Received: May 2023 Accepted: September 2023 DOI: https://doi.org/10.58262/ks.v11i1.1026

Application and Exploration of Multiple Intelligences Theory in Children's Music Education

Jiabao Li 1*, Md Jais Ismail1

Abstract

As parents pay more and more attention to the diversified development of children, extracurricular education is gradually reflected in people's vision, for this reason, this paper introduces the theory of multiple intelligences into the study of children's music education. Through music learning activities, the quality of young children can obtain comprehensive and harmonious development, promote the development and cultivation of music education in multiple intelligences, and generate new contents of children's music education. Closely integrate the theory of multiple intelligences with education and teaching practice, master multiple intelligences teaching and learning, promote children's complementary strengths through cooperative learning, increase children's self-confidence and self-esteem, and emphasize the uniqueness of each child. The analysis shows that the number of children who accurately performed the highest rhythm up to standard 22%, indicating that the immersion teaching mode through the multiple intelligences theory can comprehensively improve the children's perception of rhythm as well as melody, children's interest in participating in learning.

Keywords: children's music education; Multiple Intelligences Theory; cooperative learning; immersion teaching; rhythmic attainment

Introduction

Musical intelligence was among the first of the individual human talents, and Piagetian cognitivist psychology's embrace of all types of art forms, including music, and its involvement in areas such as the critical period for learning music and other arts, personality differences, and characteristics of children's artistic development have begun to develop a consensus among psychology, pedagogy, and arts education. All types of art, especially music, are important elements and objects of basic research in psychology and its neurobiology (Fonseca-Mora, Machancoses, Gryb, & Reiterer, 2021; J. Wu, 2022).

Psychological or neurobiological research using music and other artistic symbols as experimental stimuli can not only answer questions about learning and child development in music education and art education, but also provide psychology with topics that research using words and mathematical logic as stimuli simply cannot consider or imagine, which is the confirmation of the theory of multiple intelligences on music as a form of existence of human intelligence (Zhang, 2021).

The theory of multiple intelligences suggests that musical intelligence is the earliest of individual human talents, but musical talent depends on the environment of life and education for its proper development (Polachini et al., 2022). How to develop children's musical intelligence, which requires kindergartens, schools and teachers to create a loose and free environment for children.

In some countries in Europe and America, the theory of multiple intelligences has a certain foundation for the study of children's music education, especially the cognitive theory of psychology, which has made many theoretical guidance for carrying out children's music education (ÇÖKMEZ & ULUÇ; Yahay, Bani, & Abdel baast, 2021).

¹ Universiti Teknologi MARA, Shah Alam, 40450, Malaysia **Email**: li13789818080@163.com

Based on the theory of Multiple Intelligences, this paper applies the theory of Multiple Intelligences in early childhood music teaching to better enrich the form of early childhood music teaching and cultivate the multiple intelligences of young children. By linking the multiple intelligences theory with early childhood music education, it explores the significance of applying the multiple intelligences theory in music teaching and analyzes in detail the strategies of applying the multiple intelligences theory in music teaching, with a view to providing theoretical references for scholars related to the study of the multiple intelligences theory and early childhood music teaching.

The results show that Multiple Intelligences Theory can give full play to every potential of every person, fully mobilize children's enthusiasm for learning, comprehensively construct children's musical ability in games and entertainment, provide and create an environment for children, and promote children's harmonious and healthy development.

Literature review

The literature (Lopera Pérez, Díaz Posada, Villagrá Sobrino, Charro Huerga, & Molpeceres Sanz, 2019) combines the theory of multiple intelligences with environmental education in order to cope with the diversity of children's learning styles, to promote the expression of their diversity, and to seek environmental knowledge. Teachers' accomplishments in the classroom are exposed in terms of teaching water resources, drawing on the Multiple Intelligences Theory, as well as collaborative research on the impact of initial teacher preparation. Literature (Kalimaya, Feranie, & Agustin, 2021) explored the impact of teaching based on Multiple Intelligences Theory on student achievement, using Multiple Intelligences Theory based teaching methodology for learning and analyzed using SPSS, which led to an increase in student achievement on the topic of circuits with the Multiple Intelligences Theory. Literature (Peng, Du, & Zhang, 2020) attempted to identify a music visualization completion method that resulted in significant changes in participants' self-efficacy after music instruction (AHMED, DINA, NAHAR, ISLAM, & Al REZA, 2018).

