

EXERTING INQUIRY BASED LEARNING METHOD IN IMPROVING GIFTED STUDENTS' MUSIC RECORDER SKILL

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Abstract. Previous studies show most gifted students have tendency towards music. However, it was found that most gifted students were having problem playing recorder using existing teaching methods. This has caused low achievement score in music subject. The purpose of this study is to determine the effectiveness of the inquiry based learning method to enhance the recorder playing skills among gifted students. The study was conducted at a gifted institution in Malaysia. Data were collected through observation using Music Instrument Rubric and group interview in the fieldwork. Respondents were 27 gifted and talented students who did not attend any formal training in Western music and the only music background they had was gained from the school curriculum. Result reveals the inquiry learning method improves students' achievement in recorder playing compared to previous conventional method. Observation indicates that students could play the entire song well in terms of pic accuracy, tempo consistency, tonal, musical shape and performance. Interview data shows students felt satisfied with their own style in determining the proper way to master the recorder skills. This study is expected to provide appropriate music teaching methods in the gifted and talented education system.

Keywords: *music, recorder, gifted education, action research, inquiry method, discovery learning*

Introduction

Music is precious and significant to gifted students (Ismail and Anuar, 2020). Thus, the teaching implemented by music teachers during teaching and learning process can give an impact on students' performance (Ismail and Loo, 2018; Md Jais et al., 2018b). According to Stronge (2018) and Kamis et al. (2019), the effectiveness of teachers teaching in schools is based on how much learning or skills students acquired with teachers' guidance. One of the best ways for students to learn or acquire something from teaching activities is that planned by the teacher. The fact is, the effectiveness of teaching lies in the ability of teachers to create a comfortable environment for their students to experience learning that will lead to the desired results and make the learning experience something fun and meaningful. Although students have mastered a particular skill, the teaching methods used by teachers can enrich the skills and make students further appreciate a learning (Olcay and Vuran, 2019).

Teig et al. (2018) have proposed student-centred inquiry methods which as well appropriate in current education in teaching and facilitation activities in schools. Teaching strategies using discovery inquiry is a natural learning and is believed to encourage students to study student topics in detail. Findings through investigation of an event or event that triggers curiosity by attracting students to ask various questions, exploration and produce a product or concept. It can also generate scientific meaning to the learning outcomes. This learning procedure emphasizes the experiences experienced by the students themselves by giving them space to relate with meaningful and enjoyable learning experiences.

According to Gay (2018), effective teaching context refers to the ability of students to expand concepts, drive their findings and experiences towards lifelong tasks responsible for maintaining peace and well-being of society. Students are not only required to dig for knowledge but the learning process that takes place is also expected to shape the morals and ethics of students. Teaching strategies that are planned and carried out should take into account the factors that can produce a balanced student in terms of all physical, emotional, spiritual, intellectual and social aspects. Learning using a student-centered discovery inquiry approach enables students to play an active role in the learning process in the classroom and also be able to adapt knowledge, improve skills and apply good values in life (Silm et al., 2017).

Music Education in gifted field is still new and fresh in our country. Although it was introduced in 2011 but its implementation using its own curriculum had started in 2016. Various activities have been planned to enable the needs of Music Education to be met according to the needs of gifted and talented students. Among the activities carried out in the teaching and learning process is the recorder playing. It is an obligation for all gifted students in the country to play the recorder as a basic musical instrument before exploring other percussion instruments. In this teaching process, the approaches and methods used by teachers should be in accordance with the nature of students' It demands effective methods that can aid the development of intelligent students from cognitive, emotional and spiritual aspects. Thus, a well-designed education system allows intelligent students to explore, delve into topics, produce products, solve problems and make self-reflective reflections. This is aligned with the Malaysian Education Philosophy to produce knowledgeable Malaysians who contribute to the well-being and prosperity of the country.

Problem statement

Music is found to be important to gifted and talented students (Md Jais et al., 2018a). The differences in terms of intensity and high cognitive abilities require music to enrich the skills and talents of gifted students to drive their abilities to the optimum level. At Malaysian gifted institution, music is a compulsory subject for Foundation 1 to Foundation 3 students who are 11 to 15 years old. The students consist of legitimate academic gifted children after passing a series of gifted competency tests which qualified them to participate in the gifted and talented education program. In the music class conducted, students needed to play at least one musical instrument in which the basic exposure of playing a musical instrument used a recorder. With the emphasis in the field of science and mathematics, the implementation of music was found to be quite challenging to be implemented at the Malaysian gifted institution.

