

Socio-economic Environment-Music Curriculum Development and Institutional Policy Clicking on Students' Minds and Behaviors Through Music Education and Information System Reforms—A Study from the University Students

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ABSTRACT

Information system reforms encompass a deliberate and methodical approach to improving the efficiency, effectiveness, and dependability of information systems within an organization or governmental body. The aforementioned reforms are being implemented in order to enhance data management, streamline information flow, optimize decision-making processes, and ultimately enhance the overall performance of the organization. Regarding music education, curriculum development, and institutional policy converge in a symbiotic relationship, the goal of these reforms is to improve data management, information flow, decision-making processes, and overall organizational effectiveness. Adoption of new technologies, improving current infrastructure, redefining workflows, and creating standardized procedures for data gathering, storage, and analysis are all common components of information system reform. A qualitative research methodology was used, with in-depth interviews serving as the major data collection method. The study enlisted the help of fifteen university students who had prior expertise in playing musical instruments. The interview process was created to investigate their experiences, perceptions, and attitudes toward the musical instruments and their impact on their musical journey. When students played the musical instruments, they expressed increased interest and attention to music education. They developed cross-cultural understanding and demonstrated a deeper respect for Chinese music traditions. The musical instruments also helped pupils develop their musical talents, creativity, and expressiveness. The findings emphasized the musical instrument's advantages in increasing student involvement, developing cultural appreciation, and supporting holistic development. The findings of the study have implications for curriculum development, instructional practices, and institutional policies, giving educators insights into creating inclusive and enriching music education environments. Music education may motivate students, nurture their musical ability, and cultivate a greater understanding of other musical traditions by embracing musical instruments and their cultural history.

Keywords: Information System Reforms, Music Education, Curriculum Development, Institutional Policy, Music Education Environments.

INTRODUCTION

Music education is widely acknowledged for having a substantial impact on student development by encouraging creativity, emotional well-being, and cognitive capacities. Incorporating a variety of musical instruments into the curriculum broadens students' musical experiences and improves cultural awareness (Navarro Ramón & Chacón-

López, 2021). Among these instruments, the classic Chinese stringed instruments are culturally and artistically significant. Its use in music education programs has the ability to present students with a one-of-a-kind and immersive musical experience (Quintana, Díaz-Puente, & Gallego-Moreno, 2022).

The convergence of swift technological progress, the

process of globalization, and the changing geopolitical landscape have engendered a multitude of prospects and obstacles for individuals, enterprises, and nations alike (Zakharov & Kapuza, 2017). The issue of income inequality persists as a significant concern, as observed disparities between individuals of high and low socioeconomic status continue to expand in numerous geographical areas. The continuous digital revolution has brought about significant changes in various industries and the labor market, resulting in a heightened need for competencies in STEM (Science, Technology, Engineering, and Mathematics) disciplines. Nevertheless, this phenomenon also gives rise to inquiries regarding the forthcoming trajectory of employment and the imperative for enhancing one's skills and acquiring new ones in order to accommodate evolving job demands (Wey, Sarma, Lechner, & Nath, 2022). The process of global economic integration has played a pivotal role in promoting cross-border trade and investment. In light of these challenges, there is a growing emphasis by governments and organizations on the promotion of sustainable development, social inclusion, and responsible business practices. Efforts focused on promoting innovation, entrepreneurship, and equal opportunities in education and healthcare are increasingly gaining traction as a means to tackle socioeconomic inequalities and enhance overall societal welfare (Zhang & Wu, 2022).

The development of music curricula and institutional policies holds significant importance in molding the educational environment for students (Ayçiçek, 2021). The inclusion of music education in the process of curriculum development acknowledges the artistic value of music, which has the ability to captivate and motivate students, thereby unlocking their imaginative capabilities (Ruokonen & Ruismäki, 2016). The inclusion of music in the educational curriculum exposes students to a wide range of musical genres, cultural expressions, and historical contexts, thereby enhancing their appreciation and comprehension of music (Shih, 2020). In addition, the provision of music education can exert a significant influence on the cognitive, emotional, and social growth of students, augmenting their capacity for analytical reasoning, artistic self-expression, and cooperative aptitudes (Yu & Leung, 2019). To guarantee the efficacy of music curriculum development, it is imperative that institutional policies furnish sufficient resources, facilitate the professional growth of music instructors, and accord priority to ensuring equitable access to music education for all pupils. Institutions can foster inclusive environments that cultivate students' artistic talents and enhance their overall educational experience by acknowledging the transformative potential of music (Yu & Leung, 2019).

With its rich historical and cultural legacy, musical instruments have distinct traits that add to their aesthetic worth. Its distinct sound, expressive possibilities, and sophisticated procedures make it an intriguing instrument for students to investigate. Students not only improve their

musical skills but also obtain a better grasp of Chinese culture and music traditions by playing musical instruments (Pang, 2022). Furthermore, the musical instruments promote international interchange in music education, creating an awareness of diversity and global viewpoints.

The inclusion of musical instruments in music education is extremely important for various reasons. For starters, it allows students to interact with a culturally meaningful instrument while also deepening their awareness of Chinese music traditions. The presence of musical instruments encourages cultural variety and international exchange, allowing students to recognize and embrace other musical heritages (Pan, 2021). Second, the musical instrument's distinct tone and techniques introduce students to a new aural palette to experiment with, broadening their musical horizons and creativity. Students can build a broader repertoire of musical skills and have a better grasp of diverse musical styles by introducing musical instruments into music education. Finally, incorporating musical instruments into music schooling curricula can improve students' basic studying reviews by means of providing a multidimensional approach to music training that includes technical proficiency, cultural knowledge, and artistic expression (Tsang, 2020).

