


Relationship Between School Music Context and Music Career Choice Among Chinese Adolescents: A Framework Based on a Context–Process–Outcomes Model

Rui Guan¹, Mengmeng Zhang², Xiantong Yang³ 

¹Scientific Research Center, Shanxi Art Vocational College, Taiyuan, People's Republic of China; ²School of Education, Minzu University of China, Beijing, People's Republic of China; ³Faculty of Psychology, Beijing Normal University, Beijing, People's Republic of China

Correspondence: Mengmeng Zhang, School of Education, Minzu University of China, Beijing, People's Republic of China, Email zhangmm817@foxmail.com; Xiantong Yang, Faculty of Psychology, Beijing Normal University, Beijing, People's Republic of China, Email xtyang93@foxmail.com

Background: In response to the wide-ranging concern of career choice, the present study aimed to explore the antecedents and internal mechanisms of choosing a music career.

Methods: Based on the model of context–process–outcomes, the school context (eg, school musical activities, musical specialized classrooms, music broadcasting and music teachers) was incorporated into an integrated model as predictors. We selected music interest and music value as mediators. A total of 28,018 adolescents in public secondary school completed psychometric questionnaires.

Results: The results of structural equation modeling indicated that school musical activities, musical classroom, and music teachers were all positively related to music interest and music value, which in turn positively predicted music career choice but the indirect impact of school musical broadcasting on music career choice via music value is not valid.

Conclusion: This survey investigated a large national sample of adolescents for music career choice and its relevant antecedents based on the context–process–outcomes model. There was a significant influence of school music context on students' music career choice. Furthermore, music interest and music value partially explained the indirect psychological process between school music context and music career choice.

Keywords: context–process–outcomes model, school music context, career choice, music interest, music value

Introduction

Music career choice is an important topic in the field of occupational psychology.¹ Some recent studies pointed out that the classical music industry is facing urgent challenges as more and more performance graduates find it difficult to become full-time professional musicians.^{2,3} That is to say, although there are thousands of music performance graduates every year, few of them are engaged in full-time performance careers.^{3,4} To address this challenge and enhance students' music career choice, the researchers aim to solve this problem from the perspective of influencing factors related to music career choice. For instance, some studies have examined teachers' intentions related to their values, motivations and identity across different cultures.^{5–7} In addition, sporadic studies have indicated that some antecedents impacted students' career choice intentions, including music motivation (eg, intrinsic motivation, expectation, self-efficacy, self-determined motivation),^{5,8–10} music environment,¹¹ music experience¹² and so on. However, the relationship between school music context and career choice in the music field is still unclear in large-scale secondary school adolescents.¹³

Additionally, the previous studies mainly focused on the factors influencing university students' career choice; the music career choice of secondary school students in China, to a certain extent, has long been neglected. There are two main reasons for this situation: First, the previous studies mainly focused on the factors influencing college/university students' career

choice,^{14,15} due to the emergent and realistic need to earn a living. In striking contrast to college students, school relatively deprive most secondary school students' opportunities of career choice and career planning, because most Chinese middle school students have to deal with academic competition and cope with college entrance examinations.^{16,17} Second, the choice of music career and its influencing factors have not been paid necessary attention to by the public because Chinese teachers and parents have always treated music as a minor subject,¹⁸ rather than a major subject such as math and Chinese. Therefore, understanding the background and process factors that affect the music career choice of Chinese middle school students will be beneficial in terms of providing guidance for their career development.

Under the current situation, it is necessary to carry out research to understand the factors that affect the music career choice and further effectively promote the career development of students. Although some scattered associated factors have been known,¹⁹ it seemed to have a shortage in integrated theoretical models pertaining to influential factors, and little is known about the psychological mechanism underlying the models. To bridge this gap, using the context–process–outcomes model as a base,²⁰ this research has revealed the antecedent context factors, as well as examined the internal mediating process. Our study expands the model in the field of music career choice, and provides effective supports for adolescents' psychological processes and future choices by answering research questions.

Music Career Choice

As a specific aspect of career choice, music career choice was defined as the individual decisions or expectancy to pursue music-related work as a future profession.¹⁹ The implications of music career choice are important, as they may have influence on people's personal health/well-being,²¹ holistic development,²² and the cultural diversity/prosperity of society.²³ With regard to the dimensions of music career choice, the existing literature posited that it would be multifaceted and discrete.¹⁹ Specifically, according to the field of expertise, the types of music careers could be mainly categorized into two clusters: music educators (eg, music teachers) and music creators (eg, musicians, singers, etc.).^{24,25} Specifically, the main role of music teachers is to impart to students knowledge accumulated by predecessors, while the professional musicians are to give a music performance and create new musical compositions. The prior studies have separately unraveled the influential factors related to career choice of the music teachers and professional musicians who work in urban areas.^{24,25} However, given that these two occupations both belong to music career, it is necessary to study their common antecedents in a comprehensive model.

Additionally, research on music career choice of secondary school students before they enter high school is noticeably slim. In the past, most studies mainly focused on the music career choices of pre-service teachers,²⁸ in-service teachers,²⁵ and professional musicians.²⁴ Only a small number of studies in the educational field conducted instrumental multiple cases method to explore high school students' pursuit of music career.¹³ However, since these studies did not adopt quantitative methods, it was hard to reveal the direct and indirect relationships and their effect sizes.

Admittedly, it is important to examine the career option of pre-service or in-service music teachers; however, research on secondary school students' career choices is important as well, as secondary school is a critical period for establishing students' ideal future careers.²⁶ In addition, helping middle school students set career goals and clarify their development paths could enhance their learning motivation²⁷ and help them achieve higher career goals.²⁸ To sum up, research needs to investigate the antecedents and internal mechanism of middle school students' music career choice.