The quantitative exploratory design was implemented in a programmable gate array, focusing on quantitative collection and analysis, as well as the use of small narrative components to illustrate quantitative results. The literature (Qiao, Tapalova, Nasyrova, Tarasova, & Kozlovskaya, 2021) suggests that arts education influences preschoolers' emotional knowledge and socio-emotional competence. The results showed a direct and strong correlation between emotional knowledge and arts education with correlation coefficients ranging from 0.718 to 0.8923, and future research would benefit from comparative social and emotional studies. Literature (Zheng & Bian, 2018) suggests that positive psychology plays a very important role in children's music education.

The growth of a child is first and foremost a psycho-physical growth rather than a growth in disciplinary skills. Positive psychology suggests that children's music education should actively provide an environment for children to experience the joy of success, to transform failure into a positive factor, to recognize the value of performance, and to avoid boring and prolonged music learning.

The coronavirus disease pandemic has disrupted educational, peer interaction and socialization opportunities for a large proportion of learners and providing parents with resources to support their children at home has become a necessity. Literature (Hernandez-Ruiz, 2023) study investigated the feasibility of a parent coaching model for music intervention through virtual meetings in resource-poor countries. Literature (S. Wu, 2022) The philosophy and ideology of education in the new era is that every educator should prioritize all students, have full and equal access to education, and make quality education available to every corner of education. Teachers also need to work according to the psychological and physiological characteristics of children with special needs. Take music education as the leading role and explore the development path of combining rehabilitation and education in special education. Literature (Acker, Jobson, & Nyland, 2017) uses video recordings to support the value of reflective practice in order to assess the teaching and learning experience. The quality of children's participation in music groups was observed through a form of observation that focused on the level of participation. The videos were able to identify children's responses to group activities and interpret signs of deeper learning together. The literature (Ilari, Helfter, & Huynh, 2020) suggests that group music making is associated with the emergence of pro-social behaviors in children and adults. The purpose of this exploratory study was to examine how children with varying amounts of musical engagement performed on two pro-social tasks in a formal program and at home, and how parents rated social inclination and interest in music.

Application of Multiple Intelligences Theory in Music Education

Theory of Multiple Intelligences

The Multiple Intelligences theory has received widespread attention worldwide and has had an unprecedented impact on educational theory and practice (Fazaie & Ashayeri, 2018). Multiple Intelligences theory seems that all skills in the problem-solving process are inextricably linked to biology. The theory of multiple intelligences is mainly constructed from biological instincts, although biology also has to be closely integrated with the cultural education therein. This selection of intelligence comes mainly from biology, but also takes one or two or more of these cultural backgrounds into account and then evaluates them together. In the theory of multiple intelligences, intelligence is a product of the interaction between biological characteristics and learning in a given cultural context (Ahn & Kweon, 2020; Gatmaitan, Werner-Gibbings, Sallam, Bell, & Gkoutzios, 2020).

From the classification of multiple intelligences, there are eight main types of multiple intelligences, which include visual-spatial intelligence, physical-kinesthetic intelligence, verbal-verbal intelligence, and visual-kinesthetic intelligence, in addition to interactional-interpersonal intelligence, self-knowledge-introspection intelligence, logical-mathematical intelligence, and musical-rhythmic intelligence. -Kinesthetic Intelligence, Linguistic-Verbal Intelligence, Nature-Observation Intelligence, etc., Figure 1 shows the theory of Multiple Intelligences. The main ones are:

- (1) Interaction-Interpersonal Intelligence mainly refers to the ability to get along and interact with people, which is manifested in the ability to perceive and experience other people's moods, emotions and intentions and to respond appropriately accordingly, and this kind of intelligence is more prominently manifested in people such as teachers, lawyers, salespersons, public relations officers, talk-show hosts, administrators and politicians.
- (2) Self-knowledge-introspection intelligence mainly refers to the ability to recognize, insight and reflect on oneself, which is manifested in the ability to correctly realize and evaluate one's own emotions, motives, desires, personality, and will, and to form the ability of self-esteem, self-discipline and self-control on the basis of correct self-consciousness and self-evaluation, and this kind of intelligence is more prominently expressed by philosophers, novelists, lawyers and others.
- (3) Logical-mathematical intelligence mainly refers to the ability of arithmetic and reasoning, which is manifested in the sensitivity to various relationships among things such as analogy, contrast, cause and effect and logic, as well as the ability to think through mathematical arithmetic and logical reasoning, etc. This kind of intelligence has more prominent performance in detectives, lawyers, engineers, scientists and mathematicians.
- (4) Musical-Rhythmic Intelligence Musical-Rhythmic Intelligence mainly refers to the ability to feel, discriminate, memorize, change and express music, which is manifested in an individual's sensitivity to music, including rhythm, tone, timbre and melody, and the ability to express music through composing, playing and singing, etc. This kind of intelligence has a more prominent expression in the composer, conductor, singer, musical instrument maker and musical instrument tuner.
- (5) Visual-Spatial Intelligence mainly refers to the ability to feel, identify, remember and change the spatial relationship of objects and express thoughts and emotions through it, which is manifested in the sensitivity to lines, shapes, structures, colors and spatial relationships, as well as the ability to express them through flat graphics and three-dimensional modeling. This kind of intelligence is more prominent in painters, sculptors, architects, navigators, naturalists and military strategists.
- (6) Physical-kinesthetic intelligence mainly refers to the ability to use the limbs and trunk, which is manifested in the ability to control one's own body well, to respond appropriately to events physically, as well as the ability to express one's own thoughts and feelings through the use of body language, which is more prominently expressed by athletes, dancers, surgeons, race car drivers, and inventors.
- (7) Linguistic-verbal intelligence mainly refers to the ability to listen, speak, read and write, and is manifested in the ability of an individual to utilize language smoothly and efficiently to describe events, express thoughts

and communicate with others; this intelligence is more prominently manifested in people such as journalists, editors, writers and political leaders.

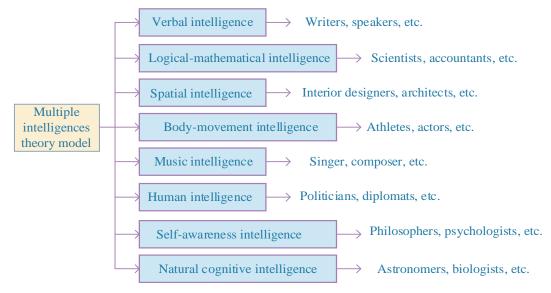


Figure 1 Theory of Multiple Intelligences

Integration of children's music education

Musical intelligence is the ability to perceive, recognize, remember, adapt and express music, including sensitivity to pitch, rhythm, duration and timbre (Hedden & Allen, 2019). The Swiss music educator Dalcroze once cautioned that human beings are born with rhythmic instincts, which only need to be induced and cultivated to be used for music. This shows that humans are born with the gift of music, and therefore everyone can develop this intelligence. Childhood is a critical period for the development of sensitivity to sound and pitch, which is decisive for the development of musical ability. The development of musical intelligence cannot be separated from music education. The so-called music education is a kind of basic quality education of human beings by means of music, which is a kind of art education and belongs to the category of aesthetic education. Music education embodies the following two goals: one is the direct goal, i.e., learning music through education, and the other is the ultimate goal, i.e., educating people through music, both of which are complementary and inseparable. Pre-school children's music education is through music learning activities to make the quality of young children to obtain comprehensive and harmonious development. The most obvious aspect of this kind of education that promotes children's individual development is that music education can effectively develop individual intelligence, which can be seen in the theory of multiple intelligences. The fact that musical intelligence can take its place among the multiple intelligences shows that there is no reason to belittle the value of music education, because the development of musical intelligence is mainly realized through music education. Music education develops and nurtures multiple intelligences of human beings directly or indirectly, explicitly or implicitly. Therefore, the integration of preschool children's music education and the research of multiple intelligences theory has a common basis, music education belongs to art education, and music intelligence is one of the contents of multiple intelligences theory. In this sense, the proposal and practice of multiple intelligences theory provides an important theoretical reference for early childhood music education. At the same time, preschool children's music education is an important way for the development and cultivation of musical intelligence, which in turn prompts people to realize the important position and role of music education in preschool children's music education, thus promoting the development of preschool children's music education, which in turn promotes the development and cultivation of other intelligences other than musical intelligence in the multiple intelligences (Fortuna & Nijs, 2020). Therefore, the theoretical basis for the integration of multiple intelligences theory and preschool children's music education lies in the fact that there are some points of convergence between the two, and these points of convergence generate new contents of children's music education (SHAKHOVSKOY, 2018).

