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The Relationship between Gender and Children's Preference for Choosing Musical Instruments and its Influence on Teachers

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Abstract: In the last two decades, society has made great strides toward gender equality in many areas (England et al., 2020)[1]. Arising from these strides is increased sensitivity and consciousness on the various interconnections between gender and everyday life and life choices. This essay in particular focuses on gender and music and specifically on relationship between gender and children's preference for choosing musical instruments and its influence on teachers.

Keywords: music, music education, gender, music instruments, society

Introduction

This essay delves into theories such as gender constancy theory and gender schema theory to analyze the connection between gender and children's instrument preferences. The literature review extends the discussion by highlighting studies like Hallam et al. (2008)[2], indicating specific preferences within musical genres and instruments, and Negus (1999)[3], emphasizing the influence of social groups on musical choices. Subsequently, the essay explores the implications of these influences on music education. The methodology is scrutinized and applied, followed by the presentation and discussion of the research results.This research seeks to address the following research questions:

- Is there a relationship between gender and a child's preference for choosing a musical instrument?
- What are the implications for music education teachers?

1. Research significance

In the view of Wrap et al. (2014)[4], gender stereotypes when choosing musical instruments can limit a child's opportunities in music learning and development. Stein (2013)[5] adds that gender stereotyping of musical instruments has significantly impacted women's role in music throughout history. This creates a need for music education to address the issue. For music teachers, gender stereotypes in music can affect the achievement of their music education program objectives (Standley, 2000)[6].

2. Literature review

2.1 Theoretical review

Various theories offer insights into the relationship between gender and children's instrument preferences. Key theories include gender constancy theory and gender schema theory. Gender constancy theory, as outlined by Ruble et al. (2007)[7], posits that gender-typed behavior evolves over time. This theory identifies stages such as gender identity (2-3 years), gender stability (4-5 years), and gender

consistency (5-7 years), wherein children progressively adopt gender-consistent behavior by emulating peers of the same gender. Conversely, gender schema theory, advanced by Starr and Zurbriggen (2016)[8], proposes that upon developing gender identity, children create an in-group/out-group schema, categorizing behaviors as male or female. Subsequently, they selectively exhibit behaviors aligning with their gender identity while disregarding gender-inconsistent actions.

Both theories find support in the social learning and constructivism frameworks. Social learning theory, according to Pratt et al. (2009)[9], asserts that gender learning occurs gradually through role models, including peers, parents, and teachers. This process involves modeling, attention, retention, production, and motivation, with reinforcement or discouragement shaping behavior. Concurrently, social constructivism theory, posited by Adams (2006)[10], holds that identity is shaped by the social and cultural milieu. Applied to music, these theories elucidate how gender stereotypes influence instrument selection and other musical roles based on cultural perspectives. In the current study, they provide insights into how gender identity perceptions impact children's instrument choices within the context of prevailing social and cultural norms.

2.2 Relationship between gender and children's preference for choosing musical instruments

Numerous studies have explored the intricate relationship between gender and children's musical instrument preferences. Delzell and Leppla (1992)[11] aimed to investigate whether male and female children exhibit distinct preferences for musical instruments based on their gender. This inquiry is rooted in Kunst's (1958)[12] pioneering work, recognizing the association between gender and musical instruments as a pervasive sociological phenomenon. Notably, studies like Abeles and Porter's (1978)[13] identified consensus among participants regarding the perceived masculinity or femininity of various instruments. Delzell and Leppla (1992) found that drums and flutes often occupy opposing ends of the gender spectrum, with drums viewed as masculine and flutes as feminine. Consequently, boys commonly express a preference for drums, while girls lean toward flutes.

Another focal point in this line of research is understanding the factors influencing disparate choices among children of different genders. Eros (2008)[14] attributes gender stereotypes in music to cultural and social environmental influences, with family, peers, and the media playing crucial roles in their transmission. These deeply ingrained stereotypes persist across generations (Hallam et al., 2008). Abeles et al. (2014)[15] highlight the reinforcement of gender stereotypes in instrument selection through peer reactions, potentially leading to bullying and a loss of popularity, as noted by Cramer et al. (2002)[16]. Children, thus, tend to avoid instruments deemed gender-inappropriate.