Based on the researcher's observations and experiences, the recorder playing was found to be the most challenging activity to be taught to gifted and talented students.

This was identified due to the emphasis in Science and Mathematics activities such as olympiads and robotics as well as was influenced by the lack of interest of gifted students to explore music. Busyness and lack of interest have caused the lack of time for students to perform recorder training after teaching and learning sessions. Finally, gifted students were not able to achieve good results in music tests especially recorder playing. Most students complained that they did not have ample time to practice and faced difficulty in playing the recorder based on the scores given. This is in line with the findings of Tolar (2016) that gifted students faced time management problems to practice music. There were students who questioned why music should be studied since it was not compulsory in *Sijil Peperiksaan Malaysia* (SPM) examination and often disputed the marks given by the teacher. The gifted students' perceptions of music reflected as if they were stressed with music. The results of the recorder practical test conducted four times a year showed unsatisfactory results for the majority of those gifted students. They were found to be unable to play the entire song, wrong recorder fingering technique, the melody of the song was not smooth and often made note mistakes. Despite being given opportunities and interventions, students still could not achieve excellent results until there were 65 out of 166 students who obtained unsatisfactory marks and failed. This is related with Tolar (2016) who found that gifted students who were liable to the academic field do have difficulty mastering a musical skill.

Conventional methods that have been conducted found that students could not play the entire song score after four times of teaching and learning processes. The conventional method procedure is to teach one note at a time and rhythm to the student. Students played the recorder based on the song score displayed in front of the class and were guided to play the recorder according to the song, bar by bar. Students were also heard the real sound of the song. The results were disappointing when the researchers found that only a handful of students were able to sound the recorder correctly. Nearly 70 percent were unable to display the correct fingering technique and could not play the entire song even though the teaching was conducted repeatedly for four times a month. This has enlightened the researcher to seek for an alternative to enable the students to play the recorder smoothly without putting pressure on them. The inquiry method, thus, was specified to be applied as an intervention in this study after considering on several factors of the effectiveness of inquiry that have contributed to the effective learning of gifted students accordance with the recommendations of Nik Zarini and Salmiza (2012).

Objective of study

The objectives of this study are; (1) to identify the musical achievements of gifted students in music recorder playing; and (2) to explore the behavior of gifted students while learning recorder.

Understanding the gifted traits

Every high-potential or intelligent individual should be given the opportunity to maximize his or her cognitive development and self-talent until he or she excels and contributes towards the field he or she is pursuing (Renzulli, 2000). Tidwell (1980) study proves that there is one intelligent student for every 10,000 children. Therefore, educational institutions are among the divisions responsible for educating and providing appropriate interventions to all students who have the characteristics of intelligence, so

that they are able to contribute in their respective areas of expertise. Educational institutions also play a role in ensuring that the curriculum and teaching strategies are truly meeting the educational needs of gifted children (Md Jais et al., 2020).

According to Gardner, intelligent individuals master and possess exceptional skills, in one of the seven Multiple Intelligences but moderate in other areas (Ismail and Anuar, 2020). Sayi and Icen (2019) assess that intelligent children belong to a group with very high mental potential. They do not need to be taught like other normal children but are given the opportunity to learn on their own. Gifted students are said to like to learn systematically, to focus fully while the teacher is teaching in the classroom as well as diligently doing the exercises given by the teacher (Zahidi et al., 2021). In the bargain, they learn easily, quickly and have high curiosity and are interested in high learning and academic achievement (Lv et al., 2019). They are sensitive and respond immediately to instructions and are able to solve problems in their own way. Gifted children also displays the characteristics of maturity when adapting to new situations, however, they are very sensitive to what is going on around them (Kamis et al., 2019). Cases of crime, pollution, unfair treatment can make them depressed.

Gifted students have an unlimited interest in academics, merely. It can consist of arts, sports, and language activities. The study of Md Jais et al. (2018b) shows that gifted students tend to play musical instruments. They love to explore musical instruments and have high ambitions in the field of music. This proves that gifted students have a wide range of interests and hobbies. They are focused and able to spend a lot of time exploring things that interest them. They do it well and give high focus especially on abstract and detailed things. The work done is usually being done alone and they solve an academic problem in their own way (Shore et al., 2019). Although they are observed more towards introverted attitudes, self-study is a strength for them.

