gender appropriateness of musical instruments, which required selecting a response by choosing among specific nominal categories (e.g., "Piano: According to you, this instrument is…" R: "neutral, quite masculine, only masculine, quite feminine, only feminine); (4) questions about motivations supporting stereotypical beliefs about gender attributions, which require choosing among qualitative responses (e.g., "the instrument has a delicate sound") or adding personal motivations not included in the list. The musical instruments

mentioned in the questionnaire were selected considering the most relevant research into gender stereotypes of children in music education (Hallam et al., 2008; Cooper & Burns, 2021; Conway, 2000), considering also some instruments that are typical of Italian popular musical culture (e.g., accordion, harmonica).

A pilot test of the questionnaire with a small group of four primary and middle school students was performed, to identify potential mistakes, and unclear or ambiguous questions or responses.

2.4. Research Procedure

The current research project was planned and proposed by the Department of Music Pedagogy and approved by the Director and the Academic Council of the Music Conservatory "F. Venezze" in Rovigo, Italy. Several primary and secondary school institutions were contacted to request their authorization to propose the research to their students. The current investigation was conducted in accordance with the ethical principles of the Declaration of Helsinki (World Medical Association, 2003). Students and families were presented with the main aims of the research and the procedure, and the researcher collected their informed consent to participate: the voluntariness of participation in the research was underlined, and they were informed about the anonymity of the data collected and their use only in an aggregate form for research and academic purposes. After having collected informed consent, the questionnaire was proposed to students in classes four and five of primary schools and all classes of middle schools through two channels: online, where the questionnaire was completed via Google Forms, or in a paper format, if the conditions permitted. The questionnaire took the students 15–25 min to complete.

3. Results

The collected data were examined using quantitative and qualitative analysis.

The quantitative analyses include the following:

- Descriptive statistics, in order to investigate the frequencies and distribution of levels of knowledge about and appreciation for musical instruments and specific stereotypical beliefs in the whole group of participants, in gender subgroups, and in musical experience subgroups (RQ1).
- Inferential statistics, more specifically, independent t-tests comparing the mean levels of appreciation in gender and musical experience subgroups, and chi-square tests comparing the frequencies of stereotypical beliefs in these subgroups (RQ2).

Qualitative analysis consisted of categorizing the motivations behind the beliefs about the gender appropriateness of the instruments (RQ1).

3.1. Quantitative Analyses

3.1.1. Descriptive Statistics for the Overall Group

Through the questionnaire, respondents were asked to indicate whether they knew each instrument mentioned (Q: "Do you know this musical instruments?"). The results are summarized in Table 1.

The best-known instrument was the piano, which 99.2% of the participants reported knowing (n = 367). The least-known instrument was the double bass (only known to 72.97% of the participants).

Participants were then asked to indicate how much they appreciated each instrument (question: "Do you like this instrument?") by choosing from five options on a Likert scale ("1 = I don't like it at all; 2 = I like it very little; 3 = I'm not interested in it; 4 = I like it quite a bit; 5 = I like it a lot"). The results, in terms of means and standard deviations, are reported in Table 2.

Table 1. Frequencies of responses and percentages of participants' knowledge of the different musical instruments.

Knowledge of the Instrument						
	Yes	**%**	**No**	**%**	**No Resp.**	**%**
Piano	367	99.2	3	0.8	-	-
Violin	357	96.49	13	3.51	-	-
Trumpet	350	94.59	20	5.41	-	-
Singing	364	93.38	6	1.62	-	-
Harp	321	86.76	47	12.7	2	0.54
Drums	361	97.57	6	1.62	3	0.81
Electric guitar	356	96.22	13	3.51	1	0.27
Double bass	270	72.97	94	25.41	6	1.62
Classic guitar	363	98.11	5	1.35	2	0.54
Bass	291	78.65	77	20.81	2	0.54
Organ	304	82.16	64	17.3	2	0.54
Transverse flute	336	90.81	32	8.65	2	0.54
Saxophone	325	87.84	42	11.35	3	0.81
Accordion	333	90	36	9.73	1	0.27
Harmonica	313	84.6	54	14.59	3	0.81

Table 2. Mean scores and standard deviations of responses for the level of appreciation of each instrument.

Level of Appreciation		
	Mean	**SD**
Piano	3.98	1.05
Violin	3.24	1.26
Trumpet	2.83	1.25
Singing	3.89	1.22
Harp	3.19	1.42
Drums	3.64	1.22
Electric guitar	3.77	1.25
Double bass	2.47	1.24
Classic guitar	3.82	1.16
Bass	3.32	1.27
Organ	2.87	1.4
Transverse flute	3.23	1.28
Saxophone	3.21	1.25
Accordion	3.04	1.25
Harmonica	2.99	1.32

The most appreciated instruments were the piano, with an average satisfaction score of 3.98 (SD = 1.05). Among the instruments least liked by the participants the first was the double bass (M = 2.47, SD = 1.24).

