Pertanika J. Soc. Sci. & Hum. 29 (4): 2709 - 2728 (2021)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

'Music in Film' for Gifted Students: The Effect of Differentiated Learning on Students' Motivation

Md Jais Ismail[1]*, Loo Fung Chiat[2] and Azu Farhana Anuar[3]

[1]Department of Music Education, Faculty of Music, Universiti Teknologi MARA (UiTM), 40450 Shah Alam, Selangor, Malaysia
[2]Department of Music, Faculty of Human Ecology, Universiti Putra Malaysia, 43400 Serdang, Malaysia
[3]Student Development, Universiti Kuala Lumpur, MICET, 78000 Alor Gajah, Melaka, Malaysia

ABSTRACT

Music is not only an important subject in general education, but it particularly serves gifted students who face various psychological issues not encountered by their 'normal' peers. Nonetheless, it is found that not all schools are implementing proper music lessons due to the focus on STEM subjects. This paper provides an overview of developing music enrichment activities as an approach to meet gifted students' needs. Differentiated instruction was used as the main approach to developing a comprehensive music enrichment activity, namely 'Music in Film', in which gifted students integrated music and computer skills in completing a given task. Furthermore, a research survey was conducted involving 36 gifted students. The MUSIC Inventory was used to measure their motivation and engagement towards the activity to measure the methods. Five domains—empowerment, usefulness, success, interest and caring—were measured on a 6-point Likert scale. Results revealed that all five domains were rated from moderate to high by the gifted students with a minimum 4.5 mean. Although it can be concluded that this enrichment activity is apt and effective for implementation in gifted education, future studies could look at participants with different backgrounds and demographics. It is hoped that this paper will contribute to designing more enrichment activities with a differentiated instruction approach as gifted students possess high potential in various talents that need to be nurtured.

Keywords: Differentiated instruction, enrichment, gifted, music education, technology

ARTICLE INFO

Article history:
Received: 31 August 2021
Accepted: 04 October 2021
Published: 10 December 2021

DOI: https://doi.org/10.47836/pjssh.29.4.33

E-mail addresses:
mdjais@uitm.edu.my (Md Jais Ismail)
lfc@upm.edu.my (Loo Fung Chiat)
azu.farhana@unikl.edu.my (Azu Farhana Anuar)
* Corresponding author

ISSN: 0128-7702
e-ISSN: 2231-8534

INTRODUCTION

Enrichment experiences outspread, excavate, widen, or supplement an individual's knowledge (Hardman et al., 2017). Music and dance, information technology (ICT), mathematics, and languages are such enrichment courses that may be added to a gifted student's curriculum, which may strengthen or sharpen students' various skills and talents (Phillipson, 2007). Other examples of enrichment include experiences in which the students build sophisticated thinking skills, such as analysis, interpretation, synthesis, and evaluation, or have chances to master advanced concepts in a particular field. Some features of enrichment are viewed as types of acceleration. For example, a student whose enrichment involves fully pursuing mathematical concepts that are well beyond his or her present grade level is experiencing a form of acceleration. The two approaches are interrelated.

Enrichment could be the best way to serve gifted students. Eminent enrichment programmes are determined by cautiously designed activities, modules, or books, are challenging but not packed with assignments, and use rigorous yet reasonable assessments (Alabdullatif, 2020; Kamis et al., 2021). Additionally, good enrichment programmes focus on students' considerate and thorough plans and appealing activities that stress high-order thinking and practical skills. The close Assistive Technology type, 'The Renzulli Learning Enrichment Differentiation', shows how a particular database can deliver modified learning options for gifted students (Hardman et al., 2017). Renzulli's work is appropriate as he highlights how the behaviour of gifted individuals contrasts with that of the non-gifted. That is a realisation that has clear and important implications in the field of gifted education.

Enrichment comprises activities, such as exploring thrilling topics not normally included in the general curriculum, group-centred activities that concentrate on mental or affective skills and processes, and small-group studies of actual-life problems (Golle et al., 2018; Wu, 2013). The keys to these activities are high student interest, outstanding teaching, and meaningful mentoring. In the process of teaching gifted students, there are some strategies that teachers may implement to heighten students' interest towards the class activity: active learning; opportunities for choice and flexibility; asking unexpected questions; giving children responsibility for planning and decision-making; opportunities for humour; lateral thinking; and offering new learning experiences (Cathcart, 2020). Additionally, learning materials strengthen students' understanding of a topic as they can significantly increase students' achievement by supporting their learning. This allows the students to explore knowledge independently as well as providing repetition. Learning materials, regardless of form, have their special functions to enrich teaching, occupy students in multi-dimensional learning, and develop students' skills in applying their knowledge (Elliott & Corrie, 2015). Thus, according to Tomlinson and Masuhara

(2017), some factors should be taken into consideration to select proper learning material in conducting a course, which are

- Materials may encourage students to exploit higher-order thinking skills and to become up-to-date learners, to practise freedom of thought and to make independent decisions through evaluation of pertinent information, evidence, and differing perspectives.
- Materials that inspire the development of observation and awareness.
- Materials that are related to precise talent areas.
- Materials that encourage learners to utilize their creative skills.
- Materials that provoke thought about specific concepts and ideas
- Materials that motivate students to reflect on their manners and behaviours and understand their responsibilities, duties, moralities, and rights as contributing citizens in a diverse society.
- Materials that are varied with respect to stages of difficulty, reading level, and which present a variety of information.

Music is found to be important for gifted students. Previous studies proposed that gifted students be exposed to music to strengthen their skills, foster creativity, sharpen talents and bring many other benefits (Md Jais et al., 2018; Tolar, 2016). Gifted education has been introduced in Malaysia since 2009 under the governance of Universiti Kebangsaan Malaysia (Md Jais et al., 2021). The gifted education programme will soon be expanded to national secondary schools under the Ministry of Education, according to Iktisas Circular Letter No. 3 2021 *(Pekeliling Iktisas Bil.3/2021).* Recognising that this is also driven by the online education prevalent nowadays, researchers feel there is a need for music studies integrated with technology to meet the educational needs of gifted students.