Inquiry discovery based learning method

Discovery inquiry method is one of the student-centered learning methods conducted through exploration based on existing knowledge (Dellatola et al., 2020). It aims to increase students' understanding through self-discovery. The role of the teacher is to observe and facilitate by providing learning needs. Students are allowed to use learning materials according to their needs but should be closely monitored by teachers for fear of dangerous tools that could potentially threaten students' safety. Through this method, students master a learning topic with the help of effective teaching materials. From a pedagogical perspective, discovery inquiry methods adapt self-project tasks through projects, experiments, scientific investigations, involving learning to solve a problem as well as collaborative learning. The teaching and learning process includes activities of exploration, questioning, and high-level thinking skills (Siti et al., 2018).

Discovery inquiry is one of the alternative teaching and learning methods recommended for all teachers. This method is able to answer all students' curiosity, research and give students the freedom to explore the field of study. Students are fully involved in learning activities. In addition, discovery inquiry learning adapts constructivist learning that encourages active learning. The learning process in the classroom involves the process of inquiry or exploring and digging for new knowledge through students' self-learning experiences. The inquiry process also involves mental processes such as making observations, solving, measuring and calculating, making inferences, making predictions, discussing, relating space and time, interpreting data, defining operationally, controlling variables, making hypotheses and applying

knowledge to produce learning products. quality (Siti et al., 2018; Mahalingam and Hamzah, 2016). The use of discovery inquiry method is said to be more meaningful to students as the students themselves are looking for answers to solve problems.

The impact of the discovery inquiry method is enormous on the effectiveness of students' learning. Hariani (2019) study found that inquiry methods can develop students' potential, mature self-control, sharpen intelligence and form a true personality. Nik Zarini and Salmiza (2012) reinforced these findings with the results of studies that showed that inquiry of findings can stimulate students' curiosity, fun, encourage further investigation, provide opportunities for students to build new knowledge and maximize student involvement in the teaching and learning process (Cairns and Areepattamannil, 2019). Through the inquiry-based teaching method of this discovery, the researchers believed that it is extremely apt to be used against gifted students who match the traits of intelligence. Although discovery inquiry methods are widely used in Science classes, their use as an intervention in music classes has the potential to create new impacts and discoveries.

Materials and Methods

Research design

This study employs a qualitative approach as conducted by Anuar et al. (2020) through an action research approach where respondents were given interventions based on problems that have been successfully identified. In conducting this action research, the researchers adopted the characteristics suggested by Abdul Rahman (2007) and Ismail et al. (2021) where action research was conducted in the actual school situation of the respondents, involving teachers, and localizing intervention actions. The action research approach used is based on the Comprehensive Action Research Model developed by us as shown in *Figure 1*. The intervention took two weeks from 8 April 2019 to 19 April 2019.

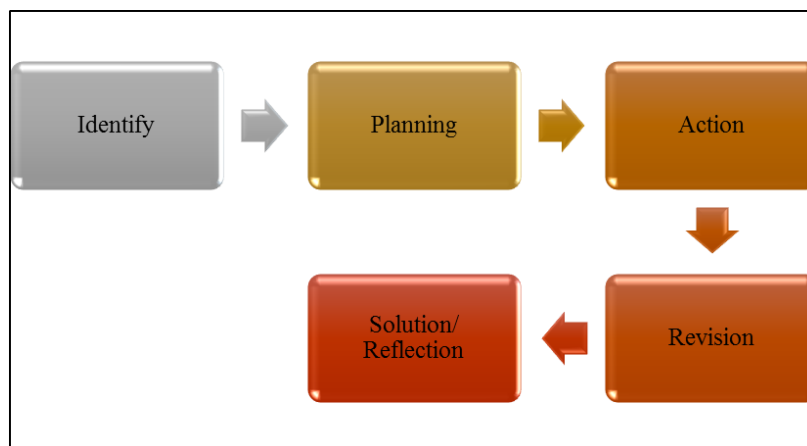


Figure 1. Comprehensive action research model.

Sample

A total of 27 gifted and talented students aged 12 to 13 years who are in the lower secondary education level, namely Foundation 1 at a Malaysian gifted institution were selected. There are 14 male students and 13 female students selected through

convenience sampling. These gifted students did not attend any intensive music classes and only possessed basic knowledge of music such as note names and recorder fingering names for notes B, A and G. Respondents' profiles are as per *Table 1* and *Table 2*.

Table 1. Profile of respondents based on gender.

Gender	Frequency (N)	Percentage (%)
Male	14	52
Female	13	48
Total	27	100

Table 2. Profile of respondents based on age.