For participants' beliefs regarding the gender appropriateness of each instrument mentioned in the questionnaire, three macro-categories were considered (neutral: piano, singing, double bass, classical guitar, organ, flute, and harmonica; tending to be masculine: trumpet, drums, and electric guitar; and tending to being feminine: harp) and five sub-categories (neutral, quite masculine, only masculine, quite feminine, only feminine). The response frequency results for each category are shown in Table 3 (Part a and Part b).

Table 3. Frequencies of responses considering participants' beliefs about gender appropriateness of each instrument.

(Part a)								
	Piano	**Violin**	**Trumpet**	**Singing**	**Harp**	**Drums**	**Elect. Guitar**	**Double Bass**
a. Masculine only	10	6	44	6	4	92	66	23
b. Quite masculine	33	23	165	7	17	164	137	54
c. Neutral	300	179	154	317	134	113	164	239
d. Quite feminine	27	152	6	30	169	1	2	45
e. Feminine only	0	10	1	10	46	0	1	9
(Part b)								
	Clas. Guitar	**Bass**	**Organ**	**Tran. Flute**	**Saxophone**	**Accordion**	**Harmonica**	
a. Masculine only	18	49	34	11	47	57	33	
b. Quite masculine	70	126	70	21	136	104	65	
c. Neutral	277	192	239	257	180	196	257	
d. Quite feminine	5	3	21	73	5	11	14	
e. Feminine only	0	0	6	8	2	2	1	

Based on what emerged from the responses, a fourth macro-category was definable as instruments considered ambiguously, when the responses highlighted mixed beliefs among participants: violin (considered, at the same time, neutral and generally feminine), bass, saxophone, and accordion (all considered both neutral and generally masculine).

3.1.2. Descriptive Statistics for Gender Subgroups

To consider the participants according to their gender, the responses were examined by dividing the group into females (n = 187) and males (n = 183). With respect to knowledge of the instruments, the responses of the two subgroups are reported in Table 4.

Table 4. Frequencies of responses and percentages of participants' knowledge of the different musical instruments according to gender subgroups.

	Knowledge of the Musical Instruments					
	Females (n = 187)			**Males (n = 183)**		
	Yes (%)	**No (%)**	**No Resp. (%)**	**Yes (%)**	**No (%)**	**No Resp. (%)**
Piano	187 (100)	0	-	180 (98.36)	3 (1.64)	-
Violin	181 (96.79)	6 (3.21)	-	176 (96.17)	7 (3.82)	-
Trumpet	175 (93.58)	12 (6.42)	-	175 (95.63)	8 (4.37)	-
Singing	185 (98.93)	2 (1.07)	-	179 (97.81)	4 (2.19)	-
Harp	167 (89.30)	20 (10.70)	-	154 (84.15)	21 (11.47)	2 (1.09)
Drums	184 (98.40)	3 (1.60)	-	177 (96.72)	3 (1.64)	2 (1.09)
Electric guitar	181 (96.79)	6 (3.21)	-	176 (96.17)	7 (3.82)	-
Double bass	141 (75.40)	42 (22.46)	4 (2.14)	129 (70.49)	52 (28.41)	2 (1.09)
Classic guitar	185 (98.93)	1 (0.53)	1 (0.53)	178 (97.27)	4 (2.19)	1 (0.55)
Bass	141 (75.40)	45 (24.06)	1 (0.53)	150 (81.97)	32 (17.49)	1 (0.55)
Organ	150 (80.21)	36 (19.25)	1 (0.53)	154 (84.15)	28 (15.30)	1 (0.55)
Transverse flute	172 (91.98)	14 (7.49)	1 (0.53)	164 (89.62)	18 (9.84)	1 (0.55)
Saxophone	158 (84.49)	28 (14.97)	1 (0.53)	167 (91.26)	14 (7.65)	2 (1.09)
Accordion	172 (91.98)	15 (8.02)	-	161 (87.98)	21 (11.47)	1 (0.55)
Harmonica	157 (83.96)	29 (15.51)	1 (0.53)	156 (85.25)	25 (13.66)	2 (1.09)

For both girls and boys, the most commonly known musical instrument was the piano (known by 187 females and 180 males), while the least known were the bass for the girls and the double bass for the boys (not known by 45 girls and 52 boys, respectively).

Considering the level of appreciation for each musical instrument, results are reported in Table 5.

Table 5. Mean scores and standard deviations of responses for the level of appreciation of each instrument for gender subgroups.