Furthermore, as music has emotional and psychological effects on individuals, it heightens the characteristics of self-actualisation and the personality of a gifted individual (Piragasam et al., 2013). Nonetheless, it is found that most schools are focussing on STEM activities and have marginalised music (Brewin, 2016; Pepper, 2019). It is an unfortunate consequence for gifted students to feel and express the allure of music. Those who are only musically talented have a limited time to explore music and sharpen their skills. The implications of these problems have caused discrimination against gifted students, especially those who are musically gifted, through the limitation of students' creativity, lack of fun experiences, and coordination of body movements. Realizing these issues, we reviewed related literature and developed music enrichment activities specifically for gifted students that may guide teachers to conduct an enrichment activity in school. The objectives of this study include i) identifying the effectiveness of differentiated learning towards gifted

students' motivation and ii) recommending the activity of 'Music in Film' as a suitable enrichment activity for gifted students.

Differentiated Instruction for Gifted Students

A popular teaching approach in gifted education is the use of differentiated instruction (Lee, 2018). This trend is indicated by numerous articles and reports on the subject in various journals, courses dealing with gifted educators and educational administrators, and using this method in the standard gifted curriculum series in Malaysia. It was found that differentiated instruction has become a crucial but complex teaching strategy that many teachers have not mastered and feel unprepared (van Geel et al., 2019). Thus, teachers need to be equipped with skills through professional courses and experience of differentiated instruction, especially in gifted education courses (Md Jais et al., 2018). As music is one of the arts subjects taught to gifted students, differentiated instruction becomes a unique teaching approach that triggers music teachers to be creative in the students' learning environment. In other words, differentiated instruction replaces the traditional method of "one size fits all", as explained by Sophia (2019).

Students in a class vary in culture, socioeconomic background, gender, family background, home environment, and skills. By considering every student's ability, teachers need to develop personalized instruction so that all students can master a topic effectively. Gifted students, like other children, need space and time to understand a topic and further develop their skills to the highest level (Ismail et al., 2021). Through differentiated instruction, students may learn within their diverse classroom community of learners to acquire content and process and relate ideas in their ways. This method is also believed to meet the gifted students' readiness level, interests, and learning profiles. Although class learning has been differentiated, this does not mean that students are separated or neglected. On the contrary, it is a method where every student works at their own pace, and the learning process is simultaneously executed. Sargent (2017) emphasised that differentiated instruction is not separating the less able and more able children. Instead, the process allows students to optimise their abilities and further meet a learning target. As a result, every student has a chance to be successful in their field as they may focus on the area that they are interested in. To enable this, teachers should give tasks that sharpen students' talents and set different expectations based on the students' abilities.

As in other fields, there are four ways to form differentiated instruction in music, by differentiating content, process, product, and learning environment (Tomlinson, 2017). Differentiation displays the music strength among learners, how they learn, learning preferences, and individual interests (Kamarulzaman et al., 2017). Therefore, differentiation includes systematic processes whilst offering a platform of practical, flexible teaching and learning approaches to cater to each child's learning needs and strengths to reach their maximum potential

as a learner. Assessment through pre-test and post-test is important to comprehend how gifted students learn music and their musicality level. Students could be provided with a lesson rubric so that they may strive to achieve their own goals and decide the grade they require (Winebrenner, 2020). It offers an overview for both teacher and student, with the best target of developing students' skills. The method of traditional instruction practices commonly used is a "one size fits all" approach in which students are unfairly evaluated. In contrast, differentiation is more student-centred, focusing on instructional and evaluation tools that are fair, adaptable, challenging, and which attract students to take part in understanding the curriculum.

Differentiated Music Contents

Common differentiated music instruction is through adapted content in which the lesson content is differentiated based on what students know. The most essential lesson content should cover the levels of learning set by the educational institution. Students have diverse experiences of music lessons. For example, some students are unfamiliar with music concepts, misunderstanding the ideas and missing some points, while there are students who have already mastered the initial stages. In music lessons, teachers differentiate the content by planning musical activities for students which cover different levels of Bloom's Taxonomy. Hanna (2007) explained that Bloom's taxonomy is a tool to translate music education outcomes into objective educational criteria. It is relevant to music education as it nurtures creativity as the most complex of cognitive processes, which has constructive effects in music education fields. Thus, the objectives of a music lesson may comprise the elements of cognitive domains, as shown in Figure 1.

In the process, teachers may modify what is essential for students or how students can dig into the concept and further obtain tacit knowledge and skills. At this stage, teachers are not lowering students' performance

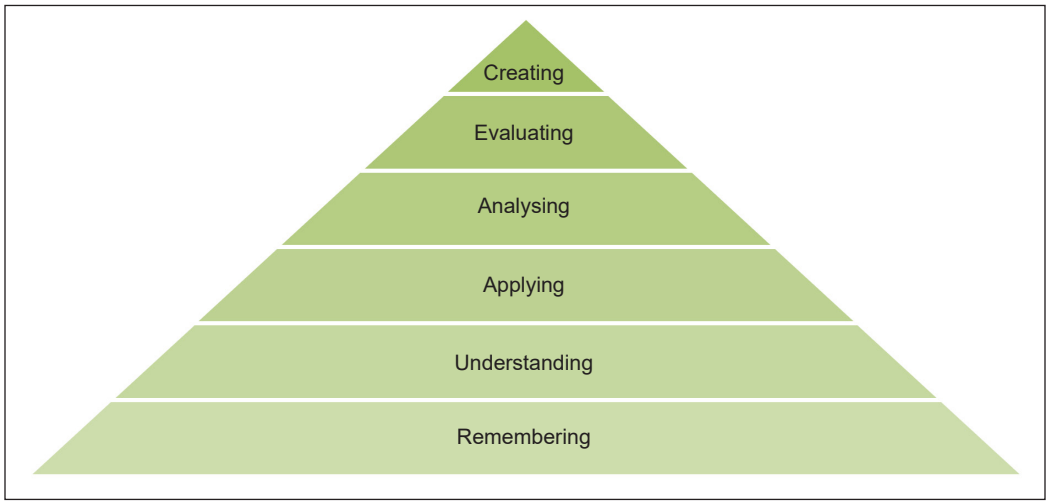

Figure 1. Bloom's taxonomy

levels or violating lesson objectives. They use different songs, instruments, or short music scores for each individual or student in a music class. Teachers can use flexible groups and divide them into groups and then watch a music video or search for required sources on the internet. Students should be allowed to choose how they want to work, whether in pairs, groups, or individually. Like other subjects, music content can be mastered by exploring ideas, concepts, information, and facts. It can be adjusted through acceleration, compacting, variety, restructuring, flexible pacing, and the use of more advanced concepts, tasks, and materials. At the first stage, students should be allowed to explore the music contents or skills at their own pace. Once they master a certain skill, it is believed that the entire music skills or contents which are introduced to students could be completed in much less time than by the traditional method (VanTassel-Baska, 1989).

