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Analysis of How the Music Curriculum Can Contribute to the Implementation of Quality Education from a Cognitive Developmental Perspective

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Abstract: As the demands on children's quality development grow, music is gradually becoming a way of developing good morals. The purpose of this paper is to analyse how the music curriculum can contribute to the implementation of quality education from a cognitive developmental perspective based on existing literature and research results. With regard to music education, three aspects are analysed: humanistic, aesthetic and practical. Concerning cognitive development, it is analysed through four stages of cognitive development. The result shows that the music curriculum has largely improved the cognitive, intellectual and psychological abilities of students, and the application of cognitive development theory in education has improved teachers' teaching methods, together contributing to the development of quality education. The application of theory in education has led to a steady shift in the educational paradigm towards a focus on individual differences and a greater student-centred approach. According to research, there is a direct correlation between musical quality and cognitive growth. The aesthetic foundation of the music curriculum is stressed, with a goal of encouraging qualitative growth. Teachers have a solid theoretical foundation to work from when they change lesson plans because of the theory of cognitive development.

Keywords: music curriculum, quality education, Jean Piaget's Theory of Development

1. Introduction

Within the contemporary educational world as well as in society, quality education is a necessary part of students' development. It strives to improve all aspects of students' quality, which includes intellectual development, personality development and psychological development. Among the many types of curriculum, the music programme stands out. The music curriculum runs from kindergarten to university. For the youngest children, it is a great way to get started in the learning environment and to acquire new knowledge as soon as possible. For children and adolescents, music courses are a great way to relieve stress and also to improve memory in some way, thus reducing the time spent memorizing boring knowledge [1]. Furthermore, from the perspective of cognitive development, Piaget provides the theoretical basis. The application of the theory promotes a change in the way education is delivered [2]. In previous research, Cathy Benedict argues that music programs are built to be relevant to the intellectual, moral, and health of students. She states that music is beneficial not only for memory and attention, but also for perceiving the dangers of good, evil, and disease [3].

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Going back to quality education, the core of which is the overall development of the student, the music program plays a role in promoting it. The purpose of this paper is to discuss the benefits of music education and its importance in promoting the implementation of quality education, as well as to further analyse the implications for education from a cognitive developmental perspective using existing theories and research results from the literature. The intention of this paper is to present and analyse how the music curriculum influences children's cognitive development, thus advancing the wider implementation of quality education. Thereby, it not only provides a theoretical basis for teachers to further modify their teaching methods, but also makes children's development more transparent and provides society and schools with a deeper understanding of children.

2. Music Curriculum and Quality Education

2.1. Music Curriculum and Impacts on Students

The music curriculum is an important part of culture and education. Music is committed to developing the humanistic, aesthetic and practical aspects of students, which are interconnected and correspond to each other [4]. The humanistic aspect of music brings pleasure to students learning tedious knowledge, when the aesthetic aspect can relieve exhaustion after long hours of book learning, most often through listening to music. This approach will allow students to relax physically and mentally and slowly develop a good mental attitude, which is where the practicality of music comes into play.

First of all, the humanistic nature of music is reflected in its contemporary and national character. The musical expression of people's feelings about life has developed in different ways at different times. Whether in the form of musical themes or musical styles, we should make the best traditional and modern music an important part of our teaching, and guide students to learn and understand musical culture. The different cultures that have emerged from different times and regions, and the different interpretations of music from different cultural creators are certainly a good way to help students remember what may seem like a boring, long-winded piece of knowledge. The language of music is also a culture, a juxtaposition to the written word [5]. For teachers, the cultural heritage function of the music curriculum should be given full play in teaching.

Secondly, the aesthetic nature of music consists of three elements: listening, feeling, and appreciation. The first step for students is to learn to listen to music. In the process of listening to music, they will increase their experience of music appreciation as well as their psychological experience of pleasure. After listening to a great deal of music, they will step into the music, feel its connotations, and improve their musical aesthetic skills step by step in the process of accumulating musical aesthetic experience [6]. When students have the ability to feel the music alone, they will slowly enjoy it, and it will bring them physical and mental pleasure. In addition to developing an appreciation of music, the music curriculum is accompanied by a brief study of theory and musical instruments. Music can be divided into Eastern and Western music, the difference being that Eastern music is based on the pentatonic scale, while Western music is based on the heptatonic scale. For musical instruments, there is also a distinction between Western and Eastern instruments. Whichever instrument a student learns, they will improve their aesthetic skills, learn to express their emotions through music, and also release the stress caused by learning theoretical knowledge [7].