Examining potential shifts in gender influence on music instrument preferences over time, Abeles (2009)[17] found that the sex-by-instrument distribution has remained largely unchanged over three decades. However, there is a notable increase in girls' willingness to play nonconforming gender instruments in a band setting. Additionally, Kim's (2021)[18] study indicated a modest decline in sex stereotyping, particularly among older children.

2.3 Gender stereotypes in music classrooms and implications for the music teacher

After establishing that gender stereotypes impact a child's preference for musical instruments, various studies have sought to examine the implications of this behavior on music education. According to Abeles et al. (2014), gender stereotypes in music can have a lasting effect on children. For example, it can provoke

them to quit participating in music, especially when they become objects of ridicule or harassment from their peers when they choose 'the wrong instrument" (Cramer et al., 2002). In the view of Taylor (2009)[19], one of the implications of gender stereotypes in music is that they constrict behavior resulting in a loss of opportunities. For example, they restrict an individual's experience by limiting their participation in music ensembles.

To resolve gender stereotypes in a music classroom, Bruce & Kemp (1993)[20] suggest that music education and educators should promote instruments as gender-neutral. Furthermore, according to Standley (2000), educators should ensure that the nonconforming gender first presents instruments. The rationale is that children's attitudes towards an instrument can be changed depending on the method of presentation. Wrap et al. (2014) suggest that teaching practices and strategies often reinforce gender stereotypes in music. To reduce this, Lesser (2016)[21] suggests that music classes should present students with examples of musicians and role models who do not conform to instrument stereotypes.

3. Research methodology

3.1 Research design

This study explores the correlation between gender and children's instrument preferences and its impact on teachers. A quantitative approach is chosen to collect statistical data efficiently from a substantial number of respondents, ensuring diverse perspectives and enhancing result credibility.

3.2 Sampling

The target population consists of 11-14-year-old students in Chinese schools. Using a convenience sampling method based on accessibility and willingness, 90 participants are selected for this research.

3.3 Data collection

Primary data is gathered through online questionnaires, chosen for their cost-effectiveness and speed. The head teacher's consent is obtained before distributing the questionnaire link to students. Participants decide to consent by clicking “Submit” at the end of the questionnaire.

3.4 Data analysis

Quantitative data is presented through descriptive statistics, including mean scores and percentages. Excel is employed for analysis, and graphical representations such as tables, pie charts, and bar charts are incorporated for clarity.

3.5 Ethical considerations

The head teacher's initial consent and subsequent distribution of the questionnaire link ensure ethical procedures are followed. Participants' informed consent is obtained through the "Submit" click, maintaining confidentiality as no personal identifiers are collected. The questionnaire refrains from seeking confidential information for further participant protection.

4. Findings

4.1 Data analysis

This chapter analyses the research data collected and analyzed in this study to achieve the set research questions.