Differentiated Music Process

Differentiated process refers to the activities designed to allow application and practice of new skills and information involving reciprocity toward the enhancement of thinking skills dependent on prior knowledge (Glazewski & Hmelo-Silver, 2019). Music teachers are recommended to integrate multiple teaching strategies to allow students to have various ways to process new information or practise new skills. For example, supposed students are grouped for a specific purpose or are allowed to choose the most appealing task. In that case, they can process the new information or practise the new skill in a way that matches their skill level, interests, or preferred learning style. Music activities must be reorganised to be more rationally challenging to differentiate processes, such as using tiered activities to create a music video using various apps and different times according to students' ability. It is related to Standerfer (2011), in which students with kinaesthetic ability were given a task to spell music words with their bodies, visually oriented students used a computer to study treble clef notes, and the more creative students used keyboards to compose songs.

Regarding this matter, students need to be challenged by musical reactions of body movements that entail a quick and demanding response or by open-ended questions that encourage discovery, active learning, exploration, and inquiry. The goal of a differentiated process is to inspire students to think about music in a more abstract way beyond conventional practice. Jones et al. (2017) found empowerment is a crucial factor for students to be engaged in class through student-centred activities. Additionally, musical activities should be based on students' interests and encourage self-directed learning. It is directed to ideas in Bloom's taxonomy in which the most common approach to the process is modification. The categorisation level of the cognitive system is arranged from the fundamentals of thought includes imitating and remembering, to more advanced levels of judging, evaluating, and creating. Solo and Dave taxonomies provide additional models for improving music skills and

understanding among students (Hook & Mills, 2012; Wesolowski & Payne, 2020). All music teachers should be creative in using various techniques to nurture and stimulate a higher level of thinking skills among gifted students. Group work and practical activities, flexible monitoring, and guided self-management are a few ideas for managing music class activities that support the process of differentiation.

Differentiated Music Product

The product is the outcome at the end of the lesson that demonstrates the understanding of the topic through tests, projects, reports, or music performance. Based on students' abilities, music teachers may assign students to summarisation activities that develop mastery of a music concept (writing a music outline) or a method the student is interested in (music composition or performing music on instruments). The product is an essential part of the differentiated model which patently shows the readiness towards assessments answering the 'what' and 'how' of the effectiveness of instruction. When teachers modify a product or performance, they are enabling students in many ways to show what they have gained from the lesson. It is done by exhibiting the product through class presentations, digital boards or social media platforms. It is intended to let students demonstrate what they have learnt based on their music skills, interests, and strengths. Kazu and Issaku (2021) added that teachers might help gifted students display their mastery of certain concepts by using technology-based projects. By modifying the learning product, teachers allow students to establish the best understanding of a particular topic and learning objective. Jones et al. (2017) stated that learning products are achieved when students relate them to the real world.

Differentiated Music Learning Environment

Differentiating the musical learning environment for gifted learners is crucial because it enables the students to achieve optimal learning in a music topic. Differentiating the learning environment for gifted students covers activities beyond the four walls of a classroom, allows them to move at their own pace, and develops social and emotional awareness in facing the process. The learning environment incorporates the physical arrangement of a learning place and the way students utilise the space, including lighting and atmosphere. The teacher's role is to generate an environment that is encouraging, organised, and supportive for each student. The music learning environment should be flexible with various facilities, such as music instruments, gadgets, and technology, by which students can complete a task individually or in a group. It establishes a variety of strategies to engage in a flexible and dynamic music class. Effective strategies may mould students' perception towards learning for success (Jones et al., 2017). Teachers should be open to alternatives, so the learning environment helps students nurture their gifted traits and talents through interaction with the materials, partners,

group members, or whole class. Teachers play a role to support and developing a positive relationship with students so that they will feel cared for and grasp the values within the subject. Music educators may create a meaningful music activity by varying the learning environment; for example, students might be allowed to work in a music lab, computer lab or recital room. Students might also be given a choice to determine their preferred place to complete a specific music task. Ludovico and Mangione (2014) added that a music learning environment could be considered meaningful when adaptive technologies improve students' performance. It will eventually heighten students' interest and motivation (Jones et al., 2017). A conceptual framework was developed to indicate the implementation of differentiated learning related to this study, as shown in Figure 2.

METHODOLOGY

Research Design

A Survey Research was applied to determine the effectiveness of the music enrichment activity. According to Denscombe (2017), survey research is one of the Descriptive Research Designs that aims to collect data on a problem through a set of questionnaires, review of interview documentation, tests, or observation. The school survey, social survey, and public opinion research are models of survey research (Al-Zoubi & Al-Zoubi, 2019). In the present research, the high school survey model known as MUSIC Inventory was used to identify the effectiveness of an enrichment activity based on the domains of empowerment, usefulness, success, interest and caring. This survey was administered after researchers completed the intervention.

Participants

Respondents were selected through purposive sampling and consisted of 36 gifted secondary level students (18 girls, 18 boys) aged 15 years from Kolej GENIUS@ Pintar Negara, Malaysia. The students had passed the gifted screening tests, namely UKM1, UKM2, and UKM3. Students of this age were selected as they have skills

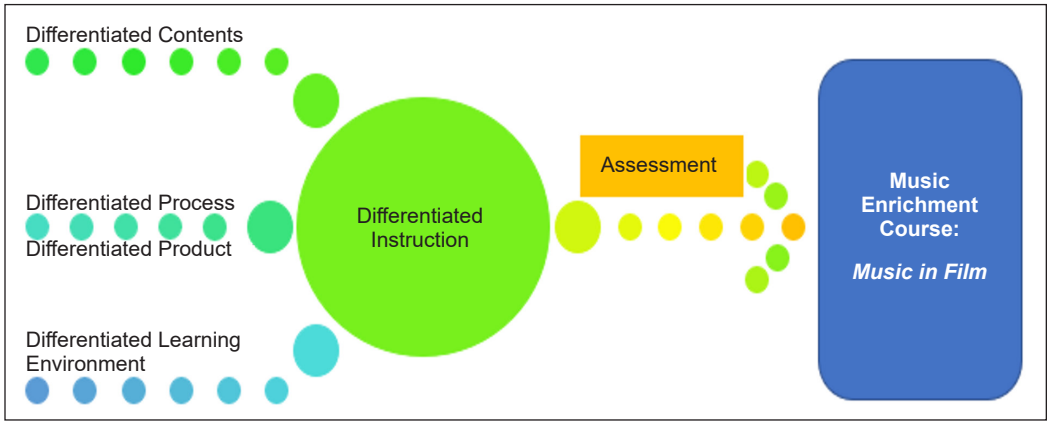

Figure 2. Conceptual framework of developing music course

of reasoning and scientific argumentation to be accommodated within the outlined activities (Balchin et al., 2013). In addition, there is a need to develop their skill at this level, so the activities were developed to enrich students' skills, including music, technology, language and interpersonal skills as portrayed in Multiple Intelligence Theory (Jignesh & Parul, 2020). The participants did not have any formal training in music technology, and the only music background they had was gained via the school music modules. The approach included one 40-minute music class per week with basic music theory, singing, dancing and playing musical instruments. The distribution of the respondents based on gender is shown in Table 1.