	Level of Appreciation			
	Females (n = 187)		Males (n = 183)	
	Mean	SD	Mean	SD
Piano	4.16	0.97	3.8	1.1
Violin	3.5	1.2	2.98	1.26
Trumpet	2.6	1.21	3.05	1.24
Canto	4.25	1	3.52	1.31
Harp	3.45	1.41	2.92	1.37
Drums	3.38	1.27	3.9	1.13
Electric guitar	3.53	1.27	4.02	1.17
Double bass	2.62	1.29	2.31	1.16
Classic guitar	3.89	1.13	3.74	1.89
Bass	3.19	1.26	3.44	1.26
Organ	2.88	1.4	2.84	1.41
Transverse flute	3.38	1.24	3.07	1.31
Saxophone	2.94	1.24	3.49	1.22
Accordion	2.99	1.29	3.1	1.21

The girls' most appreciated musical instrument was the voice (M = 4.25, SD = 1), while their least appreciated was the trumpet (M = 2.6, SD = 0.97). The boys showed particular appreciation for the electric guitar (M = 4.02, SD = 1.17), while they did not like the double bass (M = 2.31, SD = 1.16).

In regard to beliefs about the gender appropriateness of the musical instruments, in general, there were discrepancies in the answers regarding the electric guitar, bass, saxophone, and accordion. These were the subject of subsequent analyses. The response frequencies for gender subgroups are reported in the Table 6.

Table 6. Frequencies of responses considering participants' beliefs about gender appropriateness of each instrument for gender subgroups.

(Part 6a)								
	Piano		Violin		Trumpet		Singing	
	Females	Males	Females	Males	Females	Males	Females	Males
a. Masculine only	1	9	3	3	16	28	1	5
b. Quite masculine	10	23	9	14	87	78	1	6
c. Neutral	158	142	94	85	83	71	169	148
d. Quite feminine	18	9	75	77	1	5	8	22
e. Feminine only	0	0	6	4	0	1	8	2
(Part 6b)								
	Harp		Drums		Elect. Guitar		Double Bass	
	Females	Males	Females	Males	Females	Males	Females	Males
a. Masculine only	3	1	33	59	23	43	9	14
b. Quite masculine	6	11	86	78	64	73	21	33
c. Neutral	67	67	67	46	99	65	134	105
d. Quite feminine	91	78	1	0	0	2	19	26
e. Feminine only	20	26	0	0	1	0	4	5

Table 6. *Cont.*

(Part 6c)								
	Cl. Guitar		**Bass**		**Organ**		**Tranv. Flute**	
	Females	**Males**	**Females**	**Males**	**Females**	**Males**	**Females**	**Males**
a. Masculine only	5	13	19	30	17	17	3	8
b. Quite masculine	22	48	58	68	29	41	7	14
c. Neutral	156	121	109	83	127	111	138	119
d. Quite feminine	4	1	1	2	10	11	34	39
e. Feminine only	0	0	0	0	3	3	5	3
(Part 6d)								
			Saxophone		**Accordion**		**Harmonica**	
			Females	**Males**	**Females**	**Males**	**Females**	**Males**
a. Masculine only			15	32	16	41	7	26
b. Quite masculine			77	59	48	56	25	40
c. Neutral			94	86	115	81	148	109
d. Quite feminine			1	4	7	4	7	7
e. Feminine only			0	0	1	1	0	1

3.1.3. Descriptive Statistics for Musical Experiences Subgroups

Participants' responses were also examined considering their level of acquaintance with musical practice. The questionnaire item, "Can you play any musical instrument?", allowed the researchers to divide the students into two subgroups: students who played a musical instrument (players, n = 177) and those who did not play or study music at all (non-players, n = 193). The results of this division are summarized in Table 7.

Table 7. Frequencies of responses and percentages of participants' knowledge of the different musical instruments according to players/non-players subgroups.

	Knowledge of the Musical Instruments					
	Players (n = 177)			**Non-Players (n = 193)**		
	Yes (%)	**No (%)**	**No Resp. (%)**	**Yes (%)**	**No (%)**	**No Resp. (%)**
Piano	176 (99.43)	1 (0.57)	-	191 (98.96)	2 (1.13)	-
Violin	170 (96.04)	7 (3,95)	-	187 (98.89)	6 (3.39)	-
Trumpet	167 (94.35)	10 (5.65)	-	183 (94.82)	10 (5.18)	-
Canto	176 (99.43)	1 (0.56)	-	188 (97.41)	5 (2.59)	-
Harp	158 (89.27)	19 (10.73)	-	163 (84.46)	28 (14.51)	2 (1.04)
Drums	172 (97.17)	2 (1.13)	3 (1.69)	189 (97.93)	4 (2.07)	-
Electric guitar	173 (97.74)	3 (1.69)	-	184 (95.34)	9 (4.66)	-
Double bass	138 (77.97)	36 (20.34)	3 (1.69)	132 (68.39)	58 (30.05)	3 (1.55)
Classic guitar	173 (97.74)	2 (1.13)	2 (1.13)	190 (98.45)	3 (1.55)	-
Bass	151 (85.31)	25 (14.12)	1 (0.53)	140 (72.54)	52 (26.94)	1 (0.52)
Organ	148 (83.61)	28 (15.82)	1 (0.53)	156 (80.83)	36 (18.65)	1 (0.52)
Transverse flute	165 (93.22)	11 (6.21)	1 (0.53)	171 (88.60)	21 (10.88)	1 (0.52)
Saxophone	160 (90.40)	17 (9.60)	-	165 (85.49)	25 (12.95)	3 (1.55)
Accordion	163 (92.09)	13 (7.34)	1 (0.53)	170 (88.08)	23 (11.92)	-
Harmonica	148 (83.62)	28 (15.82)	1 (.0.53)	165 (85.49)	26 (13.47)	2 (1.04)