Prior studies have shown that learning a musical instrument can enhance cognitive skills like memory retention, attentional awareness, and problem-solving aptitude. Empirical studies have indicated that the acquisition and execution of musical skills can beautify the synaptic connections within the mind, thereby augmenting cognitive capabilities throughout numerous vocations (Elmosnino, 2021). Moreover, empirical evidence has demonstrated that music education enhances the emotional welfare of students. Engaging in musical activities, such as playing a traditional Chinese stringed instrument like the Pipa, can facilitate emotional expression in children while simultaneously fostering the development of self-assurance and self-efficacy (Wang et al., 2021). Engaging in musical ensembles and cooperative endeavors can facilitate the cultivation of a feeling of affiliation and communal unity among children. Another important aspect fostered by music instruction is creativity. Musical instrument playing requires improvisation and interpretation, which encourages students to think creatively and express their artistic potential (Wang et al., 2022).

The purpose of this research is to examine the impact of musical instruments on students' minds and behaviors in the setting of music instruction. This study attempts to reveal the transforming power of music education and its influence on student involvement, attitudes, and general development by diving into the experiences and perceptions of university students. The study also investigates the consequences of these findings for music curriculum development and institutional policies (**Table 1**).

Table 1. Research Questions and Objectives

Research Questions	Objectives
RQ1: In the context of socio-economic changes and information system reform, how does the inclusion of musical instruments in music education impact student engagement and motivation?	Examine the influence of musical instruments on student engagement and motivation within the evolving educational landscape.
RQ2: Considering the socio-economic environment and information system reform, what are the effects of music education on student attitudes towards cultural diversity?	Investigate how music education influences student attitudes towards cultural diversity, fostering social cohesion and tolerance.
RQ3: In the midst of socio-economic challenges and information system reform, how does music education contribute to skill development and musical expression?	Explore the contribution of music education to skill development and musical expression in preparing students for the workforce.
RQ4: With an awareness of the socio-economic context and information system reform, how does learning music impact the personal and social development of students?	To assess the broader impact of learning music on students' personal growth, self-confidence, and social skills, contributing to their overall well-being and adaptability in an ever-changing socio-economic landscape.
RQ5: Amidst socio-economic transformations and information system reform, what are the perceptions of students regarding the inclusion of musical instruments in the music curriculum?	To examine students' perspectives on the integration of musical instruments within educational reforms, providing valuable feedback for educators and policymakers to align music education practices with the needs and aspirations of the future workforce.

By exploring the impact of music on students' thoughts and behaviors this study adds knowledge to the body of existing information. This study provides insightful information on the transformative potential of musical instruments in music education settings by probing the experiences and perceptions of university students. By highlighting the unique contributions of musical instruments, this study helps us appreciate the wider advantages of music education. This study provides evidence of how the presence of a culturally meaningful instrument can enhance students' musical experiences and foster their cognitive, emotional, and social development by examining the impact of music education on student involvement, attitudes, and overall development.

LITERATURE REVIEW

Definition and Characteristics of Music as an Art Form

The vast variety of chord progressions, tones, melodies, rhythms, and harmonic structures is widely admired and praised in music as a form of art. It is a form of expressive creativity that appeals to the intellect and feelings of individuals and has profound impacts (Rabinowitch, 2023). In addition to being enjoyable, music is a powerful medium with the help of information system reforms for communicating celebrating diversity, and ideas, and effecting interior transformation. The most basic definition of music is the systematic organization of sound and silence in accordance with the laws of harmony, rhythm, melody, and timbre. It involves information system reforms, thoughtful selection, and arrangement of musical elements to form a unified and attractive whole (Millet, Buehler, Du, & Kokkoris, 2023).

Composers, performers, and improvisers use these aspects to convey ideas, emotions, and storylines. Through

the interaction of harmony, melody, dynamics, and rhythm, music is capable of conveying a broad range of emotions, from happiness and excitement to melancholy and reflection. Based on individual experiences, cultural background, and personal tastes, each person's emotional response to music is unique (Olausson, 2022). Music has a temporal dimension as well, evolving across time with the help of information system reforms. It is organized in a variety of genres, including symphonies, sonatas, songs, and dances, which serve as frameworks for the arrangement and development of musical ideas. These information system forms provide direction, tension, release, and overall coherence to music. Composers and performers can use time, tempo, and phrasing to create dramatic arcs, develop suspense, and affect the listener's experience which improves through information system reforms (Kwihangana, 2020). Another important aspect of music is its cultural and contextual nature. Music represents diverse societies' and communities' values, beliefs, customs, and identities. It transmits historical tales, social commentary, and collective memory as a vehicle for artistic expression. Different civilizations have different musical traditions, instruments, scales, and rhythms, information system reforms, resulting in a broad range of musical styles and genres around the world (Florida & Adler, 2020).

Role of Music Education in Student Development

Music education is critical and varied in the whole development of students. Through music education, students take part in a variety of activities that advance their emotional, academic, cognitive, and socio-economic development (Tabuena, 2021). Music education has been related to a variety of cognitive benefits. Learning to read music notation, playing an instrument, and practicing music theory all involve concentrated attention, analytical thinking, and mental agility. These cognitive skills gained through

music instruction can be transferred to other academic fields such as math and language arts (Davies, 2020). Music improves memory and pattern recognition by teaching pupils to memorize musical pieces and recognize recurrent motifs. Furthermore, music instruction promotes overall cognitive growth and socioeconomic development by stimulating neuronal connections in the brain. Music is a strong emotional medium for self-expression and emotional inquiry. Students who participate in ensembles, choirs, bands, or orchestras must collaborate, listen to others, and coordinate their efforts. This collaborative part of music instruction encourages peer dialogue, cooperation, and mutual respect. Students learn to value others' contributions and acquire a sense of group responsibility for producing harmonious musical performances (Escamilla-Fajardo, Alguacil, & López-Carril, 2021). Music education fosters a sense of social cohesion, belonging, and community development as student socioeconomic development also increases by collaborating to create music and share the joy of artistic expression. Students are exposed to a wide variety of musical styles, genres, cultural manifestations, and socioeconomic development from around the globe through music education (Canavan & McCamley, 2020).