4.1.1 Analysis of demographic questions

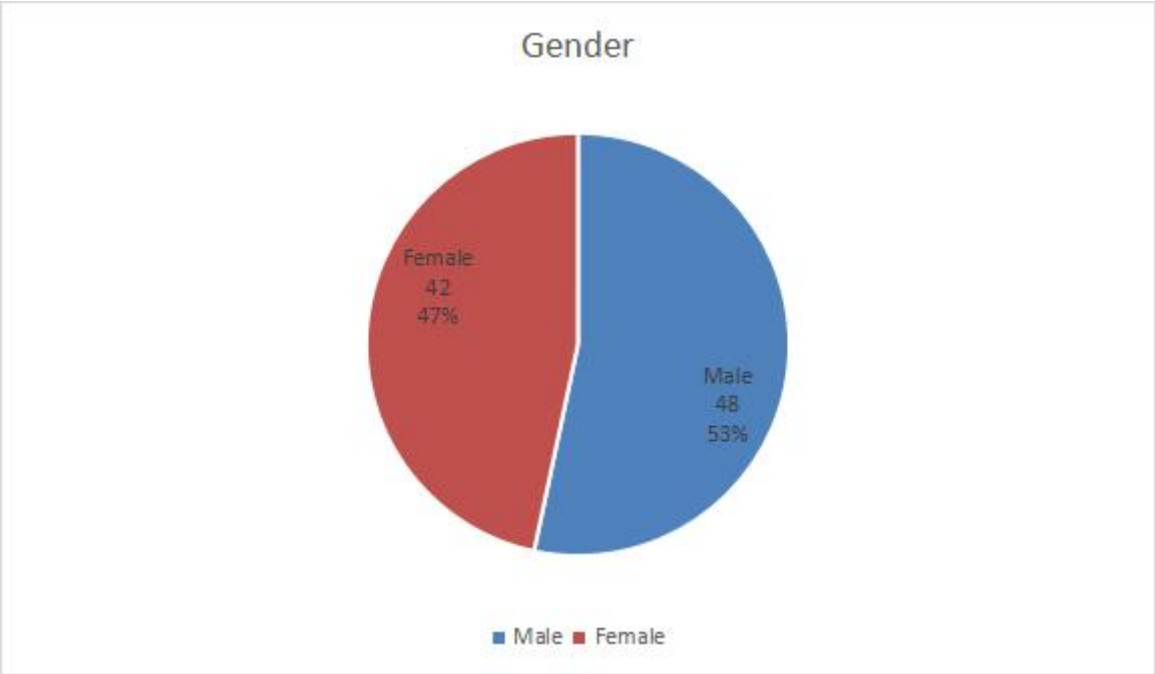

Figure 1 Frequencies related to gender

Figure 1 above shows that there was only a tiny difference in the number of male and female respondents at 53% for males and 47% for females. This can be explained by the fact that there were no vast differences across gender among the target population. The finding also illustrates that there was no research bias toward gender.

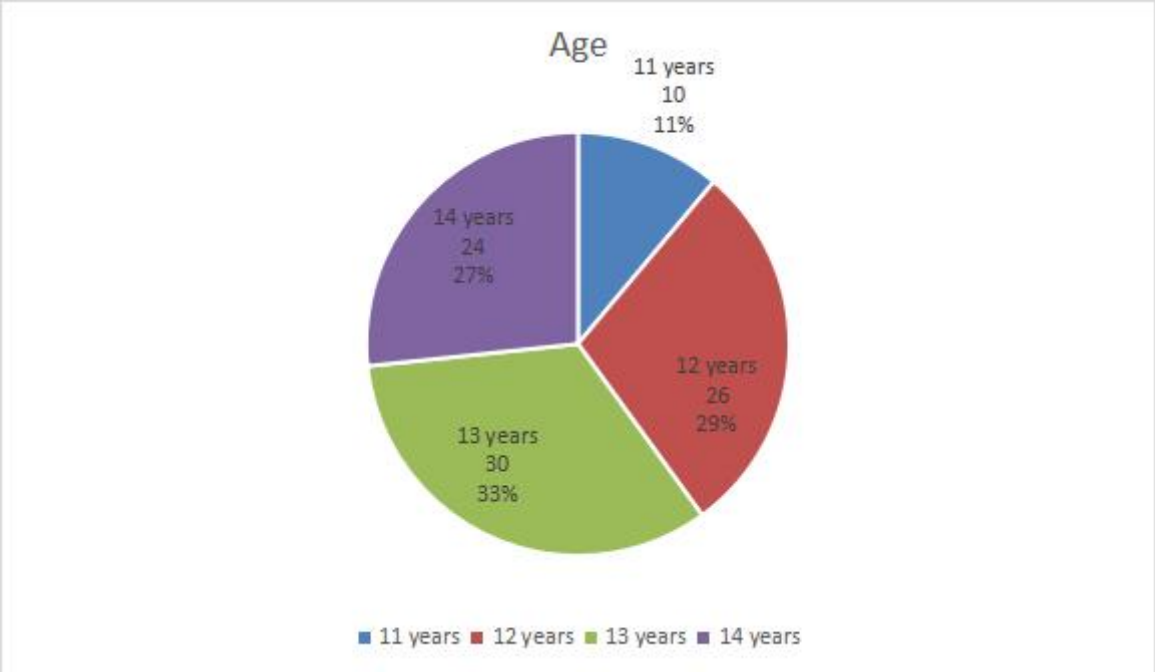

Figure 2 Frequencies related to age

The target population for this research included students aged 11 to 14 years in China. Figure 2 shows that the majority of the respondents were aged 13 years 33%, with an almost equal number aged 12 years 29%. Only 11% of the respondents were aged 11 years. Those aged 12, 13, and 14 years were more

interested in answering the research questions compared to those aged 11 years.