Table 1
Distribution of research sample

Gender	Frequency	Percentage (%)
Male	18	50
Female	18	50
Total	36	100

Survey

A survey was conducted using instruments based on the MUSIC Inventory adapted from Jones (2017). Permission to use this survey had been obtained. There are five domains in the inventory: empowerment, usefulness, success, interest, and caring. According to Jones (2017), the MUSIC Inventory is designed to assess the level at which high school students feel the presence of each MUSIC model domain in a learning process. It helps teachers to identify strengths and weaknesses based on factors related to student's engagement and motivation. Evidence of the instrument's validity shows a good value of Cronbach's alpha in which all the domains scored above .7 (empowerment α = .72; Usefulness α= .80; Success α = .84; Interest α = .77; Caring α = .85) conducted on fifth grade to seventh-grade students in science classes (Jones et al., 2017). A study by Parkes et al. (2017) with fifth grade to twelfth-grade students in music and band ensemble classes shows higher validity evidence of Cronbach's alpha (empowerment α =.73; Usefulness α= .86; Success α = .92; Interest α = .91; Caring α = .92) in which the fit indices of a confirmatory factor analysis is acceptable. The instrument uses a 6-point scale with 18 items. The subscale of the item's distribution is shown in Table 2. In determining the level of a mean score, a mean interpretation score for the 6-point scale survey, as Table 3, was developed.

Table 2
Distribution of item subscale

Domains	No. of item	Percentage (%)
Empowerment	4	22
Usefulness	3	17
Success	4	22
Interest	3	17
Caring	4	22
Total	18	100

Table 3
Mean score interpretation

Score	Interpretation
1.0 - 2.9	Low
3.0 – 4.9	Moderate
5.0 – 6.0	High

Procedure

This lesson plan was designed exclusively to provide a music enrichment activity for gifted students. A 6-hour music enrichment activity entitled 'Music In Film', was outlined encompassing the elements of differentiated instruction. The topic of 'Music in Film' was chosen since it considers recommendations from previous studies that found this topic is appropriate in meeting the needs of music education for gifted students (Burnette, 2013; Torkar et al., 2018; Zorman et al., 2018). Teachers could select a day to run this programme as enrichment for gifted students. There were six phases of lesson units, namely Phase 1 to Phase 6. This topic was chosen as it suited 21st-century music skill which integrates technology in music content. Students also had the opportunity to express their creativity through a digital platform consisting of current software and applications. This course was set during the usual music class time to avoid any complications in the schedule of the school and students. Two music lecturers developed a lesson plan of differentiated music instruction as in Table 4 in the field of music education. Activities were outlined by considering the Differentiated Model of Giftedness and Talent (DMGT) proposed by Gagné (2000).

During the process, we followed the lesson plan framework proposed by Cathcart (2020). In order to follow the framework, we answered four major questions, which are: 1. How am I generating a high level of interest in learning? 2. How am I developing the "tools of thought?" 3. How am I developing intellectual and creative potential? 4. How am I fostering emotional, social, and ethical growth? Therefore, we integrated some active learning activities, such as role-play, movie scenes comparison, debate, bookmaking, and film making. Students were able to choose from the lesson activities to complete various tasks. Lessons included were observation, communication, thinking, and organisation learning styles. Through this course, we encouraged new work, created an independent study, and provided support for the exceptionally able reader. Students were also given a chance to prepare themselves with knowledge and confidence to support ideas and respect others' opinions. This course also aimed to develop emotional awareness and understanding of others as a basis for emotional and social maturity throughout the process. The course outline was then checked and verified by an expert in the field of gifted education. Finally, an assessment rubric was prepared based on the recommendation by Cathcart (2020). The planning procedure also followed the guideline by The MUSIC Model Design Cycle recommended by Jones (2018), as in Figure 3.

Procedure Planning

Topic: Music in Film
Students' Age: 15 years old (Foundation 3 class)
Number: 36 students
Period: 6 hours

Objectives: At the end of the lesson, students can apply music techniques to create a film.

This lesson is important to students as it:

a. Develops creativity by making and choosing proper music and sound in film.
b. Challenges thinking skills by creating and matching sounds and actions in the film scene.
c. Inculcates cooperation among each group member.
d. Appreciates the ideas and aesthetics of music elements in the film.

Concepts:

a. Musical elements: Rhythm, melody, dynamics, harmony, texture
b. Music techniques: Orchestration, Diegetic and Non-diegetic, Syncing, Timing
c. Music moods

Assessment Rubric

In designing the assessment rubric, we followed the strategies of the five motivation domains recommended by Jones (2018). The strategies include providing choices during class, having students reflect on lesson goals, providing students with honest and specific feedback, designing activities with consideration of students' interests, and showing students that you care to achieve the lesson objectives. After considering all the domains strategies, we mapped it with the assessment rubric for

Table 4
Music enrichment activity lesson plan

Phase 1: Orientation (estimated time 30 minutes)**:**
1. Students are posed with questions:
-Why is music so important in film?
-Do you agree music contributes much impact in the film? Why?
-How do you determine the best musical usage in the film?
2. Students watch a short blockbuster movie scene (students may choose any movie), for example, video as https://youtu.be/udKE1ksKWDE. Students identify sounds and music elements in the scene.
2. Based on the previous reading material, students list music techniques used in the film scenes.
3. Students share their answers and make conclusions about music techniques used in the film scenes.
4. Students are divided into three groups; Group A, B, and C. Students may choose which group they want to join. Each group will explore three activities (Role-play, Compare Scenes, and Book Making) for three hours. The activities are designed based on Differentiated Learning Environment and Product approach. It can be implied as a rotation activity. The activities are scheduled as below.
1st-hour activity:
Group A: Role-play
Group B: Compare Scenes
Group C; Book Making
2nd-hour activity:
Group A: Compare Scenes
Group B: Book Making
Group C: Role-play
3rd-hour activity:
Group A: Book Making
Group B: Role-play
Group C: Compare Scenes