The study of music helps students develop their creativity and inspires them to realize their full artistic potential. Music composition, Improvisation, and playing an instrument all foster imagination, creativity, socioeconomic development, and critical thought. Students learn to think outside the box, try out many styles of music, and find their own musical voices (Palmiero, Guariglia, Crivello, & Piccardi, 2020). Music education provides a safe area for children to freely and truthfully express themselves. Music instruction requires discipline and goal planning. Regular practice, goal setting, and working for musical milestones necessitate dedication, time management, socio-economic development, and self-motivation. Students gain discipline, resilience, and a strong work ethic through the process of learning and mastering an instrument or participating in performances (Vereshchahina-Biliavska, Mazur, Burska, Iskra, & Teplova, 2022). These abilities can be applied in other aspects of life, such as academics and prospective career prospects. Academically, music education has been found to improve general academic achievement. Music education boosts pattern perception, numeracy, literacy, and spatial reasoning. Music education also encourages creative problem-solving and cognitive flexibility, socioeconomic development which are valuable in a range of academic subjects. Furthermore, studies have demonstrated a strong relationship between music education and standardized test outcomes, proving the academic benefits of music education (Azaryahu, Broza, Cohen, Hershkovitz, & Adi-Japha, 2023).

Cultural Significance of Musical Instruments

An ancient Chinese musical instrument is extremely important in Chinese civilization. The musical instruments are intricately connected with traditional Chinese music and serve as a symbol of cultural legacy, having a history extending over two millennia. It has played an important part in different musical genres, including classical, folk, and

regional music, as one of the most renowned and characteristic Chinese stringed instruments (Wang et al., 2021). The musical instruments have historical significance because it was developed in Central Asia during the Han Dynasty. An integral part of China's aesthetic development, the instrument has long been linked to notable musicians, thinkers, and poets. The musical instrument, which resembles a phoenix, is a symbol of rebirth, grace, and artistic talent. This picture is found in traditional Chinese art, calligraphy, and poetry, and it evokes elegance and refinement (Cheng et al., 2022). The musical instruments have a unique place in the world of cultural expression. It frequently accompanies traditional Chinese opera, offering its musical voice to portray the characters' feelings and tales. The musical instrument's diverse sound may elicit a wide range of emotions, from pleasure and love to despair and longing, resulting in a deeply evocative experience that enhances storytelling. Its inclusion in these cultural performances aids in the preservation and promotion of Chinese cultural history, allowing the instrument to serve as a conduit for conveying Chinese identity and values (Wang et al., 2022).

Furthermore, the musical instruments vary regionally within China, reflecting the country's cultural landscape. Different areas have evolved their own playing skills, repertoire, and performance styles, deepening the instrument's cultural significance. From the Northern School's delicate and elegant style to the Southern School's forceful and expressive style, each regional difference adds to the larger tapestry of Chinese musical traditions (Liu, 2020). The musical instruments, widely recognized as a symbol of Chinese cultural identity, have a particular place in the hearts of musicians and fans alike. Playing the musical instruments becomes a means of connecting with and celebrating Chinese customs, instilling pride and admiration for Chinese cultural heritage. In recognition of its significance, musical instruments have been declared an intangible cultural asset of China, with efforts being undertaken to preserve and convey its knowledge and abilities to future generations (Feng, 2022).

Influence of Music Education on Student Engagement, Attitudes, and Behaviors

Previous research has focused on the impact of music education on student involvement, attitudes, and behavior, highlighting the impact of this traditional Chinese musical instrument on numerous elements of student development. Several prior research studies have investigated the impact of music education on student involvement, attitudes, and behavior, providing detailed insights into the transforming benefits of this traditional Chinese musical instrument. Liu, (2020), for example, conducted a study that explicitly investigated the impact of music education playing on the emotional states of middle school pupils. Students reported a decrease in tension and an increase in good feelings after engaging with music education on a regular basis. According to the findings, the act of playing music education has a calming effect on pupils, assisting them in managing their emotions and increasing general emotional well-being.

Another study, conducted by (Quintana et al., 2022), looked at the impact of music education ensemble performance on student involvement in a Chinese middle school. Participating in music education ensemble activities greatly enhanced pupils' engagement levels, according to the researchers. The collaborative character of ensemble playing, which encouraged active engagement, cooperation, and a sense of belonging among the kids, was linked to this. The research stressed the significance of music education ensemble activities in creating a supportive and engaging musical atmosphere that contributed to excellent student experiences (Wang et al., 2021).

Ho (2019) investigated the effects of music education on students' views toward traditional Chinese culture. The study discovered that pupils who received music education had more positive attitudes and a greater appreciation for traditional Chinese culture than those who did not receive music education. Learning to play music education exposes pupils to the instrument's cultural significance and tradition, promoting a sense of cultural pride and identity. This implies that music education can be an effective tool for increasing cultural understanding and preservation. Pang (2022) also investigated the impact of music education teaching on student conduct and social skills in a Chinese elementary school. According to the findings, pupils who received music education demonstrated improved behavior, including increased self-control and a decrease in disruptive behaviors. The study also emphasized the development of social skills such as cooperation, communication, and teamwork through music education (Wang et al., 2023). Music education playing encouraged students to collaborate, listen to one another, and coordinate their efforts, which aided in the development of crucial social skills and positive behavioral qualities.

