A Project entitled

A Case Study of Students with Intellectual Disabilities Experiencing Music with Grid Notation

Submitted by

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DECLARATION

I, *Wong Yat Yi* declare that this research report represents my own work under the supervision of *Title and Name of Project Supervisor*, and that it has not been submitted previously for examination to any tertiary institution.

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ABSTRACT

To study and describe the music experience of students with intellectual disabilities when they use Grid Notation, which is a newly developed notation system, a descriptive, multiple case study design is adopted as the focused method. Four subjects with intellectual disabilities who participated in the e-Orch course, offered by the Jockey Club Youth Academy for Special Educational Needs, are chosen for the study. Qualitative approach such as interview, lesson observation and homework analysis are conducted. A questionnaire is also constructed, but it is only acting as a preliminary understanding of the subjects while the qualitative approach remain the key focus.

Results showed that Grid Notation was accessible and enjoyable for the subjects, and all of them had gained some new experiences while using the system. Some of the experiences are difficulties encountered, for example, remembering solfège; some of them consolidated their concepts of music, for instance, layering and counting beats. Concluding the subjects' thoughts on Grid Notation, observation and analysis, Grid Notation, to a large extend, is suitable for students with intellectual disabilities and it brought new music experiences, especially related to music score reading and writing. Additionally, application of Grid Notation in future music events is foreseeable. Therefore, Grid Notation could be an alternative for students with intellectual disabilities to gain music literacy skill.

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INTRODUCTION

Music can be enjoyed regardless of intelligence. Corke (2002) supported this statement by stating that music 'goes beyond intellect and therefore is accessible to all levels of intelligence' (as cited in Kossyvaki, Papadakis, & Curran, 2018, p.152). Consequently, connections between music and special education needs are apparent. Various researches have shown that music is beneficial to people with intellectual disabilities (ID) in social, cognitive, physical, emotional and psychological areas (Paulino, Amaral, Amaral, Reis, Barroso, & Rocha, 2016; Hooper, 2008; Duffy & Fuller, 2000). However, music score reading, also known as music literacy, might not be enjoyable regardless of intelligence. It is an essential skill if one wants to participate in an ordinary orchestra or more advanced music activities. This skill, which involves reading vertically and horizontally simultaneously, is complex and it needs to be learnt through tutoring (Hébert & Cuddy, 2006). As a result, researchers and music educators mainly execute music activities that do not require score reading when concerning people with ID. Nonetheless, given the diversity of music scores available currently, for instance, graphical notation, it seemed absurd that people with ID do not have a simpler alternative to read music score. Fortunately, I had the chance to encounter Grid Notation, a newly created and award-winning notation system, which simplified the complexity of staff notation. It aroused my curiosity about Grid Notation's impact on music experience for people with ID and whether it could be the alternative of music score reading for them. Therefore, the aim of this research project is to study and describe the music experience of students with ID when they use Grid Notation through lesson observation, conducting questionnaire and interviews.

LITERATURE REVIEW

INTELLECTUAL DISABILITY

The term refers to "limitations in both intellectual functioning and in adaptive behaviour" (American Association on Intellectual and Developmental Disabilities, 2020, P.1). The first area, Intellectual functioning, can be measured by IQ test. A score below 75 implies that one's intellectual functioning is below the population average and is limited (American Association on Intellectual and Developmental Disabilities, 2020). The second area, limitation in adaptive behaviour, refers to three functions: Conceptual (e.g. reasoning, memory…), social (e.g. empathy, communication skills…) and practical (e.g. daily living skills) (American Association on Intellectual and Developmental Disabilities, 2020; American Psychiatric Association, 2020). Through assessing the two areas, one could be diagnosed as having mild (IQ score: 50-69), moderate (IQ score: 35-49), severe (IQ score: 21-34) or profound (IQ score: below 20) intellectual disability (The Hong Kong Down Syndrome Association, 2020).

INTELLECTUAL DISABILITY IN HONG KONG

In Hong Kong, ID is affecting around 2% of the population, in which 87% of them are considered having mild intellectual disability; when they possess new skills, their pace will be slightly slower (American Association on Intellectual and Developmental Disabilities, 2020; Hong Chi Association, 2004; Paulino et al., 2016). However, with the right support and care, they could still progress well (Hong Chi Association, 2004). The Education Bureau identify IQ score 70-75 as limited intelligence and would normally arrange these students to study in mainstream school. For students with mild Intellectual disability or lower, they usually study in special schools. However, special schools that cater for students with mild ID follow the

official curriculum framework closely due to the implementation of 'one curriculum framework for all' in 2017 (Education Bureau, 2017; Wong, 2018).