Table 4 (*continue*)

Phase 2 (estimated time 3 hours)	Role play Activity	Compare Scene Activity	Making Book Activity
Teacher facilitates all three groups. Teacher assists students who need help.	1. Students will have to act and insert live sounds in this activity. 2. Students plan their storylines first. 3. Some students act, and some will make live sounds to accompany the action. Students may use any musical instruments, audio, and voice. 4. Students present their role-play in front of the class.	1. Students watch two movie scenes provided for them. 2. Students analyse music techniques that are used in both films and compare them. 3. Students list the strength of each film from the aspect of music techniques. 4. Students share their findings in the group and paste the findings on the wall.	1. Students read and find information in books, articles, and the internet source provided for them. 2. Students must find info about what music techniques are used in filmmaking and how to use them. 3. Students must collect notes and make a scrapbook. 4. Students present and submit their scrapbooks to the teacher.

Phase 3 (30 minutes):
These activities are designated by applying the Differentiated Content approach.

1. Students are divided into three debate groups: Modified Group, Extended Group 1, and Extended Group
2. There are two teams in each group which are proponent and opponent.
3. Students may choose the topic to be debated from those below:
    i. Diegetic and Timing are the most basic techniques in film.
    ii. Sync or Orchestration is the most important music technique in film.
    iii. Rhythm and melody could strengthen music in film.
4. The proponent team has to propose and defend the topic given while the opponent has to oppose the topic by emphasising other techniques as more important and justify the answer.
5. Students come up with a consensus on music techniques that are important in making a film.

*Note: Those who do not join as proponents or opponents may become the audience and decide the winning team.

Phase 4 (estimated time 1 hour 45 minutes**):**
These activities are designated by applying the Differentiated Process approach.

1. Students are given a task to create a 10-minute short film scene. Students are provided with a rubric alongside completing the task.
2. Students must insert music or sounds in the film using technology. Students may use software, such as MovieMaker, VideoEditor, or Adobe Creative Cloud.
3. Students are given a choice to work in a group, pair or individually. Students may use any materials, such as musical instruments, audio files, laptops, cameras, handphones, iPad, wood, paper, etc., to create sounds.
4. Students broadcast their film in the class.

Phase 5: Conclusion (15 minutes)	**Phase 6: Evaluation**
1. Students complete their video making and evaluate their product based on the rubric provided. 2. Students submit their video (film and music) and broadcast it on the students' portal.	1. Teacher uses a survey or reflection form to evaluate the lesson. 2. Teacher uses the assessment rubric prepared by the teacher and students to evaluate students' achievement.

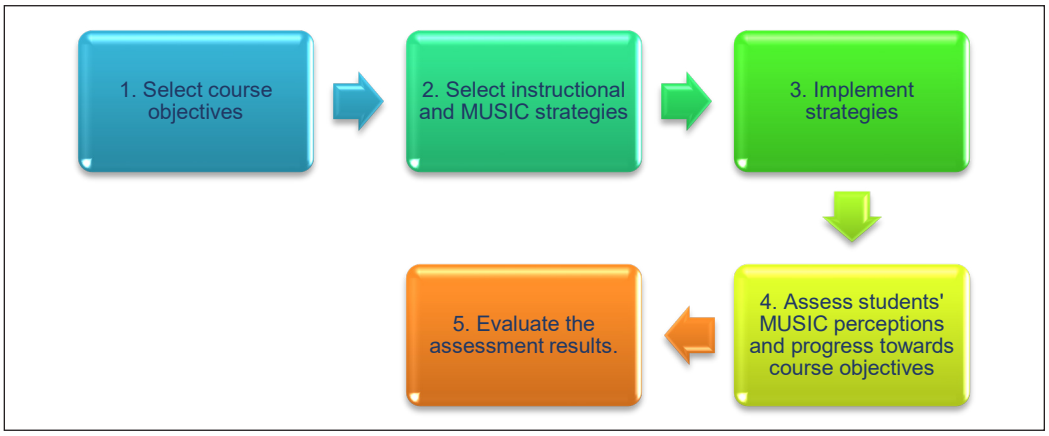

Figure 3. The MUSIC model design cycle (Jones, 2018)

gifted students proposed by Catchart (2020). According to Catchart (2020), the effective feedback of assessment for gifted students is through a collective statement that provides information and constructive comments to improve learning. The grading system and marks are not sufficient to portray what the students have done and reflect their learning. Hence, a rubric is recommended to be an appropriate approach to assess what had been learnt by gifted students. Students are given a chance to revise the rubric and discuss the criteria with the teacher. The recommended rubric is as follows:

Level 1: (Lowest Level). The student knows that music is important in a film. It is unsure about which techniques can be used to suit the action or situation in a film. Accepts that various music techniques may help to improve a film line. However, it is vague about music elements in the film and techniques to insert proper sounds.

Level 2. The student knows music is important in a film. Can specify some major music techniques used in the film. Accepts that various music techniques may help to improve a film line and understands how to apply the techniques. Recognised musical elements in the film, such as rhythm, melody, and dynamic. Has heard or watched about the making of the film by inserting quality music or sound in the film.

Level 3. The student knows music is important in a film. Can specify some major music techniques used in the film. Has some knowledge of the research behind this. Accepts that various music techniques may help to improve a film line and understands how to apply the techniques. Strong recognition of musical elements in the film, such as rhythm, melody, and dynamics. Has views on impactful music in the film. Has views on/puts forward ideas for the right techniques to be matched with action in the film. Knows about/discusses the strength or weakness of music/sound quality in film. Recommends some improvements for the film to make it more interesting.

RESULTS AND DISCUSSION

With the high records in all motivation domains, this revealed that the present enrichment activity has the potential to be included in the gifted programme. Based on Figure 4, it was found that students scored more than 4.5 mean values for each domain. Boys were slightly higher in Usefulness (M=4.80) and Caring (M=5.64), while girls scored slightly higher in empowerment (M=5.25), Success (M=4.94), and Interest (M=5.56). Based on Figure 5, gifted students overall scored high in five domains of the MUSIC Inventory, in which the highest scores are caring (M=5.5) and interest (M=5.39). One possible reason may be that these students were motivated when teachers treated them well along the learning process and therefore heightened interest in engaging with the activity.