Construction of a diversified children's music teaching model

In the information age, it is impossible for a person to master all the subject knowledge, and analyzing from the perspective of multiple intelligences, traditional teaching overemphasizes language and mathematical intelligence and neglects the cultivation of students' multiple intelligences such as sports, music, interpersonal relationship, self-knowledge, etc., which makes the students' other aspects of intelligence suppressed to a certain extent, and it is difficult for them to show their intelligence advantages fully (Sheikhtaheri, Khanahmadi, & Sourtiji, 2022). If Gardner's theory of multiple intelligences is closely integrated with the practice of education and teaching, it will open up a new thinking space for education and provide a brand-new perspective for education and teaching activities. Teachers who are able to master multiple intelligences teaching and learning will be able to better adapt to students' intelligence specialties and promote students' intelligence development (Lee & Liu, 2021; Moon & Kim). When art and music activities are used in classroom teaching, learning becomes interesting. By providing appropriate learning styles according to children's needs, interests and potentials, the multiple intelligence classroom is like the real world, and children are more active and engaged in learning (Serdaroglu, 2018). Cooperative learning promotes complementarity of children's strengths so that everyone can demonstrate their strengths and everyone can hopefully become an expert in something (Kuzenko, & Matsuk, 2021). This, in turn, increases children's confidence and self-esteem. Education based on multiple intelligences means that teaching and assessment are based on children's intellectual strengths and weaknesses (Kondracka-Szala & Michalak, 2019). Teachers organize instruction around problems, allow children to make sense of them in multiple ways, and value the uniqueness of each child. The professional role of the teacher changes from the traditional knowledge transmitter to facilitator, resource provider, learning facilitator, motivator and contact person. A pluralistic approach to teaching and learning involves the development of superior intelligences, the enhancement of weaker intelligences, and the transfer of characteristics of superior intelligences to other areas of learning. Emphasis is placed on the fair evaluation of intelligence. This intelligence needs to be directly assessed in its functioning: teaching and assessment are combined, and emphasis is placed on the direct assessment of children's participation in musical activities in all their manifestations in teaching and learning situations. Being able to learn to feel meaning from music is an important goal, and this requires the creation of instructional objectives to enable children to learn better. As shown in Table 1, the construction of teaching objectives, through a harmonious and relaxed musical atmosphere, allows children to perceive the charm and characteristics of various forms of music, and comprehensively improves the overall aesthetic ability. By participating in music practice, children can be better immersed in the situation, enjoy the happiness brought by music, and better understand the connotation of music through their own perceptual experience. Children learn that music is an essential component of human civilization and develop a greater emotional attachment to musical works. They can experience different genres of music, gradually understand the connotation of music, and discover the potential value of music. Understand the characteristics of traditional Chinese music and culture and accept different styles of music from other countries with a peaceful mind.

Table 1 Construction of the teaching objectives

Build the scene		Effect Content		
Music situation		Children can feel the beauty of music. Through a harmonious and relaxed music atmosphere, children can perceive the charm and characteristics of various forms of theme music, comprehensively improving their overall aesthetic ability.	Inspired by the theory of multiple intelligences, teachers can create a more vivid and lively music teaching atmosphere, guide students to actively participate in music teaching activities, gradually stimulate their learning initiative, and then enable music teaching to truly play its due role.	
Music practice		Children can understand and express music. By participating in music practice, children can better immerse themselves in the context, enjoy the joy brought by music, and better understand the meaning of music through their own emotional experience	The theory of multiple intelligences has important enlightening effects on middle school music education. We should continuously explore and summarize in music teaching practice, by establishing the concept of multiple intelligences teaching and teaching students according to their aptitude.	
Multiple	music	Children can understand music culture.	Maximize the teaching guidance role of	
experience		Let children know that music is an	the theory of multiple intelligences to	

essential	component	of	human	solve	practical	problems	in	music
civilization	and generate	more	emotions	teachir	ng and cre	ate an effic	ient	middle
towards mu	sical works			school	music clas	ssroom.		