MUSIC AND INTELLECTUAL DISABILITY

Throughout the history, Music has proven to bring holistic benefits to people with ID. Hooper (2008) had written a comprehensive review of 870 pieces of literature between 1943-2006 that covers music and ID. He separated the essays into three categories: descriptive, philosophical and experimental. Despite the research method, most of them has indicated a constructive relation between music and development of people with ID, including positive outcomes in social, cognitive, emotional, psychological and physical aspects (Hooper, 2008). Recent research projects have shown a similar result while introducing a new software or hardware for this group of people. Paulino et al. (2016) introduced 'Professor Piano', a music android application and they found that it successfully received ID users' attention and kept them motivated; Adkins, Summerville, Knox, Brown, & Dillon (2013) investigated the effect of 'jam2jam', a digital 'music jamming' tool and gained positive result on cultural participation. Kossyvaki et al. (2018) discovered that cooperation between the company of the technology product, school staff and researchers affects the effectiveness of Cosmo units, an award-winning system for people with disabilities. Besides putting the emphasis on improvements in other aspects, their performance in music is notable as well. Wong(2018) observed music lessons for students with ID aged 15-18 in Hong Kong's special schools. In her research, students with mild ID has quite comprehensive listening skills. They are able to differentiate the timbre of instruments, dynamics, tempo and articulations. Additionally, they could notice well-known melodies. In terms of performance ability, through learning by ear but not reading music scores, they could sing with solfege or lyrics. With aid, they could read percussion music

score and coloured score. For creating activities, students could create body movements while listening to music and could rearrange rhythm with flash cards.

GRID NOTATION - INNOVATIVE GRID NOTATION FOR E-ORCH

Grid notation is created in 2019. It is an award-winning notation system which simplified the complexity of staff notation. The notation system separates each measure into four grids. For melodic instruments, solfège is used to represent the notes; For guitars, chord symbols are used; For drum set, acronyms are adapted from the beatbox system. A number of notes and their proximity in a grid imply the rhythm visually; dynamics are represented in colors; Articulations are either kept in their original form or adapted to be more simplified symbols. This notation system was created for e-Orch, an electronic orchestra project which uses GarageBand for music performance and composition (Leung, 2020). The combination of Grid Notation and GarageBand lowered the barrier for users to engage in ensemble and music making and aim to achieve music for all (Leung, 2020). Since Grid Notation reduce the barrier of music score reading, it possesses the potential to be a music reading or creating medium for people with cognitive difficulties.

MUSIC EXPERIENCE

Music could be experienced in different events. It is not limited to traditional forms of music activities, for example, band, orchestra or choir practices. Informal music learning such as listening to music on YouTube or dancing could as well bring about music experiences. In all the events mentioned above, the actions that trigger music experiences could be broken down into the following terms. Reimer (2003) categorized music experiences into two sections, musicianship and listenership. Singing, improvising, instrument performing and composing these kinds of activities that create sounds belong to the first category. Listening,

analysing, writing about music would belong to the latter category. Although other scholars did not follow the categorization, they have some more suggestions to add to the list. Keil (1995) proposed that physical involvement could also be a form of music experience. Elliott (1995) added music arranging and conducting. Small (1998) integrated events that participate in musical performances into one word – 'Musicking'. Rehearsing, practicing and dancing are some additional concepts that he added. Although music score reading or notation is neglected by the academics, it is mentioned in several education documents. The Australian Curriculum(2021) and the Hong Kong Education Bureau(2021) has both included music reading in their curriculum design. Moreover, some other abilities such as composing, exploring forms and structure would require music score reading as a prerequisite. The possible reason that music reading is not mentioned by scholars is that notation system would be unnecessary if one has excellent listening skills and memory, which is the case of some world-known musicians, but it is extremely useful in music education and would reasonably be one of the way to experience music.