For both the subgroups, the most commonly known instrument was the piano (known by 177 of the "players" subgroups, 99.43%, and 191 of the "non-players" subgroup, 98.96%)),

while the least known was represented by the double bass (known by 138 "players", 77.97%, and by 132 "non-players", 68.39%).

The level of appreciation for each musical instrument was assessed on a five-point Likert scale, as reported previously, and the results in mean scores and standard deviations are reported in Table 8.

Table 8. Mean scores and standard deviations of responses for the level of appreciation of each instrument for players and non-players subgroups.

	Level of Appreciation			
	Players (n = 177)		Non-Players (n = 193)	
	Mean	SD	Mean	SD
Piano	4.15	0.98	3.83	1.09
Violin	3.45	1.25	3.05	1.24
Trumpet	3.14	1.26	2.54	1.18
Singing	3.94	1.21	3.84	1.23
Harp	3.29	1.34	3.09	1.48
Drums	3.75	1.19	3.54	1.25
Electric guitar	3.90	1.22	3.65	1.26
Double bass	2.70	1.27	2.25	1.17
Classic guitar	3.95	1.12	3.69	1.18
Bass	3.47	1.25	3.18	1.27
Organ	3.09	1.40	2.65	1.38
Transverse flute	3.39	1.29	3.08	1.26
Saxophone	3.29	1.21	3.14	1.29
Accordion	3.07	1.24	3.03	1.26
Harmonica	3.11	1.34	2.89	1.29

In the player subgroup, the best appreciated instrument was the piano (mean score = 4.15, SD = 0.98); while they least liked the double bass (mean score = 2.70, SD = 1.27). In the non-player subgroup, students particularly liked singing (mean score = 3.83, SD = 1.23), and showed less appreciation for the double bass (mean score = 2.25, SD = 1.17).

With reference to the stereotypical beliefs about gender appropriateness of musical instruments, the results are reported in Table 9. Potential differences will be examined in the following paragraph.

Table 9. Frequencies of responses considering participants' beliefs about gender appropriateness of each instrument for players/non-players subgroups.

(Part 9a)								
	Piano		Violin		Trumpet		Singing	
	Players	Non-Players	Players	Non-Players	Players	Non-Players	Players	Non-Players
a. Masculine only	4	6	2	4	23	21	3	3
b. Quite masculine	11	22	12	11	84	81	2	5
c. Neutral	151	149	87	92	70	84	151	166
d. Quite feminine	11	16	70	82	0	6	16	14
e. Feminine only	0	0	6	4	0	1	5	5

Table 9. *Cont.*

(Part 9b)								
	Harp		**Drums**		**Elect. Guitar**		**Double Bass**	
	Players	**Non-Players**	**Players**	**Non-Players**	**Players**	**Non-Players**	**Players**	**Non-Players**
a. Masculine only	1	3	39	53	25	41	10	13
b. Quite masculine	7	10	87	77	68	69	23	31
c. Neutral	63	71	51	62	81	83	114	125
d. Quite feminine	84	85	0	1	2	0	24	21
e. Feminine only	22	24	0	0	1	0	6	3
(Part 9c)								
	Cl. Guitar		**Bass**	**Organ**			**Tranv. flute**	
	Players	**Non-Players**	**Players**	**Non-Players**	**Players**	**Non-Players**	**Players**	**Non-Players**
a. Masculine only	11	7	24	25	14	20	6	5
b. Quite masculine	30	40	66	60	37	33	6	15
c. Neutral	135	142	85	107	110	129	119	138
d. Quite feminine	1	4	2	1	11	10	39	34
e. Feminine only	0	0	0	0	5	1	7	1
(Part 9d)								
	Saxophone		**Accordion**		**Harmonica**			
	Players	**Non-Players**	**Players**	**Non-Players**	**Players**	**Non-Players**		
a. Masculine only	25	22	28	29	21	12		
b. Quite masculine	66	70	48	56	30	35		
c. Neutral	82	98	94	102	117	140		
d. Quite feminine	3	2	6	5	8	6		
e. Feminine only	1	1	1	1	1	0		

3.1.4. Mean Comparisons (Independent *t*-Test) for Level of Appreciation

To answer the first part of RQ2 (Are there significant differences in students' attitudes towards different musical instruments based on their levels of appreciation [...]?) the researchers compare the scores of the appreciation question for each instrument.