Music Curriculum Development and Inclusion of Musical Instruments

The musical instruments' incorporation in music curriculum development has enormous potential for improving students' musical education and encouraging cultural diversity (Zollo, 2019). Educational institutions can provide students with a deeper understanding and enjoyment of traditional Chinese music by adding musical instruments, so contributing to their general cultural awareness. Including musical instruments in the music curriculum introduces students to a unique musical legacy while also broadening their knowledge of many musical forms and genres (Ybarra, 2021). They will get the opportunity to learn about the musical instruments' rich legacy, as well as their historical significance and particular playing styles. This exposure to a wide range of musical expressions encourages cultural awareness while also broadening students' musical horizons. Learning to play musical instruments has several advantages for students' musical development. Students can improve their motor abilities, hand-eye coordination, and finger dexterity by using the instrument's complicated techniques and intricate finger movements (Kuckelkorn et al., 2021). They gradually master the instrument's techniques through practice and teaching, perfecting their technical proficiency and musical

precision. Furthermore, the expressive characteristics of the musical instruments allow students to explore their imagination and establish their own musical interpretation. Through their playing, students can convey a wide range of emotions, tell stories, and express ideas due to the instrument's melodic range and tone possibilities (Davies, 2020). This encourages pupils to grow their artistic expression while also fostering their uniqueness and musicianship. The addition of musical instruments opens up opportunities for ensemble playing and collaborative learning. Musical instrument ensembles teach students how to coordinate their playing with other musicians, synchronize their rhythms, and blend their sounds nicely (Liu et al., 2019). This collaborative part of musical instrument teaching fosters a sense of camaraderie and collective musical achievement by developing critical skills such as attentive listening, teamwork, and communication. Aside from the musical benefits, introducing musical instruments into the curriculum helps to preserve and promote cultural heritage. Students who learn to play this traditional Chinese instrument become ambassadors for a centuries-old musical culture, ensuring its continuation and passing it on to future generations (Wang et al., 2021). They get a strong awareness of the instruments' cultural value and position in Chinese history, fostering a sense of cultural pride and identity. Educational institutions can work with skilled musical instrument instructors or invite guest performers to provide specialized teaching to properly integrate the musical instruments into the music curriculum (Cheng et al., 2022). They may create a comprehensive program that covers all areas of musical instrument education, including technique, repertory, historical background, and performance possibilities. Allocating resources for the acquisition of music instruments instructional materials, and recordings also helps to promote students' learning experiences and assures their access to excellent resources. Educational institutions promote a more varied, inclusive, and culturally rich learning environment by adding musical instruments into the music curriculum. Students get a deeper understanding and appreciation for traditional Chinese music as well as musical abilities and knowledge (Pang, 2022). The musical instruments enrich students' whole educational experience by broadening their musical perspectives, nurturing their artistic expression, and fostering their cultural understanding.

Previous Research on the Impact of Musical Instruments in Music Education and Its Effects on Student Learning and Behaviors

Previous study has provided useful insights into the role of musical instruments in music education, as well as its impacts on student learning and conduct. This research looked into different areas of musical instrument instruction, revealing light on its transformative impact and the benefits it provides to students. Feng (2022) conducted a remarkable study on the impact of musical instrument teaching on students' musical learning cognitive development and socioeconomic development. The study discovered that learning to play musical instruments improved students'

musical ability with the help of information system reforms. Students who got musical instrument lessons, in particular, displayed enhanced pitch perception, rhythm comprehension, and general musical aptitude with information system reforms. The study emphasized the instruments' distinctive musical obstacles, including intricate finger movements and lyrical phrasing, which contributed to trainees' improved musical talents. Furthermore, the study discovered that musical instrument teaching improved kids' cognitive growth as well as socioeconomic development. Musical instrument learning improved students' attention, memory, and problem-solving abilities, which can be ascribed to the mental exertion and focus necessary during musical instrument practice and performance. Ho (2019) investigated the impact of musical instrument instruction on students' attitudes and passion for music education in terms of motivation and engagement. The researchers discovered that pupils who participated in musical instrument lessons were more motivated and engaged than their peers who did not receive such instruction. The study attributed this to the musical instruments' inherent attraction as an instrument with information system reforms, with its distinct sound and cultural significance capturing students' attention and curiosity. The study also highlighted the hands-on character of musical instrument learning, which included performance opportunities and exposure to a varied musical repertoire. These characteristics influenced enhanced student involvement, active participation, socioeconomic development, and long-term engagement in the learning process.

METHODOLOGY

The purpose of this study was to investigate the influence of musical instruments on the thoughts and actions of music

education students. The subsequent sections provide an exhaustive review of the research techniques, sample selection procedure, ethical issues, interview design, and data collection methods (Figure 1). Aside from musical and motivational factors, studies have looked into the impact of musical instrument teaching on students' socioeconomic development. Wang et al. (2022) investigated the impact of musical instrument training on students' social skills, socioeconomic development, and emotional well-being in a study. According to the findings, kids who participated in musical instrument learning displayed increased social relations, cooperation, socioeconomic development, and communication abilities. Collaborative activities like ensemble playing and group performances promoted student teamwork, mutual support, and effective communication. Furthermore, musical instrument instruction was proven to improve students' emotional well-being by reducing stress and boosting emotional resilience. The study emphasized the significance of music-making and the expressive nature of the musical instruments in providing pupils with a relative information system that reforms a way of emotional expression and release. Wang et al. (2023) also investigated the impact of musical instrument instruction information system reforms on students' behavior and discipline in a school context. The study found that students who took musical instrument classes with information system reforms had better self-discipline, self-control, and focus in both academic and non-academic pursuits. musical instrument education's organized character, including regular practice schedules and performance commitments, taught discipline and time management abilities. Students gained a sense of responsibility and devotion to their musical education, which resulted in better behavior and academic success.