Due to the generally young age of children, it may be difficult for them to fully understand a stereotypical educational environment, therefore, the need to be innovative and to keep children interested and engaged in music is a crucial component of the teaching process.

Table 2 shows the construction of the teaching program, including:

(1) In organizing the teaching process, many teachers believe that the most difficult part is how to make children interested in the activity, which is also known as the introduction of the activity. The beginning of the immersive teaching mode of children's music education under the vision of multiple intelligence theory is the context, which is mainly aimed at attracting children's attention and stimulating learning interest. When choosing the context, it is necessary to take the specific teaching content as the basis, for example, if the class explains vocal works, it can be combined with the lyrics to design the corresponding rhythm, melody or story scenarios. If the classroom content is instrumental music, it can be combined with the history of music development and acoustic characteristics, to understand the characteristics of different sections, and then skillfully connect them. In addition, it is necessary to take into account the children's own life experience when creating the scenarios. Of course, if the scenario is too simple, it is difficult to mobilize the children's interest in learning, so the appropriateness of the scenario must be fully considered. (2) After entering the music situation and experiencing the music themselves, children will have a general grasp of the focus of the music activity. Through this process, the children can use the fun of experiencing the music themselves, and at the same time learn musical skills and techniques, on the basis of which they can develop their own personalized performances. While the first two sessions focused on experiencing the music together, this session involves children briefly summarizing the experience and expressing it in a way that feels more comfortable to them personally.

Table 2 Construction of the teaching procedures

Program construction	Purpose	
Situational creation	Classroom explanations are for vocal works, which can be combined with lyrics to design corresponding rhythms, melodies, or story scenarios. Based on the development	
Situational creation	history of music and the characteristics of sound, gain a deep understanding of the	
	characteristics of different segments.	
	Through this process, one can experience the joy of music firsthand and learn the skills	
Inspired summary	and techniques of music, based on which personalized performances can be carried	
inspired summary	out. In the first two stages, the main task is to experience music together, and in this	
	stage, children need to briefly summarize the content of the experience,	
Personality expression	Children perceive that music creation is not as difficult as they imagine, and as long as	
	they dare to try, they can create ideal music.	

In order to test the success of the immersion model in achieving its goals, children's musical literacy can be evaluated in a comprehensive manner, with the main references being cultural understanding, artistic performance and musical aesthetic perception. The teacher evaluates each child differently according to his or her level. Two methods are used, the first is outcome-based and the other is process-based. When music learning is over, other musical activities can be created to enrich the learning process. Evaluation is used as a purpose so that children can be integrated into an informal evaluation environment, express their personal ideas, demonstrate their personal musical ability and understanding, and learn how to apply the elements of music correctly through musical situations. The constructs of pedagogical evaluation are shown in Table 3. In the process of music evaluation, children should fully grasp the basic knowledge of their own learning and clarify their own musical literacy, because this is a steppingstone for the formation of children's musical literacy, but not for the ultimate goal of music education. The aim of children's music education is to enrich their spiritual life and to realize their own musical ideals, as well as to cultivate their personal character and the key elements of their social development. Children need to be evaluated separately by their teachers on these elements, and feedback should be given in real time on the basis of an evaluation system that does not take evaluation as the end of learning.

Table 3 The construction of the teaching evaluation

Evaluation construction	Meaning		
Music literacy level	Test of cultural understanding, artistic expression,		

	and musical aesthetic perception		
Process evaluation and outcome evaluation	Apply the musical elements correctly		
Evaluation results	Adjust the activity content		

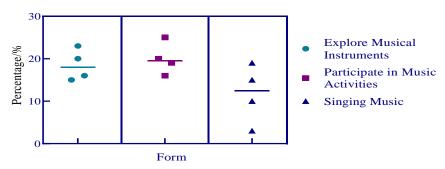
Application and Evaluation of Multiple Intelligences Theory in Children's Music Education

Exploration of Musical Enthusiasm and Musical Ability

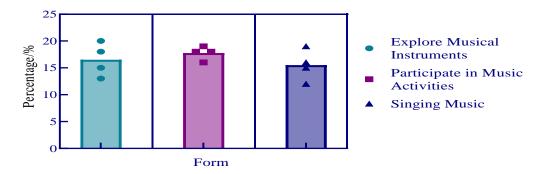
This paper explores the culture, understanding, perception, and interest in music of 50 children in a school's first-grade class and first-grade class 3, and comprehensively analyzes the effects of the immersion teaching method of children's music education in the perspective of the multiple intelligences theory to enhance music literacy.