4.1.2 Gender stereotypes in selection of music instruments

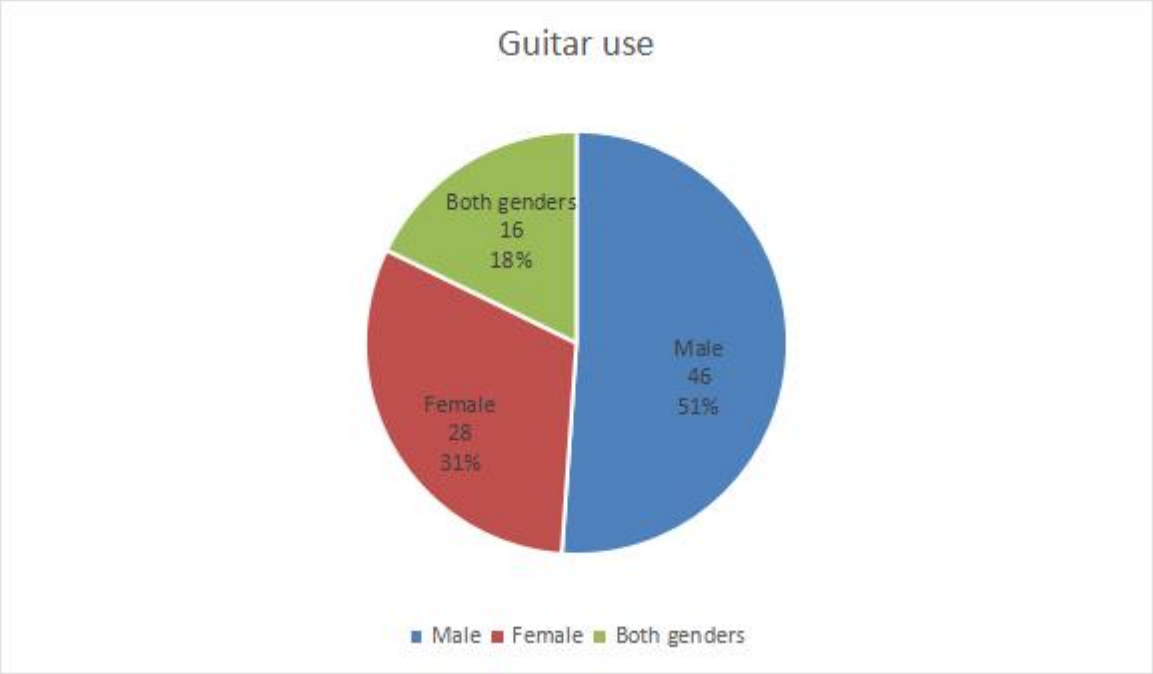

Figure 3 Frequencies related to guitar

Figure 3 above shows that the majority of the respondents, 51%, associated guitars with the male gender. Only 31 % of the respondents associated a guitar with the female gender, and 18% indicated that they associated the guitar with all genders rather than only the female or male.