School Music Context and Music Career Choice

School context is the dynamic system that affects a series of aspects of student learning, including affective, social, behavioral as well as academic domains.²⁹ Talbert and McLaughlin further complemented and adapted the conceptualization of school context³⁰ and defined the school context as a complex process that encourages powerful learning and feedback. According to this definition, the school context including learners and their environments (eg, classroom, teacher, and schools) are conceptualized as parts of a single whole. Drawing upon the school context model, school context usually includes three indicators: classroom features, teacher communities, and schools,²⁹ and according to the concept of school context in the model, the school music context refers to the dynamic or static system containing a range of musical factors that influence students' music learning. In this system, the dynamic elements refer to the interpersonal factors, such as musical activities and teacher–student relationship, while the static elements are usually defined as

impersonal factors, such as musical classroom, musical broadcasting, etc. All those factors in school music context could have the potential impact on students' music learning experiences which highly related to their music career choice.^{13,31}

Furthermore, there is some reliable evidence that music career choice may result from the school music contexts to which many students are exposed. The person–environment fit theory indicates that if the environment matches the needs of the individual it could promote the occurrence of the corresponding behaviors.³² For example, the behavior of music career choice would be initiated when the school music context is suitable. Some empirical studies supported this relationship between school music context and music career choice from different facets, including musical activities, musical classrooms, music teachers, music broadcasting.^{13,33–35} First, musical activities play the connective role in teacher–student interaction regarding music tasks. Recent studies have pointed out that participation in community music groups or musical activities such as music summer camps have an imperceptible and positive impact on career choices.³³ Second, in the classroom environment, students are able to experience higher levels of music enjoyment, participation and teacher support, which enhance motivation to learn³⁴ and could further predict aspirations of a music career.¹ Third, building off earlier studies, music broadcasting may possibly been seen as a type of music-rich resource in school context, which, similar to science-rich resources,³⁵ may link with students' music feeling and encourage students to pursue a music-related occupation. Finally, given that music teachers are students' instructors and mentors in the path of music, school music educators and their experiences play a role in influencing the decision of students to engage in music education career.¹³

According to the expectancy-value model of achievement, appropriate educational environments offer students expectation of career success and achievement-related choice.³⁶ Because music career choice is a specific expectation in musical areas and conforms to the character of general educational expectation, and school music context is a vital part of holistic educational environments, it is reasonable to infer that school music context could positively link to students' music career choice (Hypothesis 1).

Music Interest and Music Value as Potential Mediators

Motivation to learn music, including intrinsic motivation (eg, music interest) and extrinsic motivation (eg, music value), may mediate the relationship between school music context and music career choice. Based on the theoretical model of context–process–outcomes,²⁰ motivation is a vital part of the psychological process that plays the mediating role between school environment and behavioral outcome. According to the source of motivation, it could be divided into two types: intrinsic motivation and extrinsic motivation.³⁷ Intrinsic motivation is the motivation introduced by an individual's internal needs, such as the interest in music itself; while extrinsic motivation is that generated from outside incentives, such as the value of music tasks or activities. Individuals could be motivated to pursue a specific goal (eg, career choice) influenced by these two kinds of motivation.³⁸

In addition to theoretical evidence, there are ample empirical studies supporting the potential mediating role of motivation (ie, music interest and music value) between school music context and music career choice. On the one hand, school music context (eg, musical activities, classroom, teachers, and broadcasting) may predict students' motivational process (ie, music interest and value). Regarding the association between musical activities and motivation, adolescents' motivational beliefs were positively predicted by patterns of participation in musical activities during longitudinal development.³⁹ As for the musical classroom which could improve students' music skill by providing enough equipment,⁴⁰ their music motivation was increased by a musical classroom in which they could experience higher enjoyment of and engagement with music.³⁴ Furthermore, according to the social cognition theory which posits that environmental factors are the source of individual motivation and cognition, broadcasting in schools is an important offline platform for information dissemination⁴¹ and to provide musical climate, playing an implicit role in students' motivation to learn music.⁴² Finally, music teachers could enhance students' motivation and involvement in composition learning by helping students infuse their work with interests, experiences and so on.⁴³ In general, the school music context including musical activities, classroom, teachers, and broadcasting may predict students' intrinsic and extrinsic motivational mediators (ie, music interest and value).

On the other hand, related studies show that students' music interest and value may link to their music career choice. Drawing upon the theory of expectancy-value model of achievement-related choices, personal motivational beliefs (eg, interest and value)

move someone toward their desired occupation.⁴⁴ Research on secondary school students in the Netherlands found that their interest in specific vocations or occupations determined their future-oriented career decisions.²⁶ Students who express interest in a music teaching career are more likely to choose a music teaching occupation compared to those who do not;¹⁹ for example, students who help others enjoy music and teach others to perform music are behaviors indicating a desire to make music teaching a future career. A study of STEM (Science, Technology, Engineering, and Mathematics) careers found that professional value could strongly predict the possibility of entering STEM careers.⁴⁴ More specifically, if individuals believe that STEM careers have more attainment value, including gaining higher status or making more money, they will engage in these occupations more. Individuals are not likely to pursue these occupations if they doubt the attainment value of these careers. The extant literature using expectancy-value theory found that attainment value was the best influential factor in predicting the tendency to engage in a music career.⁴⁵ Taken together, based on aforementioned evidence, we proposed that music interest and value may have a potential mediating role between school music context and music career choice (Hypothesis 2).