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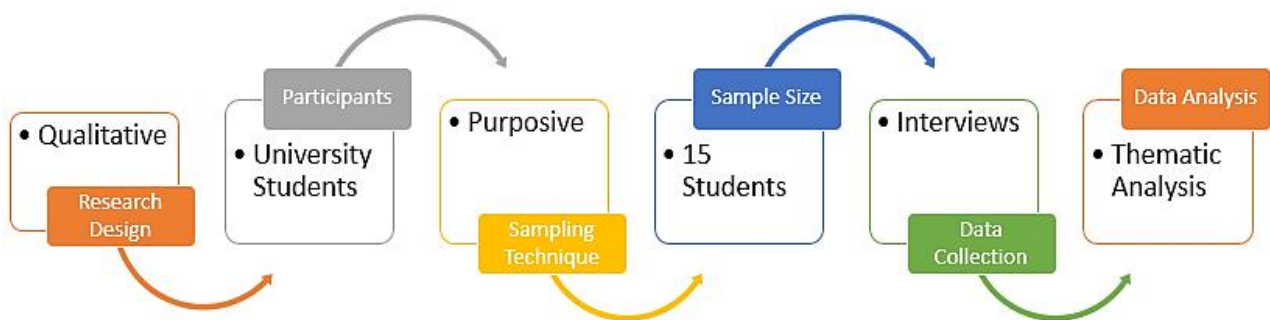


Figure 1. Flow Diagram of Methodology

Justification for Using In-depth Interviews

Because of its potential to generate rich and deep insights from participants, in-depth interviews were chosen as the major research approach. Researchers could establish rapport, provide a comfortable environment, and encourage participants to share their experiences openly by conducting one-on-one interviews. The qualitative nature of the in-depth

interviews allowed for a more comprehensive evaluation of the participants' perspectives and subjective experiences of the musical instrument such as pipa effects. In addition, the interactive nature of the interviews permitted clarifications, follow-up inquiries, and in-depth analysis of the participants' responses.

Description of the Sample Selection Process

The study included a sample of 15 university students chosen using purposive sampling. This strategy was used to ensure that all participants had prior musical instrument experience and were actively involved in music education programs. To capture a variety of opinions, efforts were made to include people with varied musical backgrounds and experiences. Contacting music departments, and student organizations relating to Chinese music and culture, and engaging with music professors who specialize in musical instruments were all part of the selection process. Potential participants were given information about the study's objectives and eligibility requirements. The study comprised those who met the qualifying criteria and expressed a willingness to participate.

Interview Design and Interview Question Development

Based on a thorough examination of relevant literature, research objectives, and guiding research questions, the interview methodology was created. The questions were aimed to elicit participants' musical instrument experiences, their impact on their minds and behaviors, and their ideas of its significance in music education. Flexible and open-ended interview questions enabled participants to express their ideas, feelings, and experiences in their own words.

Methods of Data Collection and Recording

Face-to-face in-depth interviews were done in a confidential and comfortable location, ensuring participants'

privacy and limiting extraneous distractions. The interviews were audio-recorded with the participant's permission in order to accurately capture their comments. The use of audio recording allowed for a thorough and extensive study of the participants' narratives, ensuring that no important material was overlooked. Field notes were obtained during and after the interviews. The field notes aided in the interpretation of the obtained data and provided a full grasp of the interview situation.

RESULTS

Demographic Profile of Respondents

Table 2 provides a comprehensive overview of the demographic characteristics and music-playing experience of the respondents. There are 9 women and 6 men among the responses, so the number of each gender is pretty even. The ages of the participants run from 19 to 23, but most are between the ages of 20 and 22. When it comes to their schooling, most of the people who answered are in undergraduate programs, while two are in graduate programs. There is a clear range of ethnic groups among the people who answered the survey. The table shows that the people who answered are Asian, White, Hispanic, and African. This shows that the study is open to everyone and helps us learn more about what the subjects went through. The respondents have between 1 and 4 years of experience playing the Musical instruments instrument. The majority of participants have two or three years of Musical instrument playing experience, indicating a moderate level of skill.

Table 2. Demographic Profile of Respondents

Respondent	Gender	Age	Grade/Level	Ethnicity	Years of Experience
R1	Female	20	Undergraduate	Asian	3
R2	Male	22	Undergraduate	Caucasian	2
R3	Female	21	Undergraduate	Hispanic	4
R4	Male	19	Undergraduate	Asian	1
R5	Female	23	Graduate	African	3
R6	Male	21	Undergraduate	Asian	2
R7	Female	20	Undergraduate	Caucasian	3
R8	Female	22	Undergraduate	Asian	1
R9	Male	19	Undergraduate	Hispanic	4
R10	Female	21	Graduate	Asian	2
R11	Male	20	Undergraduate	African	3
R12	Female	22	Undergraduate	Asian	1
R13	Female	19	Undergraduate	Caucasian	4
R14	Male	21	Undergraduate	Asian	2
R15	Male	20	Undergraduate	Hispanic	3

KEY FINDINGS

Enhanced Cognitive Abilities

In-depth interviews demonstrated that learning to play musical instruments improved students' cognitive ability. The sophisticated nature of the instrument, which requires complex finger movements, string manipulation, and music piece memorization, necessitated focused and concentrated practice. As a result, students reported gains in socioeconomic development and cognitive abilities such as

increased attention span, concentration, and memory retention. Musical instruments can lead to socioeconomic growth by opening doors to music, music production, and instrument manufacturing employment. Cultural tourism and music festivals enhance local economies by bringing visitors and money. Additionally, music technology and software development have economic possibilities. Information system reforms help in learning and mastering the musical instruments aided in the development of their general cognitive ability.

Emotional Expression and Regulation

Participants stated that playing the musical instruments allowed them to express and regulate their emotions. They talked about how the instrument enabled them to express a wide range of emotions through the songs they created with the help of information system reforms. Students were able to effectively articulate their feelings thanks to the musical instrument's expressive properties, such as its capacity to replicate human speech and elicit varied moods. As a result of their participation with the instrument, students gained a greater understanding of their own emotions and learned how to control and direct them in a positive and creative way such as socioeconomic development, critical thinking, and problem-solving.