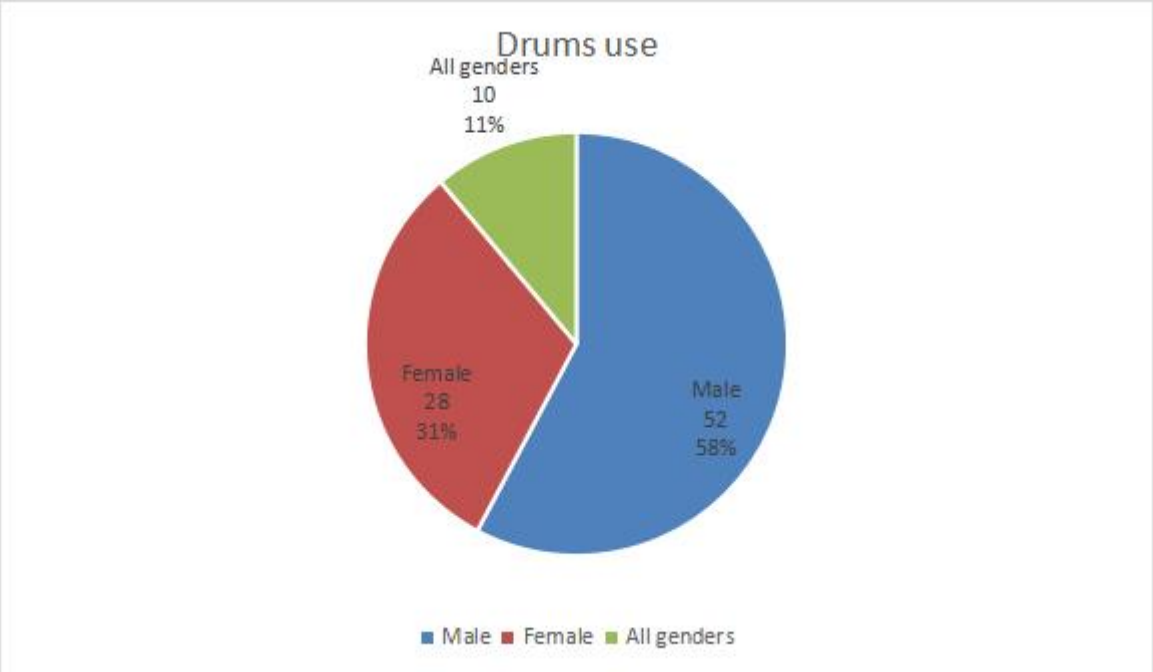

Figure 4 Frequencies related to drums

Figure 4 above shows that most respondents associate drums with the male gender. Only 31% of the respondents indicated an association between drums and the female gender. Another 11% of the respondents had no gender preference and associated the guitar with all

genders.

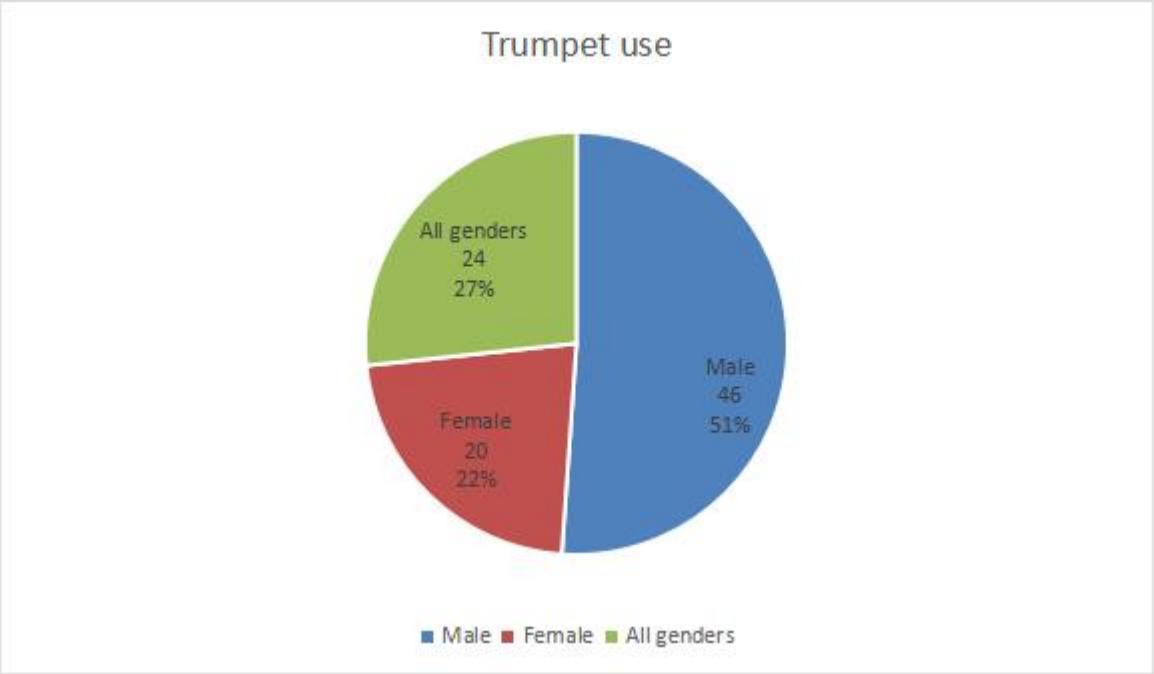

Figure 5 Frequencies related to trumpets

Figure 5 above shows that most respondents associate trumpets with the male gender, 51%. Another 27% of the respondents did not indicate a gender preference and instead associated trumpets with both genders. Only 22% of the respondents associate trumpets with the female gender.