To compare participants' preferences in gender subgroups, comparisons between the mean scores were conducted using *t*-tests for independent groups. Significant differences in appreciation levels emerged for nine instruments: piano, violin, trumpet, singing, harp, drums, electric guitar, flute, and saxophone. For the piano, the difference was significant with $t_{(368)} = -3.31$ ($p < 0.01$), in which girls reported greater appreciation. For the violin, the difference was again significant with $t_{(368)} = -4.35$ ($p < 0.01$), in which a higher level of satisfaction was found for the girls. The trumpet appreciation scores were significantly different ($t_{(368)} = 3.52$, $p < 0.01$), with more boys reporting that they liked this instrument than girls. The opposite situation was highlighted for singing, the harp, and the transverse flute, which were significantly more greatly appreciated by the girls (respectively, $t_{(368)} = -6.04$, $p < 0.01$ for singing, $t_{(368)} = -3.70$, $p < 0.01$ for the harp and $t_{(368)} = -2.33$ $p < 0.05$ for the flute), while for the drums and the preference shown for the electric guitar was also higher in these cases for the boys (respectively, $t_{(368)} = 3.52$, $p < 0.01$, for the drums and $t_{(368)} = 3.86$, $p < 0.01$, for the electric guitar). Finally, the saxophone was also liked to a greater extent by boys than girls, for which it was found a significant difference in the average satisfaction scores with $t_{(368)} = 4.27$, $p < 0.01$. Instruments significantly more greatly appreciated by boys were also those the participants defined as "tendentially masculine" (except for the saxophone, which was defined in a hybrid way, with equivalent responses for neutral and masculine attributions).

Independent *t*-tests were computed to compare the mean appreciation levels for instruments in subgroups categorized according to the level of instrument-playing experience (players/non-players). The results highlighted significant differences for eight instruments:

piano, violin, trumpet, double bass, classic guitar, organ, bass, and transverse flute. Players showed greater appreciation for these musical instruments than non-players (respectively, for $t_{(368)} = -2.89$, $p < 0.01$, for the piano; $t_{(368)} = -3.05$, $p < 0.01$, for the violin; $t_{(368)} = -4.67$, $p < 0.01$, for the trumpet; $t_{(368)} = -3.52$, $p < 0.01$, for the double bass; $t_{(368)} = -2.22$, $p < 0.05$, for the classic guitar; $t_{(368)} = -2.23$, $p < 0.05$, for the bass; $t_{(368)} = -3.03$, $p < 0.01$ for the organ; $t_{(368)} = -2.35$, $p < 0.05$), indicating that a major level of acquaintance with the world of musical instruments may enhance the levels of appreciation for these instruments.

3.1.5. Frequency Comparison for Beliefs About Gender Appropriateness (Chi Square Test)

To examine whether the stereotypical tendency to consider an instrument more or less associated with a specific gender depended on participants' gender, the chi^2 test of independence was performed for each of the instruments considered, placing the gender of the participants as an independent variable and response categories as dependent variables. The original five expressed beliefs were reduced to three macro-categories: generally masculine ("Masculine only" and "Quite masculine"), generally feminine ("Feminine only" and "Quite feminine"), and neutral.

Correlations were significant for the following instruments: piano, singing, electric guitar, double bass, classical guitar, bass, accordion, and harmonica. Specifically, it was found that