A comparison of the enthusiasm to participate in music activities, the preference for music, and the ability to explore musical instruments of each 50 children in two first-grade classes in this school is shown in Figure 2. Figure 2(a) shows the students' learning in the first-grade class. After the teaching of Multiple Intelligences theory, the number of children who reached the standard of actively exploring musical instruments in the first-grade class increased by 16%, and the number of children who reached the standard of actively participating in music activities increased by 12%. The number of children who actively explored musical instruments to meet the standard increased by 6% and the number of children who actively participated in music activities increased by 4%. The theory of multiple intelligences emphasizes the potential of individuals in different areas of intelligence, and by identifying and cultivating students' different intelligences, their motivation and initiative in music learning can be enhanced.

Figure 2(b) shows the learning of students in Grade 1, Class 3. Before the educational application of Multiple Intelligences Theory, the initiative of participating in music activities and singing music were both around 15%, and the initiative of exploring musical instruments was close to 18%. After the educational application of Multiple Intelligences Theory, the initiative of exploring musical instruments increased by 2% and participation in music and singing music increased by 3%. For the analysis of the initiative study of the second class, the highest increase in the initiative of exploring musical instruments was 4%, and the initiative of children who actively participated in music increased by 1%. The goal of applying multiple intelligences theory to early childhood music teaching is not to cultivate outstanding musicians, but to stimulate children's interest in music learning through a quality music teaching model, and to fully stimulate children's potential abilities in order to help them form a sound personality.



(a) Grade 1 class 1 students before and after the comparison



(b) Class 3 students before and after comparison

Figure 2 Music Enthusiasm and Exploring Music Ability

Comparison of pitch and timbre music perception

Repeatedly applying the Multiple Intelligences Theory's immersion teaching model and making adjustments to it in light of the actual situation, it can be found that the children's interest in learning can be greatly increased. Analyzing the specific application of immersion teaching in two classes, it is not difficult to find that, compared with the previous teaching mode of demonstration-imitation, the teaching mode of musical context and multiple musical expressions can significantly enhance children's interest in music learning. The before-and-after comparison of musical perceptions such as judging pitch and identifying timbre is shown in Figure 3. The number of children who could accurately recognize rhythm increased by 14%, the number of children who could accurately tell the number of times the melody was repeated increased by 20%, the number of children who could accurately experience musical emotion increased by 4%, and the number of children who could accurately judge pitch increased by 4%. The number of children who could accurately name the number of times the melody was repeated remained basically unchanged, the number of children who could accurately judge the pitch increased by 2%, and the number of children who could accurately experience the musical emotion remained basically unchanged. It is easy to see that children's perception of rhythm and melody can be improved through the Multiple Intelligences Theory immersion mode. However, the improvement in musical emotion, pitch and timbre recognition was not significant. Tone recognition and pitch recognition require children to have rich musical experience, so we need to focus on improving this aspect of the teaching process in the future and increase the relevant teaching content.

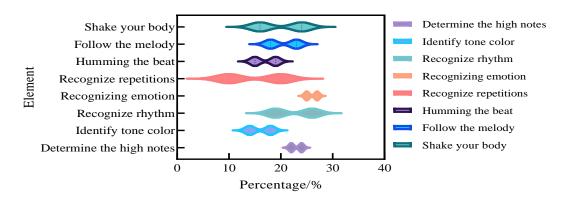


Figure 3 Comparison of pitch and timbre music perception

A before and after comparison of the performance rhythm performance pitch of 50 children in the first-grade class and first grade class of the school is shown in Table 4. The magnitude of improvement shows that children's rhythm improved more, while their pitch performance ability did not improve as much. The number of children in the first-grade class who accurately performed rhythm to meet the standard was 22% and the number of children who accurately performed pitch to meet the standard was 4%. The number of children in Year 1 Class 3 who accurately performed to the rhythm standard was 4% and the number of children who accurately performed to the rhythm standard was 4% and the number of children who accurately performed to the pitch standard was essentially unchanged. The main reason for this effect is that it is inextricably linked to the excessive content of rhythmic performance in the music

pedagogy content, as the improvement in accurate rhythm was 9% and 22%, and the improvement in accurate harmony was 17% and 16%, respectively. In terms of treble performance, children accurately grasp that the amplitude is slow, in the future music teaching process can use more instruments such as the piano, so that children gradually have the concept of pitch.