Present Study

Overall, the existing studies have indicated that school context is associated with individual career choice in small-scale samples. However, the relationship between school music context and career choice in the music field is still unclear in large-scale secondary school adolescents. Additionally, the underlying psychological mechanism between school music context and adolescents' music career choice has also been relatively unexplored through a comprehensive theoretical model. Based on the theoretical framework of the context–process–outcomes model,²⁰ we proposed an integrated model whereby school music context could predict music career choice via the mediating role of music interest and value (see Figure 1). Specifically, we proposed these sub-hypotheses:

H1a: Musical activities would positively predict music career choice

H1b: Musical classroom would positively predict music career choice

H1c: Musical broadcasting would positively predict music career choice

H1d: Musical teachers would positively predict music career choice

H2a: Musical activities would positively predict music interest and value

H2b: Musical classroom would positively predict music interest and value

H2c: Musical broadcasting would positively predict music interest and value

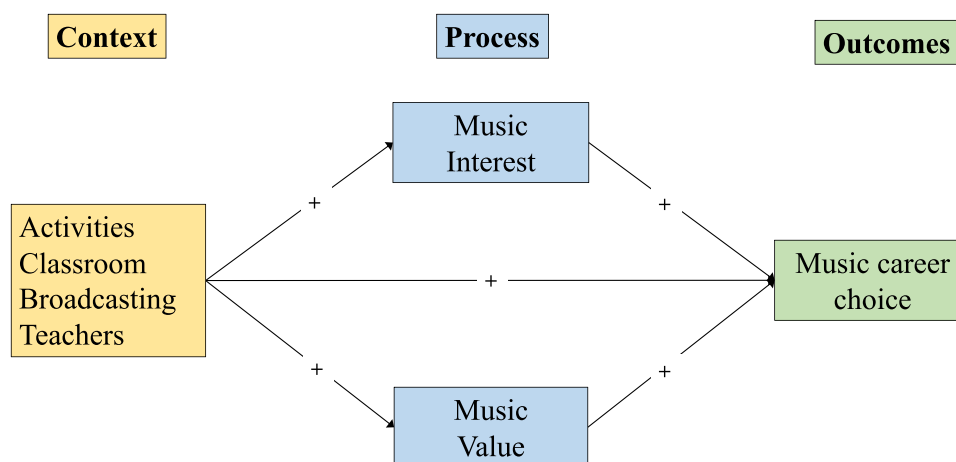


Figure 1 Hypothesis model of context–process–outcomes related to music career choice.

H2d: Musical teachers would positively predict music interest and value

H2e: Music interest would positively predict music career choice

H2f: Music value would positively predict music career choice

Taken together, here are three core hypotheses: (1) school music context would predict music career choice; (2) music interest would mediate the relationship between school music context and music career choice; (3) music value would mediate the relationship between school music context and music career choice.

Methods

Subjects

The samples were collected from a research project of National Survey on Career Choice (NSCC) among Chinese adolescents adopting the method of stratified cluster sampling. From 68 secondary schools in central China, 28,018 students were selected. The average age of these participants was 14.49 (SD=0.58), ranging from 12 to 16 years. Approximately equal numbers of boys ($N = 14,940$, 53.3%) and girls ($N = 13,076$, 46.7%) participated in the study.

Procedures

During September–October 2019, participants were invited to participate in the study, informed of the nature of voluntary participation, and told that they were free to withdraw from the study at any time. Written informed consent was obtained from both participants and their parents. The questionnaire packages were previously administered in a classroom setting. Participants first provided demographic information and then completed the questionnaire assessing school context, psychological process, and music career choice outcomes. Finally, all data were retrieved by trained professional testers in the field of educational psychology.

This study was approved by the Research Ethics Committee of the Shanxi Art Vocational College and by the principals of the participating schools. This research was conducted to comply with the Declaration of Helsinki.

Measures

The measures used in this study were selected to assess the three sets of constructs depicted in [Figure 1](#): perceptions of the school context (ie, musical activities, classroom, broadcasting, teachers), mediators of psychological motivational process (ie, music value and interest), and outcomes of music career choice. The questionnaires on school context (ie, musical activities, classroom, broadcasting, teachers) and psychological motivational process (ie, music value and music interest) were taken from the National Survey on Career Choice (NSCC), and the questionnaire of music career choice was adapted based on the Chinese Education Panel Survey (CEPS). All instruments were piloted before implementation and had been used in previous studies.

School Context

School context covered four independent variables: school musical activities (three items; Cronbach's $\alpha = 0.713$), school musical classroom (one item), school musical broadcasting (one item), and school musical teachers (one item). All the items scoring by yes (1 point) or no (0 point) were taken from the NSCC⁴⁶ and are presented in the [Appendix](#). Some items (eg, musical activities) were used in the previous study and have adaptable reliability and validity.⁴⁷ In order to consider the influence of personal characteristics, the other demographic factors such as students' age, gender, and socioeconomic status (SES) were incorporated as control variables.

Psychological Process

Music interest and music value scales were used to measure the psychological processes which were hypothesized to mediate the relationship between school context and music career choice outcomes. Both scales were taken from the NSCC^{48,49} and adapted based on the current study. All five items for music interest constructs were evaluated by five-point Likert scales, with

higher score indicating higher interest in music (Cronbach's $\alpha = 0.745$). The scale assessing students' perceived music value included seven items, which were assessed using binary scoring (no = 0, yes = 1). The total score of this scale was calculated to show the level of music value, with higher total score indicating higher music value (Cronbach's $\alpha = 0.781$). All items are presented in the [Appendix](#).

Outcomes: Music Career Choice

The choice of music career was measured by asking the participants about the possibility of their choosing a music career in the future (not select = 0; possibly select = 1; definitely select = 2). This scale was adapted based on the Chinese Education Panel Survey (CEPS) and has been used to assess students' career aspirations with reasonable validity.⁵⁰ The higher score indicated a higher possibility to choose music career. This item is presented in the [Appendix](#).

Data Analysis Strategies

We used the software of SPSS 25.0 and Mplus 7.4 to conduct the statistical analyses. First, we performed descriptive analyses to understand the profile and calculated Pearson correlations to examine the associations among several variables. Second, we measured the direct effect of *school context* (eg, school musical activities, classroom, broadcasting, and teachers) on *music career choice*. Furthermore, we selected *music interest* and *music value* as mediators in the above model, as well as added gender, age, and SES as control variables. According to the prior suggestion, the comparative fit index (CFI), Tucker–Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean residual (SRMR) served as the valuable standards.⁵¹ The cutoffs (ie, CFI and TLI ≥ 0.90 , RMSEA and SRMR ≤ 0.08) indicated a good model–data fit.⁵²

Results

Descriptive and Correlative Analysis

Descriptive statistics and Pearson correlations are depicted in [Table 1](#). The scores for music interest, music value of students, school musical activities, classroom, and broadcasting of schools were at relatively high levels, whereas the scores for music career choice and school musical teachers were at relatively low-to-moderate levels. The correlations between musical value ($r = 0.014$, $p < 0.05$), activities ($r = 0.056$, $p < 0.001$), classroom ($r = 0.015$, $p < 0.05$), teachers ($r = 0.076$, $p < 0.001$) and music career choice were all significantly positive; while broadcasting of schools was significantly and negatively correlated with music career choice ($r = -0.018$, $p < 0.01$).