To examine if there are any significance differences between female and male for the five domains, an independent T-test was employed. According to Table 5, there

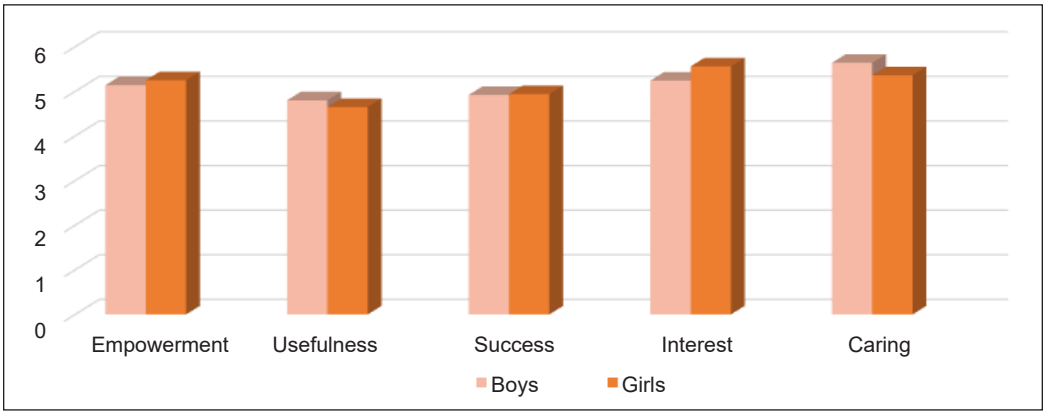

Figure 4. Mean score of the effectiveness of music enrichment activity based on gender

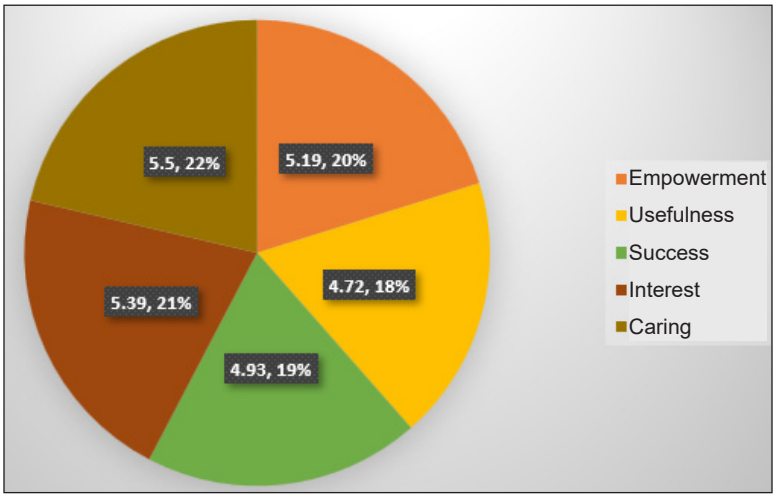

Figure 5. Mean score of the effectiveness of music enrichment activity among gifted students

Table 5
Results of independent t-test

Motivation domains	Gender	N	Mean	t	df	95% Confidence interval of the difference		Sig. (2-tailed)
						Lower	Upper	
Empowerment	Male	18	5.14	-0.52	34	-0.54	0.32	0.60
	Female	18	5.25					
Usefulness	Male	18	4.79	0.59	34	-0.36	0.66	0.56
	Female	18	4.65					
Success	Male	18	4.92	-0.09	34	-0.61	0.55	0.92
	Female	18	4.94					
Interest	Male	18	5.24	-1.39	34	-0.77	0.14	0.17
	Female	18	5.56					
Caring	Male	18	5.64	1.51	34	-0.09	0.65	0.14
	Female	18	5.36					

is no significant difference between male and female in all domain; empowerment (t(34)= 0.52, p=0.6, Cl [-0.54, 0.32]), usefulness (t(34)= 0.59, p=0.56, Cl [-0.36, 0.66]), success (t(34)= 0.09, p=0.92, Cl [-0.61, 0.55]), interest (t(34)= 1.39, p=0.17, Cl [-0.77, 0.14]), and caring (t(34)= 1.51, p=0.14, Cl [-0.09, 0.65]).

Overall, students' mean scores are high in empowerment, interest, and caring domains. It reveals that students believed this enrichment activity empowered them to learn music, heightened their interest and sense of teachers' caring and concern while doing the activity. It aligns with Catchart's (2020) statement that activities with various strategies, such as active learning, observations, opportunities for choice and flexibility, and offering new learning experiences as outlined in the lesson are truly effective, especially to attract gifted students' attention. In the lesson, students were given chances to own the learning process, have choices and communicate in a group to solve the task. These are the factors that may empower students to master the skills, as explained by Hoover (2018). It is also due to a student-centred approach in which every student was given a chance to learn at their own pace with guidance from the teacher to assist those who were struggling during the lesson.

In addition, students scored moderate levels for usefulness and success. It means the students still believed that this activity was useful and practical for them as well as able to contribute to their success. It is in line with the research of Md Jais et al. (2018) and Piragasam et al. (2013), in which music is useful for gifted students to sharpen their talents and accommodate emotional problems. 'Music in Film' enrichment activities truly attracted the interest of gifted students' as they are interested to explore new things especially in the field of technology (Mann, 1994). As many gifted students are facing asynchronous development, it is crucial to expose the

students to music activities and to enrich their various skills. Through this, gifted students may heighten their potential, manage their emotion quotient, and further realise their abilities and strengths. A rubric reference provided for students shows that teachers are concerned with students' ability and seek improvement. Students may also use the rubric as a benchmark of their skill and try to fulfil the requirement and achieve the highest level as they can, as proposed by Winebrenner (2020).

The results indicate the potential of 'Music in Film' as an enrichment activity for gifted students. The data suggest 'Music in Film' can be implemented for gifted students as respondents believed the lesson contents were useful for them and tended to make them successful. It is also related to the teaching methods embedded in the lesson consisting of differentiated learning styles, which encouraged the respondents to feel the lesson was engaging, in fact challenging and fulfilling their educational needs. The researchers believe that when gifted students enjoy actively participating in a lesson, this will sharpen their skills, especially when utilising technology tools, as outlined in the lesson plan. It correlates with Elliott and Corrie's (2015) opinion that learning materials, regardless of form, have special functions to enrich teaching, occupy students in multi-dimensional learning, and develop students' skills to apply their knowledge. The process allows students to optimise their abilities and further meet learning targets (Sargent, 2017).