The above are the core activities to experience music, some of them involve doing music actively and some of them are enjoying music passively. These experiences brought along other experiences which some may argue is part of the music experience as well. The social experience, not limiting to communication and co-operation experience, are claimed to be music experiences as well. Blacking (1973), DeNora (2000) and Mithen (2006) all agree on the linkage between music and the social aspects. Since music making is often a shared activity throughout our culture and history and the fact that it binds communities together, it is compelling that music has a social nature (as cited in Kerchner and Abril, 2009). Despite the fact that there are solo musical events, Dewey(1902) asserted that all events consist of a

medium, a cultural thread so there no truly 'solo' music events. For instance, the piece you chose to practice would be related to a cultural or history context, or, you would be connected to a particular community or a composer. Every music experience is constructing some social meaning and teaching us the relationships with one another (Kerchner & Abril, 2009). Therefore, social experience could be described as a part of music experience. Education Bureau (2021) and The Australian Curriculum(2021) mentioned that expressing oneself through music is also a crucial part of music experience. Some ability and skills are developed during the process as well, for example, creativity, perseverance, self-discipline, responsibility and commitment (Education Bureau, 2021). Since not every person has these kind of experience or gained these ability during music events, these skills might be more debatable whether it is music experiences or not. To be specific, some of these experience would only be triggered by some music activities or a certain process, for instance, rehearsing might not enhance one's creativity but improvising and composing will. Unarguably, these are some outcomes that music experience could bring about and, although indirectly, is related to music experiences.

RESEARCH QUESTION AND OBJECTIVES

This research aimed to address the situation which students with ID does not have an easier solution to music score reading. The analysis would be focused on Grid Notation's effectiveness and the music experiences of students while using the notation system. Hopefully, the results of the project can bring us one step closer in understanding students with ID's needs in music score reading and hence provide and alternative of a notation system. To attain the purpose of this study, the following research questions are formed.

1. To what extend is Grid Notation suitable for students with intellectual disabilities?

2. For the students, what music experience did using Grid Notation bring? How is it different comparing to their previous music activity?

3. To what extend can Grid Notation be applicable in future music events for students with intellectual disability?

METHODOLOGY

INSTRUMENT

In this project, a case study design and qualitative approach will be adopted as the focused method. Merriam (2009) stated that qualitative case studies can investigate meanings and help us gain perception of experiences. That is the reason why such design is employed to investigate students with ID's music experiences. Among the three types of case studies that Merriam (2009) proposed, descriptive case study would be the most suitable to describe this research, since it will focus more on describing but not interpreting or evaluating. Additionally, this study would be a multiple case study as more than one student will be selected to participate in it (Creswell, 2007). The single unit of analysis will be the experiences of students with ID when they use Grid Notation. A quantitative approach is also used while constructing questionnaires, but it is acting as a preliminary understanding of the subjects while the quantitative approach is the main focus. In general, the experiences of students will be examined through questionnaires, interviews conducted after lessons, observation of their performance in class and analysis of their homework.

SAMPLE

Four students, who enrolled in the e-Orch course offered by Jockey Club Youth Academy for Special Educational Needs, are selected for this study. In that course, there is a total of 25 students with special needs, in which eight students are diagnosed with intellectual disability. Among the eight students, only four students fulfilled the attendance requirement by reaching a 80% attendance and are high-functioned enough to be interviewed. Hence, they are selected to be the subjects of this project. The Academy aimed to provide continuing education for students with special education needs who graduates from secondary schools but are unavailable to go on to tertiary education. They provide a series of courses such as gardening, boardgame playing and career planning. The e-Orch course being one of them, aimed to enhance students' music ability by teaching them to play music on GarageBand through reading Grid Notation. It was held from 14/9/2020 to 23/11/2020 and ten lessons are delivered in total, while the third and fourth lesson are face-to-face lessons that last for three hours, the others are Zoom lessons that last for an hour. The lessons are taught by two students from The Education University of Hong Kong, with myself being one of them. The subject's profile can be found in Table 1, pseudonyms (Andrew, Brian, Cindy and Daisy) are used to protect participants' identities.

Name	Sex	Age	ID	Multiple disabilities	Previous education
Andrew	M	25	Mild	None	Special school
Brian	M	22	Mild	Special learning disability, autism, communication disability, Attention deficit hyperactivity disorder (ADHD)	Special school
Cindy	F	23	Mild	Autism	Mainstream school
Daisy	F	22	Mild	Special learning disability, Down's syndrome	Mainstream school

Table 1 – Participants' data

CONSENT AND PROCEDURE

This project had been approved by the Human Research Ethics Committee (HREC) of The Education University of Hong Kong, and all participants returned a consent form. A questionnaire was designed to focus on the subjects' user experience with grid notation which addressed the first research question; some questions are related to their music experience as well. Eight questions are set according to the seven elements that affect user experience: desirable, accessible, usefulness, usable, valuable, credible and findable. Besides one question that ask the participants to rate different instruments from the hardest to the easiest, all the other questions consist of a scale from one to five for them to choose from. The aim of the questions is to find out the participants' view towards Grid Notation. To cater for the subject's reading ability, the questionnaire is carried out in Zoom while I read out the questions for the students.