Increased Self-confidence and Self-esteem

The students who participated in musical instrument training reported significant benefits in terms of both confidence and self-esteem. As they stepped forward via the mastering procedure and purchased new talents, members felt a feeling of feat and delight in their skills. Overcoming obstacles and mastering challenging skills increased their socioeconomic development self-confidence and belief in their musical ability. Students described information system reforms in musical instrument instruction as having a transforming influence on their general self-perception and self-worth, allowing them to pursue other objectives and difficulties with greater confidence.

Discipline and Time Management Improved

The structured form of musical instrument education was critical in building students' discipline and time management skills. To perfect techniques and memorize music pieces, learning the musical instruments required constant and regular practice. Participants discussed the discipline they

developed through daily practice routines, goal planning, and smart time management. Regular practice sessions instilled a sense of responsibility and increased their ability to prioritize things and manage their time effectively, which went beyond their musical activities and favorably influenced other aspects of their lives.

Social and Interpersonal Abilities

Participating in collaborative musical instrument performances and ensemble playing helped students strengthen their social and interpersonal abilities. When playing with others, participants underlined the necessity of teamwork, active listening, and coordination. Collaborative experiences allowed students to communicate and collaborate with their peers, developing skills including effective communication, mutual respect, and adaptability. Working together toward a similar musical goal improved their capacity to collaborate, appreciate different points of view, and positively contribute to a group dynamic.

Cultural Awareness and Appreciation

Taking musical instrument lessons increased students' cultural awareness and appreciation for Chinese traditional music. Through their interaction with the instrument, participants experienced a sense of pride and connection to their cultural heritage. They emphasized the value of music education as a symbol of Chinese culture, as well as its role in conserving and promoting traditional music. Students gained a better knowledge of Chinese cultural traditions, musical aesthetics, and historical significance by playing the musical instrument. This cultural appreciation extended beyond the instrument, establishing a greater awareness of various cultures and traditions.

Themes and key findings are shown in **Table 3**.

Table 3. Themes and Key Findings

Themes	Key Findings
Engagement	Increased interest and motivation in music education with information system reforms
	Sense of connection and dedication to learning the musical instrument
Attitudes towards cultural diversity	Greater appreciation for Chinese music traditions
	Cross-cultural understanding and respect
Discipline and time management	Structured Learning, Daily Practice
	Effective Time Management, Responsibilities
Skill development	Development of technical proficiency with information system reforms in playing the musical instrument
	Enhanced musical creativity and expression
	Boost in self-confidence and self-esteem
Personal and social development	Improved teamwork and collaboration skills
	Enhanced socioeconomic development and communication skill

ANALYSIS OF STUDENTS' OPINIONS REGARDING CULTURAL ENRICHMENT

The analysis revealed that students highly esteemed the cultural enrichment provided by the musical instrument's inclusion in the music curriculum. Participants valued the

instrument's historical significance and ability to link them to their Chinese heritage. They believed that mastering the musical instruments enhanced their knowledge of Chinese traditional music and cultural customs. Students expressed pride in learning an instrument that reflects their cultural identity and acknowledged the significance of cultural diversity in music education. Participants acknowledged the

musical instruments' distinctive melody and their potential to enrich the musical diversity of the curriculum. The opportunity to investigate a different musical style and expand their repertoire beyond Western classical music was greatly appreciated. Students understood the value of incorporating many musical traditions within the framework of information system changes, highlighting how the use of musical instruments may help create a more inclusive and thorough music curriculum. They expressed pleasure in these changes and emphasized how musical instruments could help them expand their musical horizons. This inclusivity enhances students' musical education, promotes cultural variety, and may open doors to career opportunities in the music industry in terms of socioeconomic development.

The analysis revealed that pupils viewed the addition of musical instruments as a valuable means of enhancing their musical abilities. Participants highlighted the technical difficulties posed by the instrument, including finger dexterity, string bending, and intricate ornamentation. They believed that mastering these skills enhanced not only their musical instrument proficiency but also their overall musicianship. Students valued the opportunity to expand their musical abilities and acquire new techniques through musical instrument instruction. Students acknowledged the

musical instrument's potential for creative expression and individual interpretation. They emphasized the instrument's melodic, rhythmic, and expressive capabilities, which enabled them to impart emotions and tell stories through their performances. Participants valued the opportunity to incorporate their own artistic interpretations into their musical instrument's performance, which fostered their creativity and uniqueness. They believed the inclusion of musical instruments in the curriculum encouraged them to investigate their musicality and fostered their musical expression. The analysis revealed that when learning musical instruments, students exhibited high levels of engagement and motivation. Participants demonstrated a genuine fascination with the instrument and found it captivating and intriguing. They described the pleasure and fulfillment they derived from playing the musical instruments, which motivated them to practice and develop. The students enjoyed the difficulty of mastering the instrument and felt a sense of accomplishment as they made progress. The incorporation of musical instruments in the music curriculum provided students with a distinctive and rewarding musical experience that kept them engaged and motivated. **Table 4** explains the perception of students regarding musical instruments as a valuable means of enhancing their musical abilities. These were obtained from the interviews of different students.