- For the piano, $chi^2 = 14.07$, $p < 0.01$; therefore, although both gender subgroups mostly tended to consider the instrument as "neutral" in gender typicality, the second most frequent response for the boys was to consider it masculine, while for the girls it is to consider it feminine.
- For singing, $chi^2 = 9.18$, $p < 0.05$; in this case, although both subgroups tended to classify the instrument as "neutral", there was a more marked tendency among the boys to define it stereotypically as attributable to a specific gender (either male or female).
- For the electric guitar, $chi^2 = 11.48$, $p < 0.05$, so the subgroups differed in their response tendencies: while boys considered it more masculine, the majority of girls considered it as a neutral instrument, suitable for both genders.
- For the double bass, $chi^2 = 8.41$, $p < 0.05$ in this case, although both subgroups tended to classify the instrument as "neutral", there is a more marked tendency among the boys to define it stereotypically as attributable to a specific gender (either masculine or feminine).
- For the classical guitar, $chi^2 = 19.32$, $p < 0.01$, in this case for the boys the gap between the "neutral" category of responses and those relating to the "male" categories was less marked, highlighting a greater tendency for boys to hold extreme beliefs relating to the instrument.
- For bass, $chi^2 = 6.33$, $p < 0.05$, so the subgroups differed in their response tendencies: while boys considered it more masculine, the majority of the girls considered it a neutral instrument, suitable for both genders.
- For the accordion, $chi^2 = 13.31$, $p < 0.05$, so, again in this case, the difference in the subgroups concerned the prevailing response tendency: while boys considered it more masculine, the majority of the girls considered it a neutral instrument.
- For the harmonica, chi2 = 17.74, $p < 0.01$, showing that the gap between the "neutral" response category and the "male" categories was less marked for the boys, highlighting a greater tendency for boys to hold extreme beliefs relating to the instrument. In conclusion, the response tendencies to the predominantly selected categories exhibited discrepancies when considering subgroups divided according to gender. For the electric guitar, bass, and accordion, boys held more stereotypical gender beliefs, mainly

considering these instruments as masculine, while the girls tended not to notice this, judging the instruments neutrally as suitable for people of both genders. In other cases, in which the test had significant results, although the prevailing response in the two groups agreed, there was a tendency for boys to attribute "masculine" nuances to the instruments mentioned (piano, classical guitar, and harmonica). Finally, in the case of singing and double bass it is possible to hypothesize a tendency for the boys to attribute a gender to these instruments considered, be it male or female, while the girls maintained a perception of neutrality about these instruments.

Comparisons between frequencies of beliefs were also computed for the player/non-player subgroups. As for the gender groups, chi^2 statistics were generated for three macro-categories of beliefs: generally masculine ("Masculine only" and "Quite masculine"), generally feminine ("Feminine only" and "Quite feminine"), and neutral. No significant differences emerged for any of the instruments considered.

3.2. Qualitative Analysis

The motivations behind the beliefs about gender appropriateness of musical instruments, for which participants could choose among predefined responses, were considered. Based on findings from previous studies on the topic of gender stereotypes about musical instruments (Hallam et al., 2008; Stronsick et al., 2018; Harrison & O'Neill, 2000), statements to justify gender attributions for each instrument were extracted from the most frequent justifications added by children in defining gender appropriateness of the musical instruments. These have been considered in the definition of responses and used for performing *a priori* coding, grouping these motivations into four macro-categories:

- Physical characteristics of musical instruments (e.g., "it is heavy", "it takes a lot of strength/energy to play it").
- Acoustic characteristics of musical instruments (e.g., "it has a delicate sound", "it has a dark sound", "you have to like the sound").
- Models and examples of who performs with the musical instruments (e.g., "it is played by my favorite musician/singer", "I have only seen males playing it", I have only seen females playing it").
- Unspecific considerations (e.g., "it is for everyone", "other reasons").

Considering the musical instruments' division according to participants' categorization (neutral, feminine, masculine, ambiguous), the three most frequent responses selected were considered and analyzed. Responses for the group of "neutral instrument" (piano, singing, double bass, classic guitar, organ, flute, harmonica) are summarized in Table 10.

Table 10. Frequencies of the three most selected responses for motivated participants' beliefs about gender appropriateness of "neutral instrument".

	Piano	**Singing**	**Double Bass**	**Cl. Guitar**	**Organ**	**Flute**	**Harmonica**
First choice	it is for all	it is for all	it is for all	it is for all	it is for all	it is for all	it is for all
(n)	193	202	118	159	118	148	141
Second choice	it has a delicate sound	it is played by my favorite musician/singer	you have to like the sound	you have to like the sound	you have to like the sound	it has a delicate sound	you have to like the sound
(n)	64	58	59	56	59	104	68
Third choice	you have to like the sound	you have to like the sound	it is heavy/it has a dark sound	it has a delicate sound	it has a dark sound	you have to like the sound	I only saw males playing it
(n)	36	42	53	53	48	50	50

For all instruments, the most frequent motivation reported was a generic claim that the instrument "it is for everyone". Another frequent response was that "you have to like the sound" in order to choose to play a specific musical instrument, highlighting that the gender of the musician is irrelevant in the choice.

Considering the group for "feminine" and "masculine" instruments, the results are reported in Table 11.

Table 11. Frequencies of the three most selected responses for motivated participants' beliefs about gender appropriateness of "feminine" and "masculine" instrument.