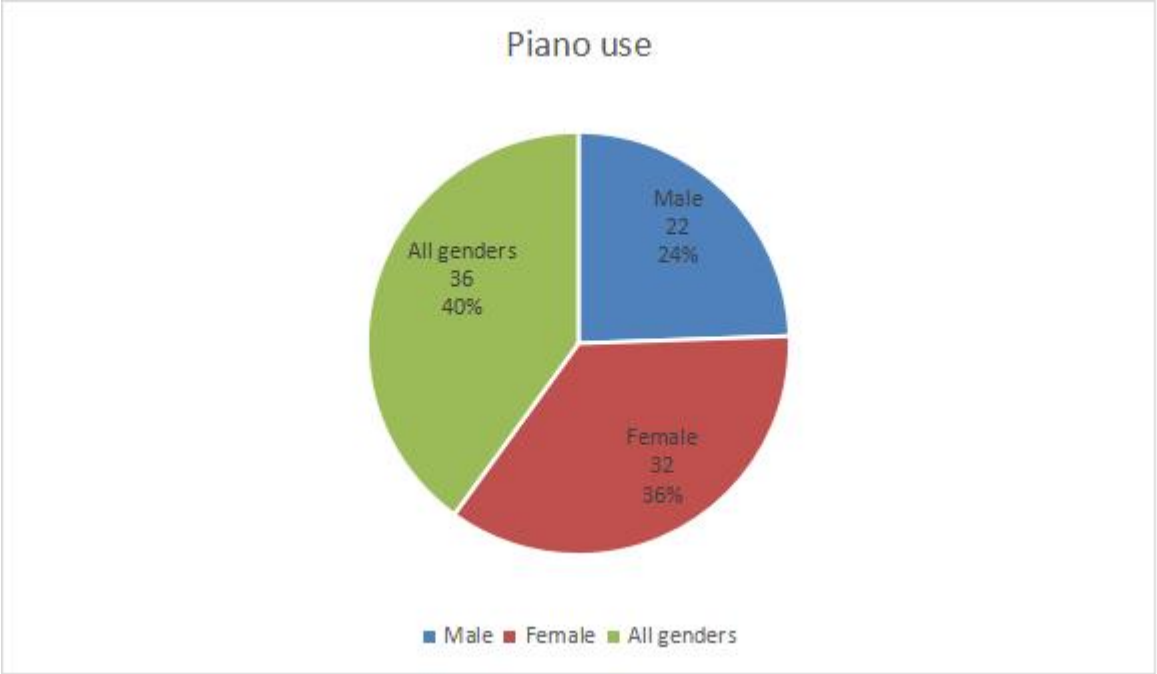

Figure 6 Frequencies related to piano

Figure 6 above shows that a large number of respondents do not associate the piano with any one gender but all genders at 36%. This indicates that the majority views the piano as a gender-neutral musical instrument. 36% of the respondents indicated that they associate the piano with the female gender, and only 24% indicated it with the male gender.

