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### Applications of Multiple Musical Intelligence in Learning Process of Special Education Needs Student with Hearing Impairment

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#### Abstract

Multiple Musical Intelligence presented by Howard Gardner refers to intelligence that involves the ability to understand, create, and appreciate music from various aspects (Gardner, 1998). An individual with musical intelligence will naturally be more inclined towards music. Individuals with musical intelligence will show a rich interest in identifying musical rhythms and melodies, knowing patterns in music, being able to create or improvise with music. In addition, musical intelligence is not limited to playing or creating music with the use of various musical instruments, but also involves an appreciation of music and the ability to use music to evoke various emotions or moods in daily life.

Keywords: Multiple Musical Intelligence, Learning Process, Special Education, Special Needs Student, Hearing Impairment

#### Introduction

Musical Intelligence according to Howard Gardner's Multiple Intelligence Theory is closely related to a person's musical skills. In general, everyone is interested in music. But high musical intelligence refers to someone who is very sensitive to sounds and songs (Alwi & Nordin, 2022). Musical intelligence refers to the ability to recognize songs, formulate rhythms, detect

tones and melodies. High musical intelligence prompts a person to appreciate music, sound and a performance. Apart from that, they also like to appreciate music and sound, like to sing and play musical instruments such as piano and drums. They like to listen to songs in their daily lives and this makes it easy for them to recognize melodies and songs easily. Their level of understanding of musical structure is also high compared to other people their age. A person with high musical intelligence has the opportunity to become a singer, instrument player and song lyricist.

Multiple Intelligence Theory can give teachers the opportunity to identify students' abilities according to their interests and then provide PdPC according to students' intelligence. Special Education students also show musical intelligence in class (Bin Nordin et al., 2022). Throughout my career as a Special Education teacher, many students have shown musical intelligence. One of them is a student with multiple disabilities, autism, mental retardation and hyperactivity. This student is a student who cannot master language skills and has limited gross and fine motor skills. However, students' interest in music is very high. He was able to sing songs that he had heard several times and showed a high level of involvement in the subject of music. This student can also play a musical instrument without getting bored. When compared to other subjects, this student shows a high interest and involvement in the subject of music. After identifying the intelligence of this student, I, as an English and Mathematics teacher, began to introduce musical aspects and activities in PdPC.

For example, I included a number-themed song in a math subject to teach numbers 1-10. Pupils are taught to count 1-10 in the form of a song. For English subjects, songs and 'rhymes' are always inserted in 1 hour of PdPC time. This situation encourages and increases the concentration of these students in class. This student can also show improvement in the ability to recognize numbers and count 1-10. Musical intelligence among autistic students is high compared to other special needs students. The autistic students in the class can actively involve themselves in PdPC that has elements of music (Bin Shafie et al., 2022). Singing and dancing can attract students with special needs. Teachers play an important role in knowing the intelligence of students and providing activities according to their interests.

### **Literature Review**

There are 9 types of multiple intelligences according to Howard Gardner, namely naturalistic, existential, linguistic, kinesthetic, logical-mathematical, visual-spatial, musical, interpersonal, intrapersonal and spatial intelligence. Most students with special educational needs (SED) have problems in mastering language, verbal and linguistic, especially children with autism. An individual uses words to convey something through language that is arranged with a sentence structure and has meaning. However, the cognitive state of autistic children can limit their language ability in everyday life. There are autistic children who are unable to communicate verbally in everyday life and experience difficulties in the socialization aspect (Jaya et al., 2021).

Nevertheless, there are autistic children who have an advantage in using certain languages such as mastery of the English language because the language used is simpler and not confusing. Autistic children's command of English is better than normal children. Through observation at school, I think the average autistic child learns through imitation. They imitate a lot and repeat the language but cannot understand the meaning or express it well. The ability to master the language of autistic children can be formed and honed through speech therapy,

occupational therapy, swimming, horse riding and so on. Individuals who can speak well are able to convince others and build self-confidence in building a career and facing everyday life. Difficulty mastering language makes autistic children unable to socialize with peers and society. Most autistic children have problems in expressing their feelings and opinions according to the appropriate situation at the same time giving rise to the stigma of society that thinks these children cannot be independent on their own (Mizan et al., 2021). Along with the speed of technology and expertise, there are many types of therapy that can be carried out to help children with autism improve their verbal skills. Stimulation and support from various parties is essential to help autistic children improve their language, verbal and linguistic skills better.

### **Discussion**

Musical Intelligence is a form of multiple intelligence that is very interesting and plays an important role in human life. This intelligence allows individuals to express themselves through sound and music, conveying their emotions, ideas, and experiences in unique and creative ways (Mosbiran et al., 2021). In addition, various studies have shown that musical intelligence is closely related to cognitive development, helping to improve abstract thinking skills, concentration, memory, and math skills. In my view, musical intelligence is one of the most valuable intelligences that can provide many benefits in terms of academic and socio-emotional development of a student with special needs.

Musical intelligence plays an important role in learning because this intelligence can improve various cognitive and non-cognitive skills. For example, musical intelligence can improve the communication skills of students with special needs. The use of Music will provide a form of non-verbal communication for students who have difficulty with speech or language (Nordin & Alwi, 2022). For example, autistic students will find it easier to express themselves through music than through words. In addition, by exploring musical intelligence in the teaching and learning process, students with special needs can develop social skills. When students play music in groups, this process can help students with special needs develop social skills such as taking turns, cooperation, and teamwork. For example, participation in a school band or choir can give students the opportunity to interact with their peers and work together to achieve a common performance.

For students with special educational needs (SEN), musical intelligence has a significant impact on their development and learning. Musical intelligence gives MBPK the opportunity to develop their potential that may be less visible in other intelligences, including talents or specific interests in music (Nordin et al., 2022). In the context of MBPK who face difficulties in communicating, musical intelligence can be an alternative form of communication that allows them to convey emotions, desires, or needs through sound (singing or humming) and melody.

### **Conclusion**

Musical activities also help in the social and emotional development of MBPK, where they learn about cooperation, develop empathy, and learn to listen to each other through playing musical instruments together or singing in groups. Learning and musical activities that involve hands-on activities can also improve their cognitive development, fine and gross motor coordination. In addition, it is also able to help improve the level of pattern understanding, memory, and cognitive skills such as problem solving, critical thinking, and concentration.

Musical intelligence also gives MBPK the opportunity to appreciate their culture and identity through musical activities. They can identify themselves in the context of traditional or contemporary music from their own culture, which increases their sense of pride and strengthens their identity as unique individuals. Therefore, it is important to provide access and opportunities to MBPK to engage in musical activities and appreciate their intelligence. With the right approach and the right support, musical intelligence can be a powerful tool for learning, communication, social development, and improving the quality of life of MBPK.

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