Table 4. Perceptions of Students

Participant	Perception 1	Perception 2	Perception 3
P1	Deeply engaged in musical instrument practice	Increased appreciation for Chinese music	Improved confidence in musical abilities
P2	Enhanced creativity	Sense of cultural connection	Development of teamwork skills
P3	Heightened musical expression	Cross-cultural understanding	Improved communication through music
P4	Motivated to explore new music	Greater respect for diverse traditions	Boost in self-esteem and self-expression
P5	Enhanced musical technique	Expanded global perspective	Strengthened collaboration skills
P6	Improved rhythmic sense	Heightened cultural awareness	Enhanced ability to express emotions through music
P7	Increased dedication to practice	Appreciation for cultural diversity	Greater self-confidence on stage
P8	Broadened musical horizons	Understanding of musical nuances	Improved ability to connect with audiences
P9	Growth in musical interpretation	Openness to learning new styles	Enhanced communication through music
P10	Deepened understanding of music	Embracing cultural heritage	Strengthened musical ensemble skills
P11	Heightened musical sensitivity	Recognition of shared musical experiences	Improved ability to adapt to different music genres
P12	Expanded repertoire of music	Embracing cultural diversity	Development of critical listening skills
P13	Increased passion for music	Appreciation for rich musical traditions	Heightened self-expression through music
P14	Enhanced musical improvisation	Embracing musical diversity	Strengthened communication with fellow musicians
P15	Improved sense of timing	Cultural understanding and acceptance	Development of musical leadership skills

DISCUSSION

Results Interpretation

The study's findings stress the importance of musical instrument education on students' brains and behaviors in

the context of music education. The findings show that using musical instruments with information system reforms improves kids' cognitive development by improving skills such as focus, memory recall, and problem-solving ability. Digital music libraries, online classes, and virtual

instruments are just a few examples of how information system innovations in music education are making a difference for students. These changes make it easier for people to work together and give each other feedback on their music lessons from a distance, making for a more inclusive and accessible learning environment. In addition to inspiring students' imagination and skill development, these programs get them ready for careers in the music industry. Learning to play musical instruments necessitates pupils reading music, comprehending musical theory, and coordinating their hand movements, all of which promote cognitive processes and general mental capacities. Furthermore, musical instrument education has a significant impact on pupils' emotional well-being (Jääskeläinen, López-Íñiguez, & Phillips, 2022). The musical instruments provide pupils with a creative outlet for self-expression, allowing them to channel their emotions and find consolation in music. The musical instrument's melodious and relaxing character leads to stress relief, while the sense of accomplishment, socioeconomic development and pride gained from playing the instrument boosts students' self-esteem and confidence (Cherukunnath & Singh, 2022).

Furthermore, musical instrument education encourages pupils' cultural appreciation and understanding. Students are exposed to the rich legacy and traditions linked with Chinese music through learning to play the musical instruments. This exposure broadens their horizons, helping children to understand and respect a wide range of musical styles and cultural expressions (Kozbelt, 2020). The musical instruments act as a cultural bridge, encouraging intercultural interaction and creating a feeling of cultural interest in students. Furthermore, musical instrument education promotes social connection and teamwork. Participating in musical instrument ensembles or group performances requires collaboration, excellent communication, and playing synchronization. Students acquire interpersonal skills and meaningful connections with their peers through collaborative musical activities, increasing their social development (van der Hoeven & Hitters, 2023). Finally, musical instrument education promotes personal development and discipline. As a result, students develop a strong work ethic and discipline that impacts their lives in areas beyond music. Students learn discipline and work ethic via intense practice, time management, and tenacity to perfect an instrument. It fosters responsibility, teamwork, and emotional well-being, improving academic performance and personal development. musical instrument education promotes self-discipline and personal growth by teaching students to set goals, manage their time wisely, and go above and beyond challenges (Lee & Zhang, 2021).

Comparison of Findings

When the current study's findings are compared to earlier studies on musical instruments and music education, various detailed observations emerge that improve our understanding of the subject. These comparisons highlight both consistency and unique ideas, giving richness to the corpus of research already available. The discussion that

follows expands on these points:

Development of the Mind: The current study's findings are consistent with prior research that has shown that musical instrument education has a good impact on cognitive development. Learning to play musical instruments, in particular, needs concentrated attention, concentration, and mental agility (Nakahira & Kitajima, 2014; Pang, 2022). These cognitive demands help to enhance skills including multitasking, memory recall, and problem-solving. By comparing the current study's findings to earlier studies, we increase the evidence for musical instrument education's cognitive benefits and highlight the instrument's ability to improve students' cognitive capacities.

Emotional Well-being: Previous research has repeatedly found that musical instrument teaching improves students' emotional well-being, and the current study confirms these findings (Jääskeläinen et al., 2022). Learning to play the musical instruments lets students express themselves via music, allowing for catharsis and self-expression. The musical instrument's melodious and calming properties aid in relaxation and stress reduction. Furthermore, the sense of accomplishment and pride that comes from learning the instrument boosts students' self-esteem and confidence (Bond, Vasil, Derges, & Nichols, 2022). The current study adds to our understanding of how musical instrument education improves students' emotional well-being by elaborating on earlier research.

Cultural Respect and Understanding: The current study supports earlier research by demonstrating that musical instrument education enhances cultural respect and understanding. Learning to play the musical instruments introduces students to Chinese music's rich past and traditions (Wei, 2023). This exposure develops cultural curiosity in pupils, extending their perspectives on various musical forms and cultural manifestations (Chen et al., 2019). We get a more nuanced view of the ways in which musical instrument education contributes to cultural appreciation and intercultural discussion by diving into the specific findings of the current study, such as students' reflections on the cultural relevance of musical instruments. Similar to previous research, the current study emphasizes the favorable influence of musical instrument education on social interaction and collaboration among students (Grindheim & Grindheim, 2021). Learning the musical instruments in a group or ensemble environment demands teamwork, communication, and playing synchronization. These musical collaborations build teamwork, mutual respect, and efficient communication abilities (Wu et al., 2020). We obtain greater insights into the specific ways in which musical instrument education benefits students' social development by evaluating the study's details, such as students' experiences performing in musical instrument ensembles (Escamilla-Fajardo et al., 2021; Tomlinson, 2015).

Personal Development and Discipline: The current study's findings are consistent with previous research that emphasizes the personal growth and discipline fostered by musical instrument education. Playing the musical instruments needs consistent practice, devotion, and perseverance (Brancatisano, Baird, & Thompson, 2020).

Students get a strong work ethic, time management skills, socioeconomic development, and the ability to set and fulfill goals as a result of this procedure (Wang et al., 2023). The current study looks into students' unique experiences, shedding light on their socioeconomic development and emphasizing the subtle links between musical instrument education and discipline (Lee & Zhang, 2021).