	Harp	Trumpet	Drums	El. Guitar
First choice	it has a delicate sound	it is for all	it takes a lot of strength/energy to play it	it is for all
(n)	151	99	121	102
Second choice	I only saw females playing it	it takes a lot of strength/energy to play it	I only saw males playing it	I only saw males playing it
(n)	82	95	88	78
Third choice	it is for all	I only saw males playing it	it is for all	it takes a lot of strength/energy to play it
(n)	76	68	69	61

Nonetheless, among the most reported motivations were those linked to the models and examples of musicians, with references to their gender, and the acoustic and physical characteristics of the musical instruments, which highlighted the widespread "correlational" stereotypical belief that delicate = feminine, and strong/energetic = masculine.

For the "ambiguous" instruments' groups, the most frequent responses are reported in Table 12.

Table 12. Frequencies of the three most selected responses for motivated participants' beliefs about gender appropriateness of each instrument.

	Violin	Bass	Sax	Accordion
First choice	it is for all	it is for all	it is for all	it is for all
(n)	116	110	99	117
Second choice	it has a delicate sound	I only saw males playing it	I only saw males playing it	I only saw males playing it
(n)	98	60	74	69
Third choice	I only saw females playing it	you have to like the sound	it takes a lot of strength/energy to play it	you have to like the sound
(n)	59	58	64	52

In these results a contrast was particularly evident between motivations not based on stereotypical elements ("itis for everyone") and justifications involving report stereotypical associations, as for the groups of "male" and "female" instruments.

4. Discussion

The current study investigated Italian primary and middle school children's attitudes toward musical instruments. In particular, it examined whether participants showed

stereotypical beliefs about the gender appropriateness of instruments and how these beliefs were affected by the participants' genders and previous musical experiences.

In the responses to RQ 1 ("Do Italian primary and middle school students show specific stereotypical beliefs about the gender appropriateness of some musical instruments?") indications emerged of specific beliefs about gender appropriateness for certain musical instruments. While some were generally considered "neutral", that is for both males and females (e.g., piano, singing, double bass, classic guitar, organ, flute, and harmonica, some other were considered gender-oriented (such as the harp, trumpet, drums, and electric guitar), and some beyond those tended to be weakly oriented toward gender specificity. These findings are in line with previous studies (Stronsick et al., 2018), in which instruments such as the guitar, trumpet, and drums were generally found to be viewed as "masculine", while instruments such as the harp and violin were considered generally feminine-oriented. Moreover, considering the piano as a neutral instrument, suitable for both boys and girls, aligns with that reported previously by Tarnowski (1993). However, in contrast with previous results (Hallam et al., 2008; Cooper & Burns, 2021; Wrape et al., 2016), in the current study the flute was considered quite neutral, instead of typically feminine.

When examining the motivations children reported for considering a specific instrument as gender-oriented, three macro categories emerged, along with an additional one involving general and unspecified claims. In line with the literature, children referred to specific characteristics of the instruments (Tarnowski, 1993); Stronsick et al., 2018), such as the sounds they produced and also mentioned (Cooper & Burns, 2021), the role of significative models in shaping their stereotypical beliefs about gender appropriateness (Sadker & Sadker, 1985). The importance of models, both in the family and among famous people (musicians and singers) may be particularly effective when used as a tool for contrasting stereotypical beliefs preventing students from approaching a musical instrument considered "inappropriate" for their gender. If stereotypical beliefs about gender appropriateness of musical instruments are shared by the social group of peers, the social influence of them may prevent children from approaching instruments that are not considered appropriate for their gender, and, according to current findings, this seems particularly relevant for boys. Music educators could highlight examples in which skilled musicians offer a counter-stereotypical model for students, in order to promote a greater awareness of the choices available when deciding which instrument they would like to study.

The RQ2 ("Are there significant differences with respect to students' attitudes towards different musical instruments considering the level of appreciation and the presence or absence of stereotypical beliefs referring to the gender appropriateness of the instruments?") results showed a tendency for a major preference for instruments conventionally considered "feminine" (among girls) and masculine (among boys), in accordance with previous findings (Harrison & O'Neill, 2000). The transverse flute was considered "neutral" in the questions regarding beliefs about gender appropriateness, but here it was significantly more greatly appreciated by girls than boys. This implies that sometimes stereotypical beliefs are implicit and particularly rooted even if people are not totally aware of them. Considering the level of acquaintance with musical practice, significant differences emerged in the levels of appreciation for instruments among the "players", and "non-players", supporting the hypothesis that a greater level of knowledge favors a greater appreciation of musical instruments in general. This underlines why teachers and educators should encourage their pupils to try out and experience all musical instruments, including ones that are less common and fashionable (Harrison & O'Neill, 2000).