Age	Frequency (N)	Percentage (%)
12 years old	4	15
13 year old	23	85
Total	27	100

The selection of this sample is in line with the study of Zakharova et al. (2018) and Md Jais et al. (2020) who have involved gifted and talented students samplings aged 12 to 13 years in the previous study.

Data collection

Data collection methods are group observations and interviews. Observations of non-participants as recommended by Alias et al. (2016) were conducted to observe the real situation in terms of the smoothness of the recorder playing at the end of the teaching and learning session. A set of checklists adapted instruments scoring criteria of the Associated Board of the Royal School Music London (ABRSM), 2018 includes aspects of pitch (notation), tone, tempo (time), shape and performance as shown in *Table 3*.

Table 3. Recorder playing scoring checklist.

Marks	Pitch	Tempo	Tone	Shape	Performance
Excellent 85-100	Very precise notes and intonation.	Smooth and flexible according to the situation.	Good sound recorder.	Expressive, precise and meticulous form of music recorder.	Confident, committed and has its own style.
Good 70-84	Sound accuracy of recorder notes and intonation.	Smooth recorder rhythm playing.	Sensitive to tones used.	Clear and thorough form of music.	Be positive, convey the message of the song, and practice style.
Satisfactory 60-69	Proper notes are played in general, sufficient intonation to control the tone.	Appropriate tempo, stable bits, and proper rhythm play.	Tones can be controlled and awareness of good tones.	There is awareness of the form of music in recorder or meticulous recorder playing.	Playing the recorder comfortably, can correct mistakes.
Not satisfactory 50-59	Often plays note errors, inadequate	Improper tempo, uncontrolled	Unacceptable, insufficient tonal	Non-parallel forms of music and playing.	The playing is out of control and unable to

	intonation.	bits, and rhythm errors.	awareness.		correct the validity.
Weak 40-49	So many note errors are played.	The tempo and bits are out of control and inconsistent.	Can't take tonal control seriously.	No awareness of musical form and not thorough.	Cannot play the whole song and does not show style.
Fail Below 40	Too many note and intonation errors, not playing the desired note.	The tempo is out of control and no effort is made.	Serious or no tonal awareness is produced.	The music form of the recorder is chaotic or does not play the musical form.	No effort to control or improve the quality of recorder playing.

Group interviews were conducted in a semi-structured manner in accordance with the recommendations of Frey and Fontana (1991). The questions asked were open where the respondent was free to answer the questions asked. Here are the questions asked to the respondents; (i) Is the score played difficult? And why? (ii) How is it done to be good at playing song scores using a recorder? And (iii) What to do if you can't play a song well?

We adapted the interview protocol according to Zan (2012) guidelines where interviews were conducted face-to-face and semi-structured.

Data analysis

The method of data analysis in this study is according to Lisah (2011) guide where observation data through video recording analysis and content of notes made during observation in the classroom. The researchers observed the musical behavior of the studied respondents from the video recording according to the checklist provided. Researchers also observed problems that arose during this recorder playing that were aligned with the notation bars in the music score. Then, the researchers recorded important information such as musical concepts shown or listened to during the recorder playing activity. We classified the notes observed in the theme to facilitate the process of data translation. *Figure 2* shows an example of video recording content analysis.



Figure 2. Video recording content analysis.

Notes: (1) Students played the whole song. (2) The first 209 minutes, students practiced on their own based on the recorder fingering chart provided. (3) Then, students started interacting with friends and talking. (4) Students practiced with friends.

In addition, the interview method was also analysed based on Lisah (2011) recommendation where the interview content was transcribed and then analysed manually. The researchers encapsulated the actual expressions of the respondents and aligned them with the theme without evaluating whether the responses given were correct or incorrect. This coding process was based on the group response of the respondents where the words most commonly mentioned by the students were coded as the theme. The researchers also obtained the consent of the respondents to explain an abstract sentence to be more complex for example the sentence '*I practice closing the recorder hole*' was changed to '*practice recorder fingering*'. The triangulation process was performed by repeating the questions asked and getting the same answers from the respondents.