Table 1 Means, Standard Deviations, and Correlations

| | Choice | Interest | Value | Activities | Classroom | Broadcasting | Teachers | Gender | Age | SES |
|--------------|-----------|----------|--------|------------|-----------|--------------|-----------|--------|--------|--------|
| Choice | 1 | | | | | | | | | |
| Interest | 0.001 | 1 | | | | | | | | |
| Value | 0.014* | 0.508*** | 1 | | | | | | | |
| Activities | 0.056*** | -0.002 | 0.011 | 1 | | | | | | |
| Classroom | 0.015* | -0.005 | 0.009 | 0.188*** | 1 | | | | | |
| Broadcasting | -0.018** | 0.002 | 0.006 | 0.232*** | 0.141*** | 1 | | | | |
| Teachers | 0.076*** | 0.003 | 0.005 | 0.216*** | 0.063*** | 0.067*** | 1 | | | |
| Gender | -0.005 | 0.000 | 0.000 | -0.003 | -0.010 | -0.004 | -0.009 | 1 | | |
| Age | -0.042*** | 0.001 | -0.004 | -0.042*** | -0.033*** | -0.007 | -0.033*** | 0.000 | 1 | |
| SES | 0.003 | 0.023*** | -0.001 | -0.005 | 0.005 | -0.002 | -0.007 | 0.000 | 0.008 | 1 |
| M | 0.304 | 5.330 | 0.891 | 1.840 | 0.890 | 0.700 | 0.520 | – | 14.490 | 4.139 |
| SD | 0.533 | 45.267 | 23.101 | 1.019 | 0.311 | 0.459 | 0.500 | – | 0.583 | 32.034 |

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Abbreviations: Choice, music career choice; Interest, music interest; Value, music value; Activities, school musical activities; Classroom, school musical classroom; Broadcasting, school musical broadcasting; Teachers, school music teachers; SES, socioeconomic status; M, means; SD, standard deviation.

Path Analysis and Mediating Analysis

Prior to analysis of the indirect effects model, the direct effects of *school context* included school musical activities, classrooms, broadcasting, and teachers on music career choice were examined. The results revealed that school musical activities (H1a, $\beta = 0.029$, $p < 0.001$), classrooms (H1b, $\beta = 0.026$, $p = 0.010$), and teachers (H1d, $\beta = 0.082$, $p < 0.001$) had a significantly positive effect on music career choice, whereas broadcasting had a significantly negative effect on music career choice (H1c, $\beta = -0.021$, $p = 0.003$).

As shown in Table 2 and Figure 2, the results of path analysis and mediating analysis revealed that school musical activities (H2a) were positively related to music interest ($\beta = 0.065$, $p < 0.001$) and music value ($\beta = 0.029$, $p < 0.001$); musical classroom (H2b) was positively related to music interest ($\beta = 0.183$, $p < 0.001$) and music value ($\beta = 0.028$, $p < 0.001$); musical broadcasting (H2c) was positively related to music interest ($\beta = 0.081$, $p < 0.001$) but not positively related to music value; teachers (H2d) were positively related to music interest ($\beta = 0.241$, $p < 0.001$) and music value ($\beta = 0.039$, $p < 0.001$). Meanwhile, music interest (H2e) and music value (H2f) were both positively associated with music career choice after controlling demographic variables, including SES, gender, and age. Finally, the model was considerably acceptable ($\chi^2/df = 7.498/3$, CFI = 0.999, TLI = 0.994, RMSEA = 0.007, SRMR = 0.002). For mediating effects, we tested them using the bootstrapping method (setting bootstrap = 1000). As the results show, school musical activities, classroom, and teachers indirectly predicted music career choice by music interest and music value as mediators (activities \rightarrow interest \rightarrow music career choice: [0.009, 0.014]; activities \rightarrow value \rightarrow music career choice: [0.019, 0.025]; classroom \rightarrow interest \rightarrow music career choice: [0.008, 0.012]; classroom \rightarrow value \rightarrow music career choice: [0.005, 0.008]; teachers \rightarrow interest \rightarrow music career choice: [0.018, 0.023]; teachers \rightarrow value \rightarrow music career choice: [0.013, 0.017]). School broadcasting, similarly, could predict music career choice via the mediator of music interest, but not via music value (school musical activities \rightarrow interest \rightarrow music career choice: [0.005, 0.008]; school musical activities \rightarrow value \rightarrow music career choice: [-0.001, 0.002]).

Discussion

The purpose of this study was to unravel the relationship between school music context and music career choice and to examine the mediator underlying this relationship. Results of a large-scale national survey found that school music context significantly predicted music career choice, and music motivational beliefs (ie, music value and music interest) served as a mediator during this indirect path. This was the first study to incorporate school music context, music interest and value, and music career choice into a comprehensive model based on the context–process–outcomes model. The findings in the present study contributed to the extant literature by (1) linking the direct connection between school music context and adolescents' music career choice, and (2) revealing the mediating mechanism of music interest/value between school music context and music career choice.