The researchers attempted to uphold music to a high standard through this study when integrating technology and music. As music has normally been taught physically and practically (Ismail et al., 2021; Md Jais et al., 2020), this enrichment activity opens a new paradigm to explore music through technology and offer new learning experiences. The researchers believe the product of the present study will serve gifted students in three fields, including computing skills, music skills, and comprehending the element of creative arts. As a result, music as a subject will not be marginalised; it will become an important subject and an enrichment activity in school. It is also a great chance for gifted students to explore music in their way and widen their creativity.

CONCLUSION

Music is a subject that may fulfil gifted students' needs. Maslow's theory of human needs emphasises music as part of the highest need of self-actualisation, which an individual feels at the peak of his or her ability (Piragasam et al., 2013). As gifted students face asynchronous development where their chronological age is not matched with their mental age, as mentioned by Md Jais et al. (2021), music becomes an intervention to stabilise their emotions and further reduce psychological issues among gifted students. A music enrichment activity is one of the examples that might be effective in overcoming gifted students' psychological issues, enriching their skills and nurturing giftedness traits to make a successful gifted student. The present

research indicates the potential effectiveness of music enrichment activity to empower gifted students, make the learning useful for their future, help them succeed, enhance their interest in a specific topic, and realise the presence of teachers' caring during the lesson.

Additionally, the 'Music in Film' topic is found to be a reliable enrichment. Thus, to develop an effective enrichment activity, a teacher should have a careful and thorough plan as gifted students are special in relation to their peers (Ali, 2001). Therefore, their abilities and talents should be nurtured and guided through such programmes to heighten their interest and focus on a topic. As a gifted education programme will be implemented in schools under the Ministry of Education, the findings from this study can be a guideline for the ministry to apply and practise 'Music in Film' as an enrichment activity for the gifted students. We also would like to recommend future studies related to the effectiveness of music activities and the usage of differentiated instruction in music for gifted students.

ACKNOWLEDGEMENT

The authors would like to thank Associate Professor Dr Rorlinda Yusof and Mr Mohd Hakimie from Pusat GENIUS@Pintar Negara for assisting in this study. Thank you to Professor Dr Brett D. Jones for permitting to use MUSIC Inventory instrument. This study is supported by Pembiayaan Yuran Penerbitan Artikel (PYPA), Universiti Teknologi MARA, Malaysia. There is no conflict of interest relevant to this work.

REFERENCES

Al-Zoubi, S. M., & Al-Zoubi, S. (2019). Prevalence of articulation errors among Jordanian gifted students with dyslexia. *Journal for the Education of Gifted Young Scientists, 8*(1), 533-548. https://doi.org/10.17478/jegys.682635

Alabdullatif, M. A. (2020). Enhancing Self-Regulated Learning (SRL) skills of gifted students through an enrichment program challenges and opportunities. *Journal for the Education of Gifted Young Scientists*, *8*(4), 1645-1663. https://doi.org/10.17478/jegys.833184

Ali, A. S. (2001). Issues involved in the evaluation of gifted programmes. *Gifted Education International, 16*(1), 79-91. https://doi.org/10.1177/026142940101600111

Balchin, T., Hymer, B., & Matthews, D. J. (2013). *The Routledge international companion to gifted education*. Routledge.

Brewin, K. (2016, December 9). The focus on maths and science doesn't add up. The arts must be in the equation. *The Guardian.* https://www.theguardian.com/commentisfree/2016/dec/09/maths-science-stem-subjects-england-schools

Burnette, D. F. (2013). *Casting minority gifted students: The pedagogical impact of cinema on the culture of schooling* [Doctoral dissertation, Georgia Southern University]. https://digitalcommons.georgiasouthern.edu/etd/63

Cathcart, R. (2020). *Understanding and working with gifted learners: They're not bringing my brain out.* Routledge. https://doi.org/10.4324/9781003009283

Denscombe, M. (2017). *The good research guide: For small-scale social research projects*. McGraw-Hill Education (UK).

Elliott, L., & Corrie, L. (2015). The GAVI approach to Learning and teaching materials in sub-Saharan Africa. Background paper prepared for the Education for All Global Monitoring

Report 2015. *Education for All 2000–2015*: *Achievements and Challenges.* https://unesdoc.unesco.org/ark:/48223/pf0000232481

Gagné, F. (2000). *A differentiated model of giftedness and talent (DMGT);* (ED448544). ERIC. https://files.eric.ed.gov/fulltext/ED448544.pdf

Glazewski, K. D., & Hmelo-Silver, C. E. (2019). Scaffolding and supporting use of information for ambitious learning practices. *Information and Learning Sciences, 120*(1), 39-58. https://doi.org/10.1108/ILS-08-2018-0087

Golle, J., Zettler, I., Rose, N., Trautwein, U., Hasselhorn, M., & Nagengast, B. (2018). Effectiveness of a "grass roots" statewide enrichment program for gifted elementary school children. *Journal of Research on Educational Effectiveness, 11*(3), 375-408. https://doi.org/10.1080/19345747.2017.1402396

Hanna, W. (2007). The new Bloom's taxonomy: Implications for music education. *Arts Education Policy Review, 108*(4), 7-16. https://doi.org/10.3200/AEPR.108.4.7-16

Hardman, M. L., Egan, M. W., & Drew, C. J. (2017). *Human exceptionality: School, community, and family*. Cengage Learning.

Hook, P., & Mills, J. (2012). *SOLO taxonomy: A guide for schools book 2: Planning for differentiation.* Essential Resources.

Hoover, T. (2018, April 9). *The qualities of an empowered music student.* Off the beaten path - A music teacher journey. https://offthebeatenpathinmusic.com/2018/04/09/empowered-music-student/

Ismail, M. J., Loo. F. C., & Anuar, A. F. (2021). Learning music through rhythmic movements in Malaysia. *Malaysian Journal of Learning and Instruction, 18*(1), 241-263. https://doi.org/10.32890/mjli2021.18.1.10

Jignesh, B. P., & Parul, G. (2020). A study of multiple intelligence of the students of standard IX in the context of different variables. *Purakala UGC CARE Journal, 31*(24), 36-47.