Procedure for performing inquiry interventions

Researchers provided learning materials such as fingering charts, recorders, note stands, and computers. The researcher chose the song score from the 'beginner' category, namely 'Cool Blues' created by David Bruce and 'Coming Round The Mountain' (no song creator as it belongs to the folk song group) which was re-arranged by the researcher to suit this study. The song scores of 'Cool Blues' and 'Coming Round The Mountain' which have been rearranged using Musescore software are as shown in *Figure 3* and *Figure 4*. Instructions were given to students to play two songs using a score-based recorder. Students were only explained on the rhythm of the song, as well as how to read the fingering of the recorder and the name of the notes on the accompanying recorder chart. Students could listen to the rhythm and melody of the songs 'Cool Blues' and 'Coming Round The Mountain' on the computer provided. Students sought information and practiced recorders on their own in four music classes that have lasted for two weeks. Teachers acted as observers and facilitators as suggested by Siti et al., (2018). Students were given two weeks to study on their own using this inquiry method. After two weeks, students were tested one by one in class using the Recorder Playing Scoring Checklist as mentioned in Table 1. Observations on the aspects of pitch, tempo, tone, shape of music and performance were carried out by the researchers. Each action shown or listened to will be given marks as contained in the rubric.

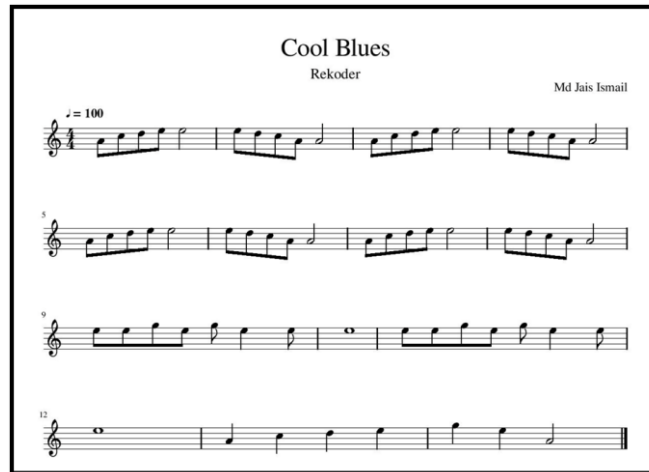


Figure 3. Song score 'Cool Blues'.



Figure 4. Song score 'ComingRound the Mountain'.

Results and Discussion

Musical achievement of gifted and talented students

Based on researchers' observations, all students could play the whole song. For the song 'Cool Blues', there were 12 students categorized as 'Excellent' as they could play the recorder with the correct pitch, tempo, and tone. The form of music was clearly played and practiced using their own style. A total of five students were categorized as 'Good' as they were able to play the song with the correct fingering and tempo, but there were note errors on the 9th and 11th bars of the 'Cool Blues' song as shown in *Figure 5*. This was identified due to the new quaver notes and rhythms that caused the students' confusion on changes in tempo and fingering. A total of 10 students were categorized as 'Satisfactory' as they could play the song with the right notes and

fingering, appropriate tempo but played at a slow pace. In the song of 'Coming Round The Mountain' it was found that 22 students did not play the notes smoothly at bars 11, 12, 14 and 15 as shown in *Figure 6*. This problem was identified due to the note distance, making it difficult for students to switch the fingering.



Figure 5. Note errors in song 'Cool Blues'.

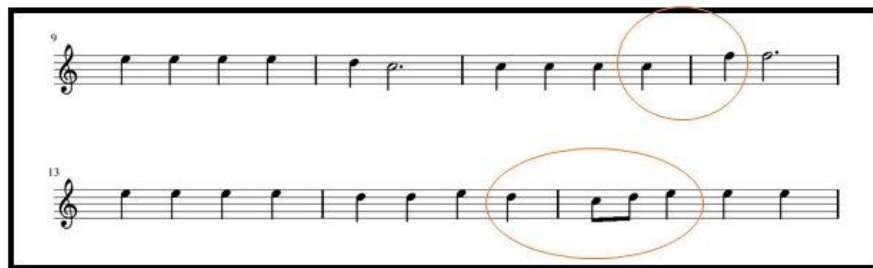


Figure 6. Note errors in song 'Coming Round the Mountain'.

Nevertheless, based on the Recorder Playing Observation Rubric, the respondents have managed to play the whole song without making serious mistakes in terms of pitch, tempo, tone, shape and performance. The results show that 5 students obtained grade A +, 7 students obtained grade A, 12 students obtained grade B + and 3 students obtained grade B as shown in *Figure 7*.