Table 2 Mediation Model Between Music Context and Music Career Choice Through Music Interest and Music Value

| Predictors | Music Interest | | | Music Value | | | Music Career Choice | | |
|----------------|----------------|-------|---------|-------------|-------|---------|---------------------|-------|---------|
| | β | SE | p | β | SE | p | β | SE | p |
| Gender | -0.016 | 0.010 | 0.122 | 0.004 | 0.002 | 0.059 | | | |
| Age | 0.008 | 0.009 | 0.379 | -0.008*** | 0.002 | < 0.001 | | | |
| SES | -0.012 | 0.006 | 0.051 | -0.008*** | 0.001 | < 0.001 | | | |
| Activities | 0.065*** | 0.005 | < 0.001 | 0.029*** | 0.001 | < 0.001 | 0.029*** | 0.003 | < 0.001 |
| Classroom | 0.183*** | 0.017 | < 0.001 | 0.028*** | 0.003 | < 0.001 | 0.026* | 0.010 | 0.010 |
| Broadcasting | 0.081*** | 0.012 | < 0.001 | 0.001 | 0.002 | 0.558 | -0.021** | 0.007 | 0.003 |
| Teachers | 0.241*** | 0.011 | < 0.001 | 0.039*** | 0.002 | < 0.001 | 0.082*** | 0.006 | < 0.001 |
| Music interest | | | | | | | 0.091*** | 0.004 | < 0.001 |
| Music value | | | | | | | 0.397*** | 0.020 | < 0.001 |
| R ² | 0.041 | 0.002 | < 0.001 | 0.067 | 0.003 | < 0.001 | 0.052 | 0.003 | < 0.001 |

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Abbreviation: SE, standard error.

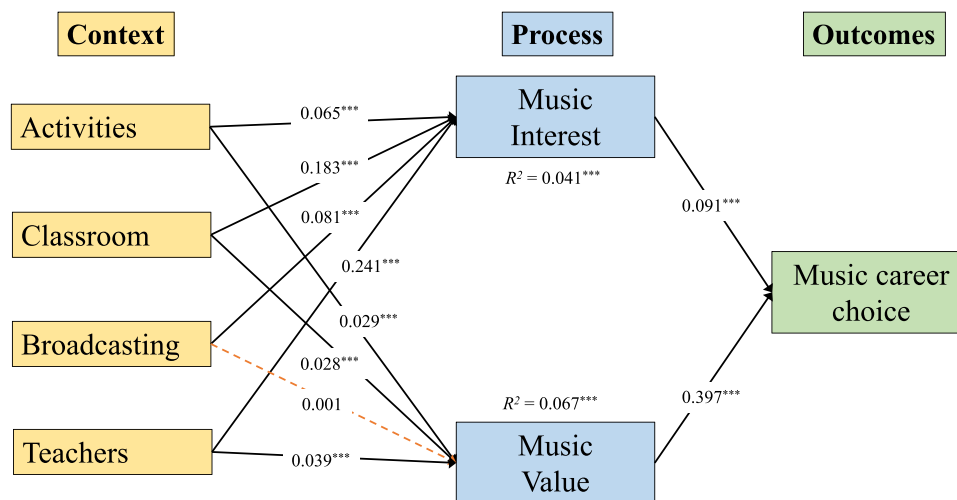


Figure 2 Model of the mediating roles of music interest and music value in the relationship between school context and music career choice.

Notes: The direct path and the relationships between control variables (ie, gender, age, SES) are not depicted due to lack of conciseness. The orange dashed line indicates that the predictive effect is not significant. *** $p < 0.001$.

School Music Context Significantly Predicted Music Career Choice

In examining H1a/H1b/H1d, the results firstly displayed that musical activities, musical classrooms, and musical teachers in school music context positively predicted music career choice. In other words, adolescents who learn in a music-rich environment, including musical activities, musical classroom, and musical teachers, were more likely to choose music career as their occupational goals compared to those who struggle in a music-poor school context. These findings are consistent with previous literature.^{13,33–35} Secondly, music teachers had the strongest predictive effect on students' music career choice, followed by musical classroom and school musical activities. Since it is the teachers who teach music, their enthusiasm and professionalism in music teaching greatly affect students' attitudes and behaviors. Especially, teachers' positive instructional behavior has positive influence on students' future career choice.⁵ In addition, with regard to H1c, music broadcasting had inverse association with music career choice compared to other school music context. That is, the music broadcasting in school music context did not positively predict students' choice related to music career such as music teachers, musicians, and singers. It may be caused by the declining popularity and implications of broadcasting in Chinese secondary schools with the development of internet technology.⁵³

These findings were consistent with past studies with respect to the theme of musical activities and teachers.^{13,33} This is because musical activities play the connective role in teacher–student interactions regarding music tasks. By participating in community music group competitions or music camps, students could enhance their specific understanding of music practice, which in turn will have a subtle and positive influence on career choices.³³ This result also verified the person–environment fit theory³² and the school context model³⁰ in which classroom features and teacher communities were identified as crucial indicators influencing students' development.²⁹ For students with a good classroom environment, musical classroom is equipped with sufficient equipment for satisfying students' musical demands, such as being fully equipped to enable students to experience a higher enjoyment of music and music presentation, thus improving students' musical motivation of career choice. More importantly, our study expanded the prior sporadic study into the integrated framework which contains not only interpersonal factors but also impersonal factors. To be specific, our study incorporated musical activities, classrooms, broadcasting, and teachers into a school music context model. This study further verified the impact of integrated school music context on adolescents' music career choice, which provided theoretical implications and practical enlightenment.