Finally, the music course is a very practical course that requires students to learn by doing, to summarize shortcomings and to improve. It requires students to improve their proficiency and enhance their abilities through repeated training and to participate in performances or competitions to test themselves within their abilities [4]. Music teachers should continue to strengthen their own practical music performance skills and improve their teaching methods to further motivate their students. Transforming students' perceptions of practice and making them aware of the importance of music practice in their day-to-day teaching. At the same time, more practical experience will help

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to improve students' learning and organizational skills and will also enable them to overcome their nervousness about being on stage and develop good psychological qualities [8].

2.2. Role of the Music Curriculum in Quality Education

Nowadays, quality education is a model of education dedicated to improving the capabilities of the educated in all aspects. This model of education is open to all students, and it advocates the principle of equality for all, with each individual enjoying equal rights. Quality education emphasizes the all-round development of students' moral, intellectual, physical, social and aesthetic abilities, and includes not only intellectual and moral education, but also physical education, aesthetic education, social and practical education and so on [9].

Throughout the elements included in quality education, they have numerous points in common with the music curriculum. Firstly, music education helps to improve the physical and mental health of students and reduces mental stress. When they listen to pleasant music, the beautiful melodies stimulate their brains to relax them mentally and relieve the fatigue caused by long hours of listening and studying. At the same time, those who enjoy singing regularly will get a good workout. In most schools, extra-curricular music activities such as class choir competitions or band performances are held to develop teamwork among students. By participating in these musical activities, not only introverted students but also the rest of the class will increase their communication with each other and improve their relationships, then gradually become more open and mentally healthier [10]. It is clear that music programs help students to develop both physically and mentally, which corresponds to the physical education aspect of quality education.

In addition, music is an expression of emotion. The bold melodies and uplifting lyrics help to educate students about morality and make it easier for them to understand the story behind the lyrics and the connotations of the music [11]. Apart from the music, teachers can also watch some musicals with students to give them a sense of the diversity of the music and guide them to imitate the musicals to further experience the charm of the musicals and thus gain a deeper understanding of the mystery. Thus, listening to music or musicals and imitating them not only enlivens the classroom atmosphere and increases students' interest in music but also slowly leads students to receive moral education.

Music education includes an aesthetic education in music. Students learn about the music of different countries and nationalities, understand their cultures, feel the differences and learn to appreciate them. Music is in fact an abstract existence, and the charm of it is mainly felt by listening to music. This alone is conducive to developing students' imaginative and creative abilities, which in turn develops their intellect. A study found that children who learn music are smarter and learn and absorb knowledge faster than those who do not learn music [1]. Music education gives students an objective view of the world and enables them to develop their overall intelligence. Not only does it allow students to concentrate for longer periods of time, but it also speeds up the rate of reaction and the efficiency of solving things.

3. Jean Piaget's Theory of Development

3.1. Four Stages of Cognitive Development

Piaget's theory of cognitive development is an exploration and summary of the process of cognitive development in the human body. Piaget divided the child's intellectual development into four stages, from new-born infancy to adulthood: sensorimotor, preoperational, concrete operational and formal operational stages. In Piaget's theory, it is concluded that cognition is based on existing schemata and then assimilation, accommodation and equilibration, which is a process of development from lower to higher levels [12].

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The first is the sensorimotor stage, which covers the period from birth to 2 years of age. Infants in this stage perceive the world mainly through touch and also through imitative behaviour. Infants are not exposed to music and songs sung to entertain the baby [13]. When they first heard the songs, they did not know what they meant, but over time they would construct the song schema in their brains and become interested in them. For example, when the baby is unhappy, the mother can make him laugh by singing upbeat songs, thus letting him know that such songs can make him happy. When the baby does not want to sleep, the mother can sing lullabies to put the baby to sleep, and thereby they will subconsciously remember that when they hear such songs, it means it is time to sleep. Also, listening to music will cause them to become attached to it and can make babies quiet, laugh and sleep. Currently, babies do not have the ability to appreciate or understand music, but they can respond when they perceive a familiar melody.