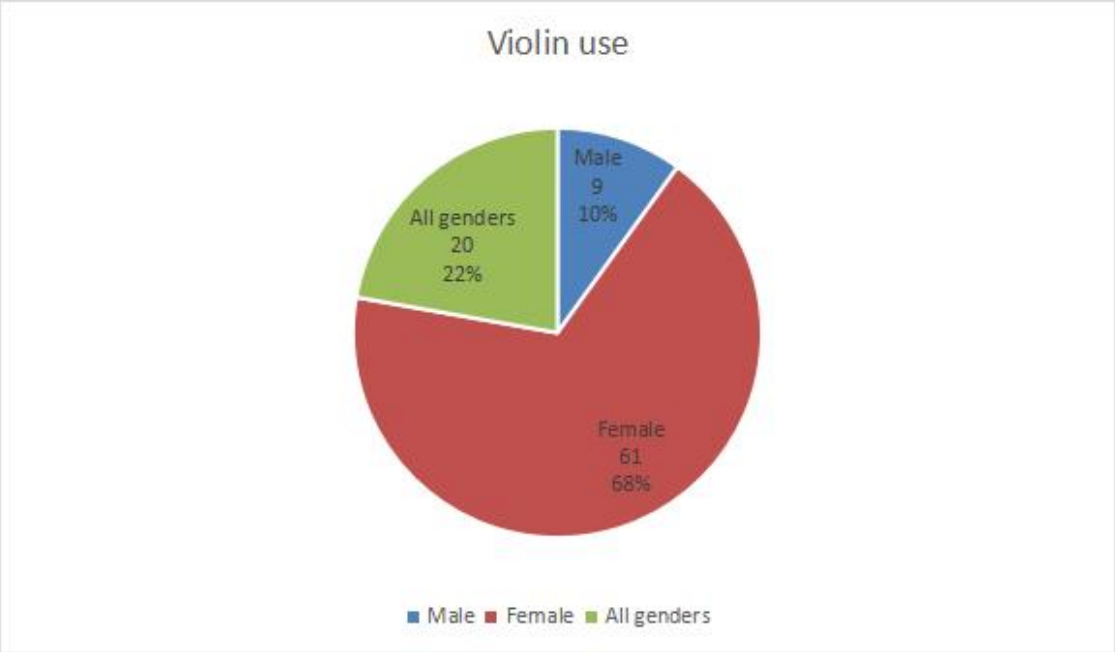

Figure 7 Frequencies related to violin

Figure 7 above shows that the majority of the respondents, 68%, associate violin with the female gender. Another 22% of the respondents indicated that they associate violin with all genders. Only 10% of the respondents indicated that they associate the violin with the male gender.

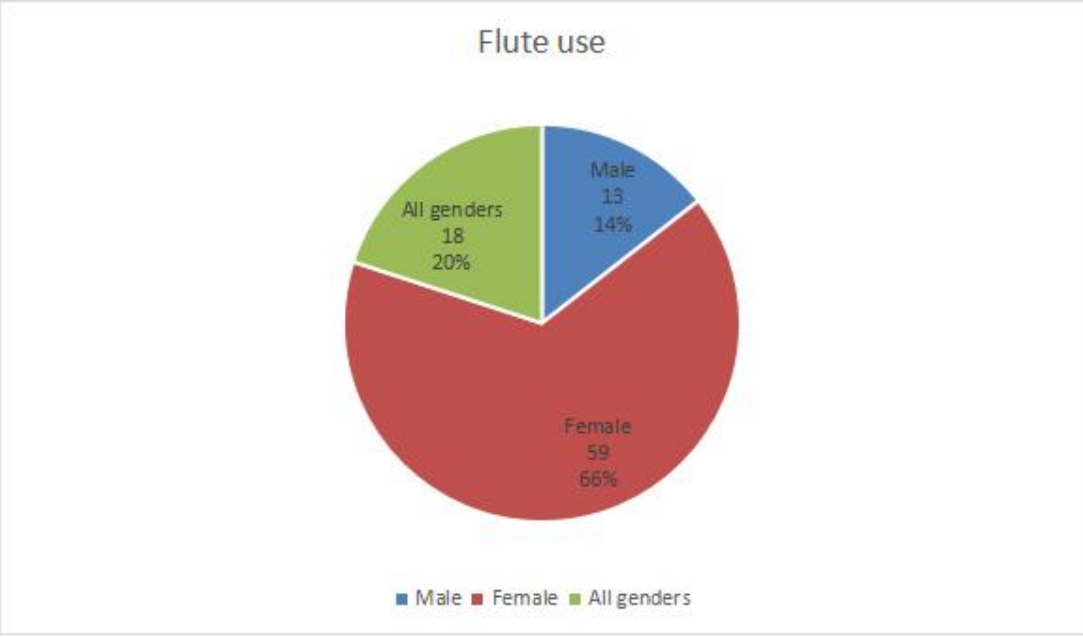

Figure 8 Frequencies related to flute

Figure 8 shows that the majority of the respondents, 66%, associate flute with the female gender. 18% of the respondents indicated that they associate the flute with all genders, and only 14% indicated that they associate it with the male gender.