Mediating Role of Music Interest and Music Value

With regard to the hypotheses of H2a–H2f, this study verified that musical activities, classroom, and teachers would positively predict music interest and value, which in turn predicted music career choice, whereas musical broadcasting could only predict

music interest but not music value, which is consistent with watching science programs using broadcast media not being significantly associated with users' science interest or values.³⁵ It means that the indicators of music interest and value play the mediating role between school music context (ie, musical activities, musical classrooms, and music teachers) and music career choice, but not broadcasting. In terms of the first mediation link (musical activities → motivation → music career choice), students who are actively engaged in musical activity seem to enjoy a number of benefits that reinforce their continued involvement.⁵⁴ Because attending concerts and other musical activities is an important aspect of stimulating students' emotional life, these activities further stimulate students' interest in the pursuit of music and experience the sense of value of musical activities, thus providing a priori basis for their future choice of music career. In terms of the second mediation link (musical classroom → motivation → music career choice), students who practice in a positively structured physical environment (ie, musical classroom) showed stronger musical interest. Since students have a specialized place to practice music, they can better carry out productive practical behaviors (such as participating in music-related presentation in classroom). These practicing behaviors in the classroom will help students gain an inner sense of accomplishment, which in turn stimulates their interest and then expresses their desire to pursue a music-related career. Similarly, students who practice in a positively structured physical environment (ie, music classroom) showed stronger musical value. Musical classrooms with adequate equipment can meet the needs of students' music training and development. Related studies indicated that if students experience an external environment meeting their psychological needs, they are more likely to value music in school.^{55,56} Self-determination theory also suggests that as these music-valuing students mature, they internalize external sources of motivation in their lives and keep practicing to become music professionals.^{57,58} These results are supported by the context–process–outcomes model²⁰ and previous sporadic studies that are either context → process^{39,40,43} or process → outcomes.^{26,45} These results shed light on the mediating psychological mechanism of music interest and value between school music context and music career choice, and expand the context–process–behavior model to the music education field. It suggests that school educational practices should concern the internal psychological process between the school environment and future career orientation.

Limitations and Future Directions

There are a number of limitations to this study. First, this study mixes various career choices including music teacher, musician and singer, which could fail to identify internal differences among these career choices. In addition, although this research divides the music profession into two categories according to the framework of predecessors,^{24,25} the possible categories of music profession in real life are not limited to this. For example, there are some emerging music careers including internet celebrity on the micro-vlogging network TikTok.⁵⁹ Future research can further consider the applicability of other music careers in the context–process–outcomes model. Second, students' peer groups as an important factor possibly also have influence on their music career choice. However, limited by the current study design, this important factor could be tested in future studies. Third, the between-group variations among different regions or schools was not analyzed because of the confidentiality principle in our research project. Future studies are warranted to consider between-school variations, which is also significant in the school music context. Finally, the data used in the present study are cross-sectional and unable to reveal causal relationships, thus more longitudinal or experimental research designs are warranted in the future.

Theoretical and Practical Implications

Despite the above limitations, this study remains significant. For the theoretical implications, our study expands the context–process–outcomes model in the field of music career choice. Specifically, we first build the direct path between school music context and music career choice based on the person–environment fit model. We then bridge the indirect relation between school music context and music career choice via intrinsic and extrinsic motivation, that is, based on music interest and music value. Taken together, the above theoretical work filled a research gap which existed in the field of music career choice.

For the practical implications, our study may represent a more promising route to adolescents' music career choice. The school managers should pay more attention to the school music facilities and climate, such as providing more musical activities, setting up special musical classrooms, supporting the professional development of music teachers and

so on. The teachers should be concerned with the psychological processes involved in teenagers' career motivation, such as occupational interests and values. For example, teachers can add to the versatility of instruction, consider individual psychological needs, and foster student–student interaction. By doing so, the school context may provide effective support for adolescents' psychological processes and future career choices.

Conclusion

This study investigated the underlying psychological mechanism between school music context and adolescents' music career choice in large-scale secondary school adolescents, through a comprehensive theoretical model. The research first found that school music context could predict music career choice via the mediating role of music interest and value. Specifically, in addition to broadcasting negatively predicted music career choice, other school music context variables (school musical activities, classroom, and teachers) had significantly positive effects on music career choice. Second, path analysis revealed that musical classroom and school musical activities were positively related to music interest and music value, and music teachers had the strongest predictive effect on students' music interest and music value. Followed by musical classroom and school musical activities, mediating analysis found that school musical activities, classroom, and teachers indirectly predicted music career choice through music interest and music value as mediators. School broadcasting could predict music career choice via the mediator of music interest, but not via music value.

Abbreviations

Choice, music career choice; Interest, music interest; Value, music value; Activities, school musical activities; Classroom, school musical classroom; Broadcasting, school musical broadcasting; Teachers, school music teachers.

Acknowledgments

We thank for teachers and students in the participating school.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Wang Z, Wong K. Factors influencing the career intentions of music performance students: an integrated model analysis. *Int J Music Educ.* 2022;02557614221077445. doi:10.1177/02557614221077445
2. López-Íñiguez G, Bennett D. A lifespan perspective on multi-professional musicians: does music education prepare classical musicians for their careers? *Music Educ Res.* 2020;22(1):1–14. doi:10.1080/14613808.2019.1703925
3. López-Íñiguez G, Burland K, Bennett D. Understanding the musical identity and career thinking of postgraduate classical music performance students. *Music Sci.* 2022;102986492210898. doi:10.1177/10298649221089869
4. Beeching AM. *Beyond Talent: Creating a Successful Career in Music.* 2nd ed ed. Oxford University Press; 2010.
5. Bennett D, Chong EKM. Singaporean pre-service music teachers' identities, motivations and career intentions. *Int J Music Educ.* 2018;36(1):108–123. doi:10.1177/0255761417703780
6. Qin M, Tao D. Understanding preservice music teachers' intention to remain in the profession: an integrated model of the theory of planned behaviour and motivation theory. *Int J Music Educ.* 2021;39(4):355–370. doi:10.1177/0255761420963149
7. Fischer-Croneis SH. Career intentions and experiences of pre- and in-service female band teachers. *J Res Music Educ.* 2016;64(2):179–201. doi:10.1177/0022429416650167
8. Diegelman NM, Subich LM. Academic and vocational interests as a function of outcome expectancies in social cognitive career theory. *J Vocat Behav.* 2001;59(3):394–405. doi:10.1006/jvbe.2001.1802
9. Bonneville-Roussy A, Evans P, Verner-Filion J, Vallerand RJ, Bouffard T. Motivation and coping with the stress of assessment: gender differences in outcomes for university students. *Contemp Educ Psychol.* 2017;48:28–42. doi:10.1016/j.cedpsych.2016.08.003
10. Miksa P, Evans P, McPherson GE. Motivation to pursue a career in music: the role of social constraints in university music programs. *Psychol Music.* 2021;49(1):50–68. doi:10.1177/0305735619836269
11. Parker SL, Jimmieson NL, Amiot CE. Persisting with a music career despite the insecurity: when social and motivational resources really matter. *Psychol Music.* 2021;49(1):138–156. doi:10.1177/0305735619844589
12. Kaufmann L, Rawlings D. The role of personality and musical experiences in shaping music students' intentions to become performers. *Proc 8th Int Conf Music Percept & Cogn ICMPC8.* Published online 2004; Evanston, IL. Available from: <https://findanexpert.unimelb.edu.au/scholarlywork/265901-The-role-of-personality-and-musical-experiences-in-shaping-music-students'-intentions-to-become-performers>. Accessed July 28, 2022.
13. Robison T, Edgar SN, Eros J, et al. Inspiring the next generation of music educators: a multiple case study of high school music experiences and career choice. *J Res Music Educ.* 2021;69(2):207–227. doi:10.1177/0022429420975787