CONCLUSION

The music education had a significant effect on student engagement, attitudes, and socioeconomic development. Students reported increased concentration, motivation, and self-discipline as a result of learning and playing an instrument with information system reforms. The cultural significance and expressive qualities of the musical instruments resonated with the students, nurturing their emotional health and socioeconomic development. The findings of this study have important implications for the field of music education, particularly in terms of the incorporation of musical instruments such as Pipa. The findings cast light on the musical instrument's transformative potential for enriching music curricula and providing diverse musical experiences. By integrating musical instruments, music education programs can foster cultural appreciation, promote intercultural dialogue, and broaden the musical horizons of students. In addition, the study emphasizes the significance of recognizing and appreciating cultural diversity in music education, thereby promoting a more inclusive and holistic learning environment. Several recommendations for incorporating musical instruments into music curriculum development, information system reforms, and institutional policy are made based on the findings of the study. It is essential that educational institutions prioritize the musical instruments incorporation in music programs, allocating funds for instrument acquisition, teacher training, and performance opportunities. In addition, policies should be developed to support collaborations across disciplines, cultural exchange, and integration in educational settings. Educators should be provided with professional development opportunities to ensure the effective integration of information system reforms of the music instrument into teaching practices. Institutional collaborations, sustainability initiatives, and varied representation in the curriculum all enhance music programs further. Public performances and showcases, as well as regular opportunities for certification and assessment, highlight students' abilities and give them a sense of success. There should be active student feedback systems and chances for educator professional development in place to ensure optimal integration, and research can evaluate and continuously enhance the program. Educational institutions can give students thorough, inclusive, and enjoyable music education experiences by putting these guidelines into practice.

IMPLICATIONS

This study's findings have far-reaching implications for the incorporation of musical instruments into music

curriculum development, information system reforms, and institutional policy. The findings provide insightful information that can inform educational practices and decision-making processes in music education. The incorporation of information system reforms in music curriculum is one of the most significant implications. By granting access to digital resources, encouraging cooperation, and preparing students for music-related employment in the digital age, incorporating information system reforms into music curricula improves education. The findings of the study emphasize the musical instrument's cultural and musical contributions to the curriculum. By incorporating musical instruments, music education programs can expose students to a wider variety of musical traditions and styles. This not only improves their comprehension and appreciation of various cultural manifestations but also promotes intercultural dialogue and fosters a more inclusive learning environment. Additionally, the inclusion of musical instruments enriches the musical experiences of students. Educators can expand their students' repertoire and encourage them to investigate new musical horizons by introducing an instrument with distinct characteristics and historical significance. The melodic and expressive qualities of the musical instruments provide students with a unique sonic palette, allowing them to develop a broader spectrum of musical skills and sensibilities. This variety of musical experiences enriches the educational voyage of students and cultivates their artistic sensibilities. In addition, the study's findings highlight the musical instrument's role in promoting cultural exchange and integration. The musical instruments are profoundly rooted in Chinese cultural heritage, and the inclusion of these instruments in music curricula enables students to engage with this rich cultural tradition. By learning to play musical instruments, students acquire an understanding of the historical and social contexts of Chinese music, thereby fostering intercultural understanding and dismantling cultural barriers. This incorporation of diverse cultural perspectives contributes to a music education environment that is more inclusive and globally minded. The implications of the study's findings extend beyond the classroom to the formulation of institutional policy. The significance of institutional support for musical instrument education programs is highlighted by the positive effects of music education on student engagement, attitudes, and socioeconomic development. Institutions can prioritize the inclusion of musical instruments in music curricula and allocate resources for teacher training, instrument acquisition, and performance opportunities through the development of policies. In addition, policies can be implemented to encourage collaborations with cultural organizations and institutions in order to increase students' exposure to authentic musical instrument performances and cultural experiences. Consideration of professional development opportunities for music educators is also crucial. Successful incorporation of musical instruments into the curriculum necessitates the presence of instructors who are knowledgeable and skilled in teaching the instrument. Institutions can offer workshops, seminars, and training programs to equip educators with the required skills and music educational pedagogical approaches. Institutions

assure the effective implementation of music education and maximize its benefits for student learning by investing in the professional development of educators.

LIMITATIONS AND FUTURE DIRECTIONS

Despite the fact that this study provides valuable insights into the influence of music education on the minds and behaviors of students within the context of music education, it is essential to acknowledge certain limitations. These constraints present opportunities for future research to build on and expand our understanding of the musical instrument's function in music education. First, the study's sample size was modest, consisting of only 15 respondents. This small sample size may limit the findings' applicability to a larger population. Future research could utilize a larger and more diverse sample to ensure a broader representation and increase the study's external validity. Secondly, in-depth interviews served as the sole method of data collection for this study. Incorporating additional research methods such as surveys or observations could provide a more comprehensive comprehension of the influence of music education on student socioeconomic development, whereas interviews provide rich qualitative data. Combining multiple research methods would enable triangulation and bolster the reliability of the findings. An additional limitation is the possibility of respondent partiality. As the study concentrated on student perceptions and experiences, it is possible that participants provided socially desirable responses or exaggerated music education positive impact. In order to give a more fair and comprehensive evaluation of the effects of musical instrument teaching, future studies may choose to incorporate mixed-method approaches, such as objective measurements or observations. Furthermore, this study was conducted in a specific university setting, which may limit the findings' application to other educational institutions or age groups. Future research could investigate effective teaching methods and the impact of various information system reforms on student engagement and learning outcomes. Lastly, the focus of this study was on the influence of the music education on individual students, rather than the potential advantages of group or ensemble-based musical instrument learning. Future research could find value in investigating the impact of collaborative musical instruments playing and researching the dynamics of group learning in music education.

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