Concerning the effect of gender on gender stereotypical beliefs about musical instruments, a general tendency to attribute "masculine" (and in fewer cases, feminine) characteristics to certain musical instruments emerged among the boys. They appeared

more inclined to display stereotypical beliefs regarding the gender appropriateness of musical instruments, while girls defined most instruments as neutral. This finding is crucial and should be regarded carefully, as these different tendencies could influence girls' choices of musical experiences and also women's career prospects in the musical field (Sergeant & Himonides, 2019). The role of gender seems powerful in determining stereotypical beliefs, more than having previous experience with musical practice; in the current results, no significant differences emerged in the frequencies of beliefs expressed by players and non-players. These findings highlight the need for music teachers and educators to encourage students to experiment with different musical instruments, as well as consider their different characteristics and their use in different musical styles. It is important to continue raising awareness of these issues and promote an environment where children can freely explore any instrument without feeling bound by gender expectations. The choice of a specific instrument should involve several considerations that only a practical approach based on "learning by doing" may support. Role models in the family, school, and also among famous musicians and singers may help pupils break down some stereotypes that limit choice in music education and help them to adopt a more gender-neutral perspective about musical instruments. Accordingly, specific advice for music educators will be given in Section 5.

The current study has some limitations, which should be carefully considered when designing future research. First, participants are representative of a limited geographical area, and it would be beneficial to extend this analysis into other Italian regions, in order to verify the findings. Another issue is the approach of collecting the qualitative responses on the justifications for gender-appropriateness beliefs. Using pre-defined responses has the advantage of collecting more data but it does not cover all possible answers that could emerge with an open response format. In addition, the "neutral" response "It is for everyone" created some confusion, since it implies at the same time, the absence of justification (in the case a stereotypical belief was not present) and the general recognition that a musical instrument has characteristics that fit both male and female players. This response should be re-phrased in future research studies on this topic. Another issue related to the difficulty of making comparison according to the nationalities of students: the Italian and non-Italian subgroups of participants were quite imbalanced (Italian n = 334, non-Italian n = 36), which made it challenging to perform inferential statistical analyses. However, a comparison of gender stereotypes of musical instruments based on students' cultural background may be very informative, and it should be considered and planned in future research implementations. Further studies should seek to better assess the impact of different cultural backgrounds, by reaching a wider number of non-Italian participants.

The current study had mainly an exploratory nature and it was performed among Italian students, it would be suggested to consider also a qualitative survey in future research, to examine in greater depth the main reasons that supported the development of stereotypical beliefs, in order to define specific suggestion for parents, teachers, and educators on how to contrast those stereotypes and to assure equity for children in music education. In addition, considering the potential impact of stereotypical beliefs about gender when making the choice about which musical instrument to start to play, a quantitative questionnaire investigating these beliefs may be developed and validated as a potential support for music educators.

5. Conclusions and Practical Suggestions

Young people's choices of musical instruments are based on a combination of cultural, social, and personal factors. Although gender influences continue to play a significant role, more and more young people are choosing instruments based on individual preferences

and personal inspirations. It is important to continue to promote the idea that every musical instrument is suitable for everyone, regardless of gender, so that young people can express themselves freely through music. The role of music teachers is crucial in this process. By creating an inclusive and encouraging environment, they can help all students explore their musical interests without feeling limited by gender bias. This could include exposure to musicians of different genres and styles, or musical activities that emphasize diversity and creativity rather than traditional norms. Such actions are an important step toward greater equity in the music world, where every child can feel free to choose the instrument they love, regardless of social expectations.

These findings have significant implications for music education and the promotion of gender equality. It is crucial to raise awareness among parents and educators about the gender stereotypes associated with musical instruments and encourage an environment where all children can freely explore a variety of instruments without feeling limited by traditional expectations. This can help create a more inclusive and diverse music culture.

Teachers and parents should encourage young people to explore different instruments without imposing gender stereotypes. They should also increase exposure to different instruments, offering the opportunity to try less common musical instruments and presenting diverse role models in all musical genres.

Social media is one of the most powerful platforms to reach young people and promote diverse role models. Teachers, parents, and educators may indicate to students well-known musicians who already challenge gender stereotypes, such as female drummers or guitarists, or male players of the harp or flute, to broaden the message.

Events and workshops offer a hands-on experience for young people, where they can see and interact with different musicians. Musical festivals and school workshops may host musicians, including women to perform and hold workshops on instruments that defy gender expectations, such as a girl playing the drums or a boy playing the violin.

School plays a key role in shaping perceptions. Updating educational materials, such as textbooks, posters, and audio and video materials, can help to pass on the message that music is gender neutral. It is also important to mention specific historical examples, telling the stories of musicians who have overcome gender barriers in music, such as drummer Karen Carpenter, bassist Tal Wilkenfeld, or violinist Niccolò Paganini, to demonstrate the fluidity between genders and instruments. Collaborations with music schools are also highly recommended, for encouraging a wide range of experiences with musical instruments.

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