14. Lanero A, Vazquez J-L, Aza CL. Social cognitive determinants of entrepreneurial career choice in university students. *International Small Business Journal: Researching Entrepreneurship*. 2016;34(8):1053–1075. doi:10.1177/0266242615612882
15. Ramsay JE, Pang JS, Ho MHR, Chan KY. Need for power predicts career intent in university students. *J Career Assess*. 2017;25(3):389–404. doi:10.1177/1069072716639690
16. Lu Y, Shi X, Zhong S. Competitive experience and gender difference in risk preference, trust preference and academic performance: evidence from Gaokao in China. *J Comp Econ*. 2018;46(4):1388–1410. doi:10.1016/j.jce.2018.05.002
17. Wang J, Li Q, Luo Y. Physics identity of Chinese students before and after Gaokao: the effect of high-stake testing. *Res Sci Educ*. 2022;52:675–689. doi:10.1007/s11165-020-09978-y
18. Zhang X. *An Investigation on the Guarantee of Teaching Hours and the Quality of “Non-Major Classes” (Non-Open Entrance Examination Subjects) in Junior High School-Based on a Research of Seven Schools at PT District in Shanghai* [Master’s degree thesis]. East China Normal University; 2019. Available from: https://t.cnki.net/kcms/detail?v=3uoqlhG8C475K0m_zrgu4lQARvvp2SAkWGEmc0QetxDh64Dt3veMpz2pZre5n-55F7E4Gbjl0MyWZduXiID4qSA39Q8ltZ&uniplatform=NZKPT. Accessed November 22, 2022
19. Rickels DA, Hoffman EC, Fredrickson WE. A comparative analysis of influences on choosing a music teaching occupation. *J Res Music Educ*. 2019;67(3):286–303. doi:10.1177/0022429419849937
20. Roeser RW, Midgley C, Urdan TC. Perceptions of the school psychological environment and early adolescents’ psychological and behavioral functioning in school: the mediating role of goals and belonging. *J Educ Psychol*. 1996;88(3):408–422. doi:10.1037/0022-0663.88.3.408
21. Forbes M, Bartlett I. “This circle of joy”: meaningful musicians’ work and the benefits of facilitating singing groups. *Music Educ Res*. 2020;22(5):555–568. doi:10.1080/14613808.2020.1841131
22. Fung ASK. Music enables the holistic development and discovery of self: a phenomenological study of two Christian musicians. *Psychol Music*. 2017;45(3):400–416. doi:10.1177/0305735616665911
23. Hughes J. What is British nuclear culture? Understanding Uranium 235. *Br J Hist Sci*. 2012;45(166):495–518. doi:10.1017/S0007087412001021
24. Vuust P, Gebauer L, Hansen N, Jørgensen SR, Møller A, Linnet J. Personality influences career choice: sensation seeking in professional musicians. *Music Educ Res*. 2010;12(2):219–230. doi:10.1080/14613801003746584
25. Eros J. Becoming part of the city: influences on the career choice of an urban music educator. *Int J Music Educ*. 2018;36(3):407–417. doi:10.1177/0255761418771798
26. Slot EM, Bronkhorst LH, Akkerman SF, Wubbels T. Vocational interest profiles in secondary school: accounting for multiplicity and exploring associations with future-oriented choices. *J Educ Psychol*. 2021;113(5):1059–1071. doi:10.1037/edu0000475
27. Ng C. “I learn for a job promotion!”: the role of outcome-focused career goals in motivating distance learners to learn. *Distance Educ*. 2018;39(3):390–410. doi:10.1080/01587919.2018.1476839
28. Jung Y, Takeuchi N. Gender differences in career planning and success. *J Manag Psychol*. 2016;31(2):603–623. doi:10.1108/JMP-09-2014-0281
29. Bascia N. *The School Context Model: How School Environments Shape Students’ Opportunities to Learn*. People for Education; 2014:21.
30. Talbert JE, McLaughlin MW. In: Friedman, SL, Wachs, TD, Eds. Assessing the school environment: embedded contexts and bottom-up research strategies. In: *Measuring Environment Across the Life Span: Emerging Methods and Concepts*. American Psychological Association; 1999:197–227. doi:10.1037/10317-007
31. Lee KCC, Leung BW. Instrumental teaching as “the noblest and the most under-praised job”: multiple case studies of three Hong Kong instrumental teachers. *Music Educ Res*. 2022;24(1):42–55. doi:10.1080/14613808.2021.2015309
32. Hunt DE. Person-environment interaction: a challenge found wanting before it was tried. *Rev Educ Res*. 1975;45(2):209–230. doi:10.3102/00346543045002209
33. Henry ML. The musical experiences, career aspirations, and attitudes toward the music education profession of all-state musicians. *J Music Teach Educ*. 2015;24(2):40–53. doi:10.1177/1057083713506998
34. Papageorgi I, Economidou Stavrou N. Student perceptions of the classroom environment, student characteristics, and motivation for music lessons at secondary school. *Music Sci*. 2021;10298649211055832. doi:10.1177/10298649211055832
35. Falk JH, Pattison S, Meier D, Bibas D, Livingston K. The contribution of science-rich resources to public science interest. *J Res Sci Teach*. 2018;55(3):422–445. doi:10.1002/tea.21425
36. Eccles JS, Lord S, Midgley C. What are we doing to early adolescents? The impact of educational contexts on early adolescents. *Am J Educ*. 2015. doi:10.1086/443996
37. Ryan RM, Deci EL. Intrinsic and extrinsic motivations: classic definitions and new directions. *Contemp Educ Psychol*. 2000;25(1):54–67. doi:10.1006/ceps.1999.1020
38. Zhoc KCH, King RB, Law W, McNerney DM. Intrinsic and extrinsic future goals: their differential effects on students’ self-control and distal learning outcomes. *Psychol Sch*. 2019;56(10):1596–1613. doi:10.1002/pits.22287
39. Simpkins SD, Vest AE, Becnel JN. Participating in sport and music activities in adolescence: the role of activity participation and motivational beliefs during elementary school. *J Youth Adolesc*. 2010;39(11):1368–1386. doi:10.1007/s10964-009-9448-2
40. Cai H, Liu G. Exploring the learning psychology mobilization of music majors through innovative teaching methods under the background of new curriculum reform. *Front Psychol*. 2022;12:751234. doi:10.3389/fpsyg.2021.751234
41. Septiono W, Kuipers MAG, Ng N, Kunst AE. Self-reported exposure of Indonesian adolescents to online and offline tobacco advertising, promotion and sponsorship (TAPS). *Tob Control*. 2022;31(1):98–105. doi:10.1136/tobaccocontrol-2020-056080
42. Morton JL. “I feel good!” A weekly wellness radio broadcast for elementary school children. *J Sch Nurs*. 2008;24(2):83–87. doi:10.1177/10598405080240020601
43. Bolden B. Teaching composing in secondary school: a case study analysis. *Br J Music Educ*. 2009;26(2):137–152. doi:10.1017/S0265051709008407
44. Eccles JS, Wang MT. What motivates females and males to pursue careers in mathematics and science? *Int J Behav Dev*. 2016;40(2):100–106. doi:10.1177/0165025415616201
45. Parkes KA, Jones BD. Motivational constructs influencing undergraduate students’ choices to become classroom music teachers or music performers. *J Res Music Educ*. 2012;60(1):101–123. doi:10.1177/0022429411435512
46. Yin XK, Li YF, Wu B. Exploration and reflection on the development of quality monitoring tools for basic music education in China. *Arts Educ*. 2016;(12):231–232+257.