Table 4 Shows the contrast before and after the rhythm and pitch

Aspect	Class One		Class Three		
	Before	After	Before	After Application	
	Application	Application	Application		
Accurate Rhythm	15%	27%	22%	38%	
Accurate Pitch	6%	19%	19%	34%	
Accurate Scale	19%	26%	23%	44%	
Accurate Force	21%	34%	25%	39%	
Accurate Beat	13%	22%	18%	40%	
Accurate Harmony	22%	39%	26%	42%	

Discussion

In the future, with the in-depth study of the Multiple Intelligences Theory, more accurate assessment methods can be used to understand the type of Multiple Intelligences of each child, so that individualized music education programs can be tailored. This will enable educators to guide children in a more targeted manner so that they can find confidence and enjoyment in the field of music. In addition, with the development of technology, the application of virtual reality and augmented reality will also bring unprecedented possibilities for children's music education. Through virtual reality technology, children can experience various music scenes immersively, expanding their musical perception. At the same time, the introduction of artificial intelligence and personalized learning systems will also make music education more flexible and efficient, truly tailored to each child's potential. Overall, the theory of Multiple Intelligences opens up a brand-new path for children's music education, allowing us to recognize and guide children's musical potential in a more comprehensive way.

Conclusion

The core of children's music education under the vision of Multiple Intelligences Theory is to rely on the theoretical support of Multiple Intelligences to construct an immersive atmosphere of children's music education under the vision of Multiple Intelligences Theory with hands-on experience, teaching objectives oriented to the overall development of children's body and mind, teaching environment with hands-on experience as the condition, teaching activities centered on the interaction of the subject, the object, and the environment, and teaching evaluation for the purpose of analyzing and diagnosing the learning realities. The purpose of teaching evaluation is to analyze and diagnose the learning situation. Thus, the children's learning process is immersed wholeheartedly, up to 22%, so that the learning behavior is more joyful in exploration and discovery, and thus the quality of teaching is greatly improved. The number of children achieving the standard for accurate rhythmic performance was 22%, and the number of children achieving the standard for accurate pitch performance was 4%. The number of children achieving the standard for accurate pitch performance was 4%. The number of children achieving musical instruments in Grade 1, Class 2 increased by 6%. The teaching program of children's music education in the perspective of multiple intelligences theory is conducive to the improvement of children's interest in music and the improvement of children's music perception ability.