Table 1 Gender stereotypes in selection of music instruments by children

	Guitar	Drums	Trumpets	Piano	Violin	Flute
Boy	46	52	46	22	9	13
Girl	28	28	20	32	61	59

All genders	16	10	24	36	20	18
Total	90	90	90	90	90	90

Research findings on gender stereotypes in musical instrument selection reveal distinct gender associations among children. In accordance with Abeles et al. (2014), children exhibit awareness of gender-specific instrument associations, designating guitars, drums, and trumpets as male-associated and violins and flutes as female-associated. This aligns with the earlier work of Abele & Porter (1978), emphasizing the perception of drums, trumpets, and trombones as masculine and commonly played by males, while flutes, clarinets, and violins are seen as feminine and predominantly played by females. Notably, the piano emerges as the sole instrument viewed as gender-neutral by the majority of respondents.

4.2 Role of a music teacher in dealing with gender stereotypes in the music classroom

Table 2 Role of teacher in dealing with gender stereotypes in the music classroom

	N	Minimum	Maximum	Mean
My music teachers influence my attitude towards music instruments	90	1	5	3.86
I would follow the recommendation of my music teacher when choosing a music instrument	90	1	5	3.52
My choice in music instrument is influenced by my role models in music	90	1	5	3.64

Results in table 2 showed that most of the respondents, at a mean of 3.85, believed that their music teacher influenced their attitude toward musical instruments. A majority of the respondents, with a mean of 3.52, also said they would take their professors' advice when selecting a musical instrument. At a mean of 3.64, most respondents also indicated that their role models influenced their choice of musical instruments in music.

In the view of Cramer et al. (2002) and Taylor (2009)[22], gender stereotypes influence music education and the music classroom. These stereotypes can restrict a child's musical experience and deny them opportunities. Therefore, the teacher has a role in combating gender stereotypes in music class. The research findings support the view by Wrap et al. (2014) that a teacher influences pupils' attitudes toward musical instruments. They can use this influence to reduce gender stereotypes' by introducing the students to music role models who do not conform to instruments stereotypes supporting the view by Lesser (2016).

5. Summary and conclusion

5.1 Conclusion

This research investigated the relationship between gender and children's musical instrument preferences, revealing a significant influence of gender on these choices. The association between certain instruments and masculinity or femininity, rooted in societal stereotypes, was evident. Eros (2008) attributes these stereotypes to the social-cultural environment, supported by gender schema, constancy theories, social learning theory, and social constructivism theory.

Additionally, the study explored the implications of gender stereotypes on music education and the expectations placed on music teachers. A literature review underscored the lasting impact of these stereotypes, leading to potential issues such as bullying and loss of popularity in school (Cramer et al., 2002). Abeles et al. (2014) highlighted the risk of children quitting music participation, while Taylor (2009) emphasized the limitations on a child's musical experience and missed opportunities. Furthermore, the research identified teachers as influential in shaping a child's instrument choice, paving the way for

implications discussed in the subsequent section for music teachers.

5.2 Recommendations

Children are more likely to follow the recommendations of their teachers regarding their choice of musical instrument. Therefore, teachers should use their influence to promote the view of musical instruments as gender-neutral. According to Bruce & Kemp (1993), this can resolve gender stereotypes in the choice and use of musical instruments. The second recommendation is that teachers should present students with examples of musicians and role models who do not conform to instrument stereotypes. According to the research findings, a child's choice of a musical instrument is significantly influenced by their role models in music.

5.3 Suggestions for future research

This research has two main research limitations. First, the research only investigates 90 participants, a small sample compared to children aged 11-14 who play a musical instrument in China. Future research can increase the sample size to reach at least 300 participants. Second, this research only focuses on children aged 11-14. Future research can compare this age group with lower and higher age groups to examine the relationship between age and gender stereotyping of musical instruments. Third, this research is quantitative, which makes it lack an in-depth understanding of gender stereotyping of musical instruments, and what causes this phenomenon. Thus, future research can use the interview to gain insight into the respondent's opinions, views, and emotions.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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