47. Liu S, Jin Y, Li H, et al. Associations of musical activities and positive affect with fear of childbirth: a structural equation modeling approach. *Front Public Health*. 2022;10:906996. doi:10.3389/fpubh.2022.906996
48. Wang YN. *An investigation on students' interest in music learning in music appreciation class in junior middle school of Zhengzhou No. 2 middle school* [Master's thesis]. Henan Normal University; 2018. Available from: <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CMFD&dbname=CMFD201901&filename=1018241280.nh&v=MzlxNjRGckc4SDIQRXI1RWJQSVI4ZVgxTHV4WVM3RGgxVDNxVHJXTTFGckNVUjdpZlIUM9GaXZtVmJ2QlZGMjY=>. Accessed July 27, 2022.
49. Long S. *Research on the relationship between primary school students' music learning motivation and music academic emotion* [Master's thesis]. Hunan Normal University; 2014. Available from: <https://kns.cnki.net/kcms/detail/detail.aspx?dbcode=CMFD&dbname=CMFD201501&filename=1015515360.nh&v=MDAwNDFyQ1VSN2lmWU9Sb0Zpdm5VNy9PVkYyNkc3YTVHOXUxLjVfYlBjUjhlWDFMdXhZUzdEaDFUM3FUcldNMUY=>. Accessed July 27, 2022
50. Liu R. Gender-math stereotype, biased self-assessment, and aspiration in STEM careers: the gender gap among early adolescents in China. *Comp Educ Rev*. 2018;62(4):522–541. doi:10.1086/699565
51. Hu L, Bentler PM. Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Struct Equ Model Multidiscip J*. 1999;6(1):1–55. doi:10.1080/10705519909540118
52. Kline RB. *Principles and Practice of Structural Equation Modeling*. 4th ed ed. The Guilford Press; 2015.
53. Price ME, Haas S, Margolin D. New technologies and international broadcasting: reflections on adaptations and transformations. *Ann Am Acad Pol Soc Sci*. 2008;616(1):150–172. doi:10.1177/0002716207312033
54. Woody RH. Music education students' intrinsic and extrinsic motivation: a quantitative analysis of personal narratives. *Psychol Music*. 2021;49(5):1321–1343. doi:10.1177/0305735620944224
55. Campbell PS, Connell C, Beegle A. Adolescents' expressed meanings of music in and out of school. *J Res Music Educ*. 2007;55(3):220–236. doi:10.1177/002242940705500304
56. Freer E, Evans P. Psychological needs satisfaction and value in students' intentions to study music in high school. *Psychol Music*. 2018;46(6):881–895. doi:10.1177/0305735617731613
57. Evans P. Self-determination theory: an approach to motivation in music education. *Music Sci*. 2015;19(1):65–83. doi:10.1177/1029864914568044
58. Evans P, McPherson GE. Identity and practice: the motivational benefits of a long-term musical identity. *Psychol Music*. 2015;43(3):407–422. doi:10.1177/0305735613514471
59. Rauchberg JS. A different girl, but she's nothing new: Olivia Rodrigo and posting imitation pop on TikTok. *Fem Media Stud*. 2022;1–5. doi:10.1080/14680777.2022.2093251

Psychology Research and Behavior Management

Dovepress

Publish your work in this journal

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/psychology-research-and-behavior-management-journal>