Reference

- Acker, A., Jobson, S., & Nyland, B. (2017). Revisiting video data to research children's involvement when engaged in purposeful musical activity. *Australian Journal of Music Education*, 51(1), 29-40.
- AHMED, M. S., DINA, S. R., NAHAR, L., ISLAM, N. N., & Al REZA, H. (2018). Molecular characterization of Channa species from Bangladesh based on Cytochrome c Oxidase Subunit I (COI) gene. *FishTaxa*, *3*(4), 87-93.
- Ahn, H. J., & Kweon, D. W. (2020). Exploration of child's musical reaction during the children's buddhist hymn utilized music activity. *Korea Journal of Child Care and Education*, 124, 135-167.
- ÇÖKMEZ, Ö. G. N., & ULUÇ, Ö. Ü. T. F. AN ANALYSIS OF THE MULTIPLE INTELLIGENCES THEORY IN COURSEBOOKS OF TEACHING TURKISH AS A FOREIGN LANGUAGE.
- Fazaie, S., & Ashayeri, H. (2018). The impact of music education on 7-9-year-old children's creativity in Tehran. *Iranian Journal of Psychiatry and Clinical Psychology*, 24(1), 16-28.
- Fonseca-Mora, M. C., Machancoses, F. H., Gryb, O., & Reiterer, S. (2021). Musical aptitude, working memory, general intelligence and plurilingualism: When adults learn to read fluently in a foreign language. *Cogent Education*, 8(1), 1936371.
- Fortuna, S., & Nijs, L. (2020). Children's verbal explanations of their visual representation of the music. *International Journal of Music Education*, 38(4), 563-581.
- Gatmaitan, R., Werner-Gibbings, K., Sallam, M., Bell, R., & Gkoutzios, P. (2020). Conservative Management of a Splenic Artery Aneurysm in Pregnancy: A Case Report.
- Hedden, D. G., & Allen, A. D. (2019). Conductors' literature selection practices for community children's choirs in North America. *International Journal of Music Education*, *37*(1), 3-21.
- Hernandez-Ruiz, E. (2023). Virtual Parent Coaching of Music Interventions for Young Autistic Children in Mexico. *Music Therapy Perspectives*, 41(1), e21-e29.
- Ilari, B., Helfter, S., & Huynh, T. (2020). Associations between musical participation and young children's prosocial behaviors. *Journal of Research in Music Education*, 67(4), 399-412.
- Kalimaya, S., Feranie, S., & Agustin, R. (2021). The effect of multiple intelligence theory based teaching towards students' achievement on electrical circuit topic. Paper presented at the Journal of Physics: Conference Series.
- Kondracka-Szala, M., & Michalak, M. (2019). Popular music in the educational space of polish preschools—the teacher's perspective. *International Journal of Music Education*, 37(1), 22-42.
- Kuzenko, P., Kuzenko, O., & Matsuk, L. (2021). Use of Arttherapy Techniques in Pedagogical Accompaniment of Children with Special Educational Needs. *Journal of Vasyl Stefanyk Precarpathian National University*, 8(1), 141-147.
- Lee, L., & Liu, Y.-S. (2021). Use of decision trees to evaluate the impact of a holistic music educational approach on children with special needs. *Sustainability*, 13(3), 1410.
- Lopera Pérez, M., Díaz Posada, L. E., Villagrá Sobrino, S. L., Charro Huerga, M. E., & Molpeceres Sanz, C. (2019). Multiple intelligences theory applied to environmental education in inclusive settings.
- Moon, S. Y., & Kim, E. S. A study on the response of 2-year-old toddlers in the application process of the movement education activities using music. *Journal of Children s Literature and Education*, 20(3), 313-333.
- Peng, M., Du, Q., & Zhang, Z. (2020). WITHDRAWN: Children's music teaching visualization system based on FPGA and machine learning. In: Elsevier.
- Polachini, R., Bavia, L., Andrade, F. A., Lidani, K. C., Picceli, V. F., Signorini, N. M., . . . Reason, I. J. (2022). Evaluation of the Lectin Pathway in the Serum of Patients with Chronic Chagas Disease by Detection of C4 by Elisa. *Jornal Brasileiro de Patologia e Medicina Laboratorial*, 58. doi:10.1900/JBPML.2022.58.400
- Qiao, S., Tapalova, O., Nasyrova, L., Tarasova, I., & Kozlovskaya, D. (2021). RETRACTED: Role of art programs in young children's social-emotional learning. In: Elsevier.
- Serdaroglu, E. (2018). Ear training made easy: Using IOS based applications to assist ear training in children. European Journal of Social Science Education and Research, 5(2), 265-272.
- SHAKHOVSKOY, I. B. (2018). Specific features of distribution in the World Ocean of some flying fishes of the genera Exocoetus, Hirundichthys and Cypselurus (Exocoetidae). FishTaxa, 3(4), 40-80.
- Sheikhtaheri, A., Khanahmadi, S., & Sourtiji, H. (2022). A mobile-based sensory diet application to educate parents of children with attention deficit/hyperactivity disorder. *Journal of Health Administration*, 24(4), 11-22.
- Wu, J. (2022). The design of project work based on the multiple intelligences in junior high school. *J. High. Educ. Res, 3*(2), 160-162.

- Wu, S. (2022). Research on the Application of Music Education in the Combination of Rehabilitation and Education in Special Education. *Arts Studies and Criticism*, 2022, 3 (1): 53, 55.
- Yahay, M., Bani, A.-R., & Abd-el baast, K. (2021). Analyzing the reality of the education process at najran university in light of the theory of multiple intelligences among faculty members. *Psychology (Savannah, Ga.), 58*(1), 5842-5863.
- Zhang, B. (2021). Multimedia music education based on adaptive genetic algorithm and heterogeneous processors. *Journal of Ambient Intelligence and Humanized Computing*, 1-14.
- Zheng, L., & Bian, C. (2018). Children's music education from the perspective of positive psychology. Educational Sciences: Theory & Practice, 18(6).