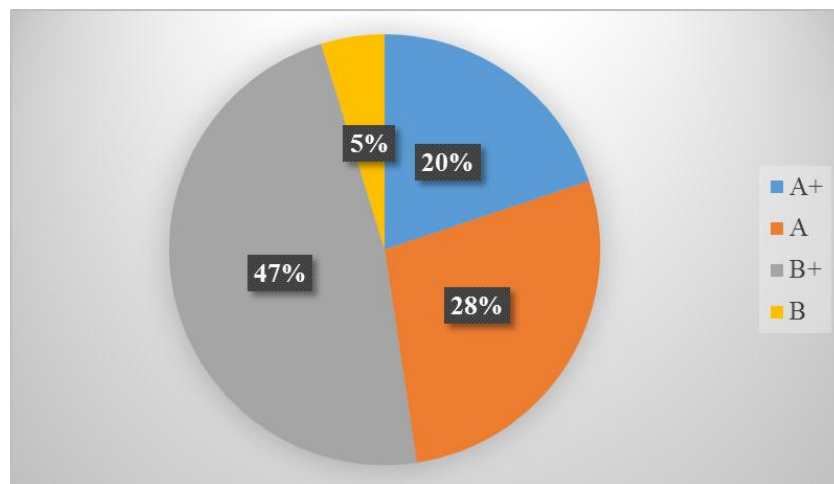


Figure 7. Recorder playing results.

Exploring the behaviour of gifted students learning music recorder

Based on the observation of students' musical behaviour in the classroom, researchers found that in the first 20 minutes of students were learning individually, each focused on the score provided. After 20 minutes, students began communicating with friends, asking about the name of the note on the score, and reviewing the recorder playing based on the score. Later, students were found to be interacting with friends and

practicing recorders together. The results of the group interview found that the students said that these songs are not difficult to play. They just need more time to master the whole song. The way to practice playing the song was to write the name of the note on the score, aligned each note with the fingering, practiced fingers so that it is soft and easy. Students explained that the way to master recorder playing was to play notes for one stanza first, then moved on to another stanza. Students were also advised to practice fingering on difficult notes such as A to E repeatedly. Students also stated that this discovery inquiry method provides them time to practice and explore song notes in their own way.

The result indicates that the learning of recorder is more effective using discovery inquiry methods among gifted and talented students. The results show that none of the students failed or got unsatisfactory results. On the other hand, students who obtained the least grade is B. Researchers found that gifted students are more interested and compatible with self-learning methods that offer them the opportunity to explore knowledge in their own way in line with the recommendations of Shore et al., (2019). The role of the teacher is as a facilitator to monitor learning such as providing learning materials, answering student confusion, and ensuring learning outcomes are completed on time. Although the inquiry based learning method emphasize a student centered learning, a teacher is still need to facilitate students to avoid distructive manners among students. A personal mentoring session with students is recommended as shown in *Figure 8*.



Figure 8. Personal mentoring session.

Although gifted and talented students possess extraordinary intellectual privileges, but in terms of recorder playing, they need to be exposed from the basics according to their skill level. This means that gifted and talented students should not be given a difficult song score that is beyond their level of knowledge with a short learning period of time. It will make students depressed and lose interest in digging the knowledge within music subject. Researchers also found that no more complaints were heard from students about the difficulty of playing the recorder, or no time to practice. Instead, students enjoyed being given the opportunity and freedom to learn and practice in their own way. A freedom to explore knowledge, create own solutions, and solving problems

are the boost factors to develop gifted divergent thinking and creativity (Ismail et al., 2020).

Conclusion

The researchers found that music subject is exceedingly relevant for the inquiry based learning method in the context of this study. This is driven by Dalcroze's music theory which says that music is a natural feature found in every child (Anuar and Ismail, 2021; Md Jais, 2017). Based on the results of the study, it has been proven that the discovery inquiry method could improve the skills and performance of students through the exploration of recorder playing skills based on scores independently. This enriches the effectiveness of the inquiry method of the findings of previous studies where this method is not only effective in Science, Mathematics, and History subjects but also effective in Music Education especially on recorder playing (Hariani, 2019; Mahalingam and Hamzah, 2016; Nik Zarini and Salmiza, 2012). The method of learning recorders by inquiry of these findings is expected to support gifted and talented education system in Malaysia to polish and unearth the potential of gifted children with extraordinary talents. Without educational programs designed specifically for gifted and talented students in schools, especially from the less fortunate, there is no opportunity to get the support, assistance and educational adaptation needed for their optimal development. Researchers suggest further research using other learning methods that can meet the needs of gifted students as well as music curriculum specific to gifted education. Researchers also suggest a study of the effectiveness of music to overcome the emotional and psychological problems of gifted students.