In addition, the second stage is the preoperational stage, which includes children from 2 to 7 years of age. This stage is the beginning of children's intellectual development. Unlike the previous stage, children can now think about something, but not in a way that guarantees logic. Children are introduced to kindergarten and it is the teacher's task to make sure that children who are new to knowledge remember it in a fun and easy to understand way. Kindergarten teachers' primary responsibility is to care for the children while also assisting them in learning through play. Research has shown that most kindergarten classes are taught in the form of music [14]. As an example, a boring old poem becomes interesting when a melody is added to it, and while a single humming of the song may not make the children remember it, they will gradually remember the content of the song day after day, and therefore the poem. At the same time, they think that the teacher has also remembered the poem in this way, so they naturally accept it. This also confirms and corresponds to Piaget's theory that children at this stage are self-centred, lacking in logical thinking, and that their perception of the world depends mainly on external appearances.

Following this, the third stage is the concrete operational stage, covering those children between the ages of 7 and 11 in primary school. As children reach the age of seven, they become relatively independent and can also think about things and think briefly in abstract terms. For the music curriculum in primary education, theoretical knowledge of music theory is added, rather than remaining superficial. At the same time, pupils are encouraged to learn musical instruments, which is also intended to give them a better understanding of music theory. At the primary level, students are exposed to the basics of music theory in order to develop the ability to read music independently and to improve their understanding and perception of music. Once students have acquired some knowledge of music theory, they will find that many of their difficulties will be solved when they play the music [15]. This makes practice more efficient, so that instead of practising blindly, they practise with a purpose. Compared to the previous stage, children are less self-centred and have a more objective perception of a thing. Furthermore, this stage is not only less of a transition than the adolescent period, but also a turning point in cognitive development.

The progression into adolescence is the final stage of cognitive development, the formal operational stage. Cognitive skills are upgraded at this stage, moving from simple to complex abstract thinking, as well as becoming more logical and able to use hypotheses to solve problems. The same goes for the content of the music curriculum, which deepens step by step in terms of knowledge of music theory and teaching of musical instruments as they enter middle school and high school or even university. Music appreciation courses have been added to the curriculum in junior and senior schools [16]. The content of the books is normally deep and difficult to understand, which is also a challenge for teachers. In order to help students develop a relationship with music, teachers can guide them through percussion rhythms, allowing them to experience the appeal of percussion instruments and learn to appreciate them. Following on from this, at the university, music major students will study it in depth and systematically, whether it is composition, performance, music theory or appreciation.

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Students can also study by themselves, as they are able to think and act independently at this stage and do not need reference materials. In contrast to the previous three stages, students at this stage are not limited by specific things and can make assumptions and logical deductions about how to solve problems and methods.

3.2. Benefits to Quality Education

Nowadays, Piaget's cognitive theory is widely used in education and teaching, which has an important impact on educational practice. In the classroom, teachers are expected to be student-centred and to develop learning plans that are appropriate for each child. For learning outcomes, there should be a greater focus on the process by which students obtain answers rather than focusing on the outcome and ignoring the process. As a group, students cannot be educated in a universal way. With students who are disabled, teachers need to recognize and accept the individual differences between students and be patient. Each has a different ability to receive knowledge, and teachers try to avoid making generalizations when assessing. Meanwhile, the teacher should organize more group activities and discussions, which will facilitate communication between students and also encourage those who are lagging behind to keep up with everyone else.

Thus, Piaget's message to education is that teachers should not only pay more attention to students and put them at the centre, but also hold group or outdoor activities to promote their cognitive development [2]. This type of teaching, combined with the inculcation of the music curriculum, will help students establish the right values and stimulate their love and pursuit of beauty, thus promoting their aesthetic skills, which is the key to quality education. Teaching is student-centred and allows students to take the initiative to express their artistic opinions, enhance their aesthetic abilities and learning skills in an enjoyable practical music activity, thus improving their personality.

4. Conclusion

In conclusion, the music curriculum has indeed promoted the development of quality education and through the practice of theory in education, the educational model has gradually become more student-centred and more focused on individual differences. As far as research is concerned, music, quality and cognitive development are inextricably linked. The music curriculum is taught on an aesthetic basis, with a focus on fostering quality development. The theory of cognitive development provides teachers with a good theoretical basis when modifying lesson plans. So far, the article is an analysis of theory and past research and lacks examples of a more practical approach. For future research, there is a need to discuss the relationship between the music curriculum and cognitive development and to conduct more practice, more research and collection of feedback from students, and whether music will become more important in promoting quality development in the future.

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