Jones, B. D. (2017). *User guide for assessing the components of the MUSIC® Model of Motivation.* https://www.themusicmodel.com/wp-content/uploads/2019/06/User-Guide-to-Assessing-the-MUSIC-Model-Components-December-2017-2.pdf

Jones, B. D. (2018). *Motivating students by design: Practical strategies for professors* (2nd ed.). CreateSpace.

Jones, B. D., Sahbaz, S., Schram, A. B., & Chittum, J. R. (2017). Using psychological constructs from the MUSIC Model of Motivation to predict students' science identification and career goals: Results from the U.S. and Iceland. *International Journal of Science Education, 39*(8),1089-1108. https://doi.org/10.1080/09500693.2017.1319093

Kamarulzaman, M., Azman, H., & Zahidi, A. (2017). Differentiated instruction strategies in English language teaching for gifted students. *Journal of Applied Environmental and Biological Sciences, 7*(1), 78-90.

Kamis, M. S., Ismail, M. J., Alias, M. N., Mikeng, D., Abidin, S. G. Z., & Yusof, R. (2021). CLIL approach in encouraging self-efficacy amongst Malaysian gifted students for Arabic tasks accomplishment. *Journal of Language and Linguistic Studies*, *17*(2), 1001-1012. https://doi.org/10.52462/jlls.69

Kazu, İ. Y., & Issaku, Y. (2021). The opinion of ELT students on technology-based classroom approach. *Focus on ELT Journal*, *3*(1), 33-42. https://doi.org/10.14744/felt.2021.00036

Lee, H. K. (2018). Differentiated instruction for gifted and talented students: Teaching gifted and talented students with diversity responsive education method. In J. Cannaday (Eds.), *Curriculum development for gifted education programs* (pp. 43-60). IGI Global. https://doi.org/10.4018/978-1-5225-3041-1.ch003

Ludovico, L., & Mangione, G. (2014). Teaching adaptively for music-smart opportunities emerging from the representation of score notation. *Journal of e-Learning and Knowledge Society, 10*(3), 51-69. https://doi.org/10.20368/1971-8829/957

Mann, C. (1994). New technologies and gifted education. *Roeper Review, 16*(3), 172-176. https://doi.org/10.1080/02783199409553567

Md Jais, I., Hawa, A. H., & Nurul, H. M. (2021). Meneroka tingkah laku unik pelajar pintar cerdas berbakat akademik [Exploring unique behavior of gifted students with academic talented]. *Malaysian Journal of Learning and Instruction*, *18*(2), 301-328. https://doi.org/10.32890/mjli2021.18.2.11

Md Jais, I., Loo, F. C., Azu Farhana, A., & Rorlinda, Y. (2020) Institutionalising the kompang for primary school students in Malaysia. *International Journal of Innovation, Creativity and Change, 13*(5), 295-292.

Md Jais, I., Rorlinda, Y., & Loo, F. C. (2018). Aktiviti muzikal yang sesuai dijalankan semasa proses pengajaran dan pembelajaran muzik murid-murid pintar dan berbakat di Malaysia [Proper musical activities for teaching and learning process among Malaysian gifted and talented students]. *Malaysian Journal of Social Sciences and Humanities*, *3*(5), 30-40.

Parkes, K., Jones, B. D., & Wilkins, J. (2017). Assessing music students' motivation using the MUSIC Model of Academic Motivation Inventory. *UPDATE: Applications of Research in Music Education, 35*(3), 16-22. https://doi.org/10.1177/8755123315620835

Pepper, J. (2019, September 27). *How music flows through the STEM curriculum.* Study International. https://www.studyinternational.com/news/music-education-flowing-stem-curriculum/

Phillipson, S. N. (2007). *Learning diversity in the Chinese classroom: Contexts and practice for students with special needs* (Vol. 1). Hong Kong University Press.

Piragasam, G. A., Rosadah, A. M., & Zalizan, M. J. (2013). Music appreciation and self-actualization of gifted students. *Procedia-Social and Behavioral Sciences, 90*, 124-132. https://doi.org/10.1016/j.sbspro.2013.07.073

Sargent, R. (2017, August 7). *Differentiated instruction in the music classroom.* Smartmusic. https://www.smartmusic.com/blog/differentiated-instruction-music-classroom/

Sophia. (2019, May 22). *How differentiated instruction challenges the notion of the traditional teacher.* Superprof. https://www.superprof.co.uk/blog/differentiated-instruction-challenges-traditional-teachers/

Standerfer, S. (2011). Differentiation in the music classroom. *Music Educators Journal, 97*(4), 43-47. https://doi.org/10.1177/0027432111404078

Tolar, E. (2016). *The allure of music: Implications for academically gifted students* [Doctoral dissertation, DePauw University]. https://scholarship.depauw.edu/studentresearch/56

Tomlinson, B., & Masuhara, H. (2017). *The complete guide to the theory and practice of materials development for language learning*. John Wiley & Sons.

Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms*. ASCD.

Torkar, G., Avsec, S., Čepič, M., Savec, V. F., & Juriševič, M. (2018). Science and technology education in Slovenian compulsory basic school: Possibilities for gifted education. *Roeper Review*, *40*(2), 139-150. https://doi.org/10.1080/02783193.2018.1434710

van Geel, M., Keuning, T., Frèrejean, J., Dolmans, D., van Merriënboer, J., & Visscher, A. J. (2019). Capturing the complexity of differentiated instruction. *School Effectiveness and School Improvement, 30*(1), 51-67. https://doi.org/10.1080/09243453.2018.1539013

VanTassel-Baska, J. (1989). Appropriate curriculum for gifted learners. *Educational Leadership*, *46*(6), 13-15.

Wesolowski, B. C., & Payne, P. (2020). Developing learning outcomes, assessment tasks, and scoring devices. In *Developing and Applying Assessments in the Music Classroom* (pp. 45-81). Routledge.

Winebrenner, S. (2020). *Teaching gifted kids in today's classroom: Strategies and techniques every teacher can use*. Free Spirit Publishing.

Wu, E. (2013). Enrichment and acceleration: Best practice for the gifted and talented. *Gifted Education Press Quarterly, 27*(2), 1-8.

Zorman, R., Nadler, M., Zeltser, P., & Bashan, Z. (2018). The national mentoring program in Israel: A model for developing leadership among highly gifted students. In B. Wallace, D. Sisk & J. Senior (Eds.), *The Sage Handbook of gifted and talented education* (pp. 343-356). SAGE Publications Ltd. http://doi.org/10.4135/9781526463074.n29