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Conflict of interest

There are no conflict of interest involve with any parties in this research study.

REFERENCES

- [1] Abdul Rahman, A.M. (2007): Guru sebagai penyelidik. – PTS Professional 122p.
- [2] Alias, A., Sharif, N.M., Baharuddin, N.F., Hamzah, M.H.M., Zahari, F. (2016): Penerokaan kesan pengajaran dan pembelajaran menggunakan visual imej dalam kalangan murid cacat pendengaran. – Jurnal Komunikasi: Malaysian Journal of Communication 32(1): 335-350.
- [3] ANUAR, A.F., ISMAIL, M.J. (2021): INFUSING DALCROZE EURHYTHMICS IN IMPROVING SINGING SKILLS AMONG PRIMARY SCHOOL STUDENTS. – Quantum Journal of Social Sciences and Humanities 2(1): 24-38.
- [4] ANUAR, A.F., PARAMASIVAM, S., ISMAIL, M. J. (2020): MALAY-ENGLISH CODE-MIXING INSERTION: WHY 'LEPAKING' IN PREFERENCE TO 'HANGING OUT'? – Quantum Journal of Social Sciences and Humanities 1(5): 69-84.

- [5] Cairns, D., Areepattamannil, S. (2019): Exploring the relations of inquiry-based teaching to science achievement and dispositions in 54 countries. – *Research in Science Education* 49(1): 1-23.
- [6] Dellatola, E., Daradoumis, T., Dimitriadis, Y. (2020): Exploring Students' Engagement Within a Collaborative Inquiry-Based Language Learning Activity in a Blended Environment. – In *Emerging Technologies and Pedagogies in the Curriculum*, Springer, Singapore 20p.
- [7] Frey, J.H., Fontana, A. (1991): The group interview in social research. – *The Social Science Journal* 28(2): 175-187.
- [8] Gay, G. (2018): *Culturally responsive teaching: Theory, research, and practice*. – Teachers College Press 320p.
- [9] Hariani, N.M.M. (2019): Meningkatkan Hasil Belajar Siswa Pada Mata Muridan Sains Melalui Metode Inkuiri Terbimbing Di Kelas Vi Sd Inpres 1 Tanamodindi Palu. – *Widya Genitri: Jurnal Ilmiah Pendidikan, Agama dan Kebudayaan Hindu* 10(1): 26-35.
- [10] Ismail, M.J., Chiat, L.F., Anuar, A.F. (2021): LEARNING MUSIC THROUGH RHYTHMIC MOVEMENTS IN MALAYSIA. – *Malaysian Journal of Learning and Instruction* 18(1): 241-263.
- [11] Ismail, M.J., Anuar, A.F. (2020): The significance of music to gifted students. – *Quantum Journal of Social Sciences and Humanities* 1(4): 33-43.
- [12] ISMAIL, M.J., ANUAR, A.F., KAMIS, M.S. (2020): DIVERGENT THINKING IN MUSICALLY GIFTED PRACTICES: A REVIEW. – *Quantum Journal of Social Sciences and Humanities* 1(5): 13-26.
- [13] Ismail, M.J., Loo, F.C. (2018): Method of using Eurhythmics Dalcroze approach to increase the coordination of singing and playing kompang percussion among children. – *Malaysian Journal of Social Sciences and Humanities* 3(4): 119-128.
- [14] Kamis, M.S., Alias, M.N., Ishak, N.M., Ismail, M.J. (2019): The characteristics of the cognitively gifted learners: Guidelines for Malaysian teachers in teaching language. – *International Journal of Education* 4(29): 46-52.
- [15] Lisah, B.C.V.F. (2011): Refleksi Pembelajaran Tentang Teknik Menganalisis Data Dalam Pelaksanaan Penyelidikan Tindakan Bertajuk "Penggunaan Combo Set Dalam Membantu Murid Tahun Tiga Menjawab Soalan Long Division". – *Jurnal Penyelidikan Tindakan IPG KBL* 5: 1-15.
- [16] Lv, B., Lv, L., Wang, P., Luo, L. (2019): A person-centered investigation of math motivation and its correlates to math achievement in elementary students. – *Journal of Pacific Rim Psychology* 13: 1-7.
- [17] Mahalingam, S.S., Hamzah, M.I.B. (2016): Penggunaan Kaedah Inkuiri Penemuan dalam Kalangan Guru-Guru Sejarah Sekolah Menengah. – *Proceedings of the ICECRS* 1(1): 1-12.
- [18] Md Jais, I., Azu Farhana, A., Rorlinda, Y. (2020): Exploring giftedness: traits of cognitive and practical skills of a gifted child. – *International Journal of Education, Psychology and Counseling* 5(34): 189-196.
- [19] Md Jais, B.I., Rorlinda, Y., Loo, F.C. (2018a): Proper Musical Activities During Music Instructional Process for Gifted and Talented Students in Malaysia. – *Malaysian Journal of Social Sciences and Humanities (MJSSH)* 3(5): 30-40.
- [20] Md Jais, B.I., Loo, F.C., Rorlinda, Y., Mohd Sham, B.K. (2018b): Comparison of Dalcroze Eurhythmics teaching approach with conventional approach to enhance kompang playing skills among malaysian children. – *SSRG International Journal of Humanities and Social Science (SSRG-IJHSS)* 5(6): 64-69.
- [21] Md Jais, B.I. (2017): The effectiveness of dalcroze music approach in enhancing musical coordination skill among year 4 students in urban area. – *Malaysian Journal of Social Sciences and Humanities (MJSSH)* 2(1): 54-65.

- [22] Nik Zarini, N.K., Salmiza, S. (2012): Kesan Pendekatan Inkuiri Penemuan Terhadap Pencapaian Murid Dalam Mata Muridan Kimia. – *Journal of Educators & Education/Jurnal Pendidik dan Pendidikan* 27: 159-174.
- [23] Olcay-Gul, S., Vuran, S. (2019): Effectiveness of Teaching Social Skills to Individuals with Autism Spectrum Disorders Using Cool versus Not Cool. – *Education and Training in Autism and Developmental Disabilities* 54(2): 132-146.
- [24] Renzulli, J.S. (2000): The identification and development of giftedness as a paradigm for school reform. – *Journal of Science Education and Technology* 9(2): 95-114.
- [25] Sayi, A.K., Icen, M. (2019): Examining the Relationship Between Parental Attitudes and the Study Habits of Gifted Children. – *Journal of Progressive Education* 15(6): 17-32.
- [26] Shore, B.M., Chichekian, T., Gyles, P.D., Walker, C.L. (2019): Friendships of gifted children and youth: Updated insights and understanding. – *The SAGE handbook of gifted and talented education* 11p.
- [27] Silm, G., Tiitsaar, K., Pedaste, M., Zacharia, Z.C., Papaevripidou, M. (2017): Teachers' Readiness to Use Inquiry-Based Learning: An Investigation of Teachers' Sense of Efficacy and Attitudes toward Inquiry-Based Learning. – *Science Education International* 28(4): 315-325.
- [28] Stronge, J.H. (2018): Qualities of effective teachers. – ASCD 348p.
- [29] Siti, N.K.R., Norraliza, N., Norhasyimah, H., Arishasnida, A., Tamil Selvan, S. (2018): Penggunaan Kaedah Inkuiri Penemuan Terhadap Minat Murid Dalam Eksperimen Sains Tahun 5. – *Online Journal for TVET Practioners*. Available on: <https://publisher.uthm.edu.my/ojs/index.php/oj-tp/article/view/4810>
- [30] Teig, N., Scherer, R., Nilsen, T. (2018): More isn't always better: The curvilinear relationship between inquiry-based teaching and student achievement in science. – *Learning and Instruction* 56: 20-29.
- [31] Tidwell, R. (1980): A psycho-educational profile of 1,593 gifted high school students. – *Gifted Child Quarterly* 24(2): 63-68.
- [32] Tolar, E. (2016): The Allure of Music: Implications for Academically Gifted Students. – *Scholarly and Creative Work DePauw University* 56p.
- [33] Zahidi, A.M., Ong, S.Y., Yusof, R., Kanapathy, S., Ismail, M.J., You, H.W. (2021): Effect of science camp for enhancing STEM skills of gifted young scientists. – *Journal for the Education of Gifted Young Scientists* 9(1): 15-26
- [34] Zakharova, I.M., Oleinik, N.S., Grakhova, S.I., Khakimova, N.G., Mukhametshin, A.G. (2018): Specifics of Self-Regulation in Gifted Adolescents. – *Journal of Pharmaceutical Sciences and Research* 10(7): 1734-1738.
- [35] Zan, A.K.M. (2012): Kepimpinan Instruksional Guru Besar Dan Pencapaian Akademik Sekolah Di Daerah Petaling. – *Institut Kepimpinan Pendidikan, Universiti Malaya* 234p.