Following that, an interview is carried out. It is semi-structured, designed to ask follow-up questions in consonance with the questionnaire, aiming to discover the reasons behind the participants' answers. For example, asking them why do they think using Grid Notation is easy and which elements made it more assessable in their opinion. For Andrew, Brian and Cindy, the interview is conducted in their mother tongue, which is Cantonese. While the interview with Daisy is conducted in English, which is her preferred language. Another quantitative method, observation, will be principally used to describe the subjects' music experience which addresses the second research question. The eight lessons on Zoom are video-recorded and the two face-to-face lessons are voice-recorded. Therefore, the observation can be thoroughly conducted based on their in-class responses and participation from the perspective of a teacher. The data of accuracy regarding rhythm and pitch of their performance in class and homework will also be analysed. There are four pieces of homework

in total. The first one is recording of the song 'Let it go', the melody and guitar part recorded separately. The second one is a written Chinese drum accompaniment creation for the piece Kojo no Tsuki. The third one is a recording of their creation of the previous homework. The last one is a double tracked creation consisting of Pipa and their recording from the previous homework.

FINDINGS

GENERAL DESCRIPTION OF THE PARTICIPANTS

Although the participants are highly-functioned young adults, it is important to get a sense of their personalities, behaviors, ability and their music background to acquire a fuller understanding of the study because their behaviors would affect the way they learn and how they perceive themselves and their surroundings.

Andrew

He played drum set before and had been to a band competition. Although he is comparatively quiet in class, he is not shy to answer questions when his name is called. The ID trait, slow in learning, can be observed in Andrew but he is always willing to try.

Brian

He learned guitar and drums before but only at a beginner level. With great curiosity in music and Japanese culture, he is quite active in class. He is quite bright in using technology but his motor coordination is not so agile.

Cindy

Cindy played the piano and xylophone before. She showed autism traits which she often talks about a certain topic and would be inattentive. Although she is quite active in class, her inputs

were mostly illustrating that she can or cannot follow the pace. She often shows difficulties using GarageBand.

Daisy

Although she did not play any instruments before, she is one of the few who is good with solfège which she said she learned in school. Her preferred language is English, which made the lesson quite difficult for her to understand. However, she is still positive, cheerful and enjoys performing.

QUESTIONNAIRE

Participants' views on Grid Notation are reported through the questionnaire, the questions and results can be found in the table below.

	Andrew	Brian	Cindy	Daisy	Each questions' mean
Q1. How easy is reading Grid Notation for you?	3	4	4	5	4
Q2. Rate (Melody, Guitar, Bass, Drums) from hardest to easiest	M,D,B,G	M,B,G,D	M,B,G,D	B,G,D,M	
Q3. How well do you think you can read Grid Notation?	3	3	4	3	3.25
Q4. When you play songs from Grid Notation, how accurate do you think you were?	4	4	4	2	3.5
Q5. How much do you think you improved musically when using Grid Notation?	4	2	4	4	3.5
Q6. How confident are you when you use Grid Notation after class?	3	3	4	4	3.5
Q7. How likely will you use Grid Notation for other music experience?	3	1	4	2	2.5
Q8. How much do you enjoy playing music with Grid Notation?	4	3	4	5	4
Participants' mean (except Q2)	3.43	2.86	4	3.57	

Table 2 - Questionnaire's result

In general, the responses towards Grid Notation are positive. Besides Q2, which will be discussed separately, the questions are set in a way which the higher the number is, the more satisfactory result it represents. Since the questions are on a scale from one to five, it is noticeable all questions, except Q7, exceed the mean of three. Q1 (How easy is reading Grid Notation for you?) and Q8 (How much do you enjoy playing music with Grid Notation?) obtain an exceptional high mean of four, which conveys that Grid Notation is usable, accessible, understandable and desirable to the participants. For Q4 to Q6, they tie on a score of 3.5, but it represents a diversity of information. It is implied that the subjects find themselves using Grid Notation quite effectively with some spaces for improvements; the notation system

fostered their musicality in some ways; they could sometimes use it independently without the help of teachers. Conversely, Q7 (How likely will you use Grid Notation for other music experiences?) scored below the mean on 2.5, which seemed fair since Grid Notation is a newly developed notation system. Additionally, for some of them, this is the first time they read a music score, let alone Grid Notation.

For Q2, the acronym in the table represents melody, guitar, bass and drums in an order starting from the hardest instrument in their opinion. It is obvious that melody has been voted by three of them as the hardest one but contrastingly it seemed to be the easiest to Daisy. Brian and Cindy have the exact same rating for the four instruments and it is actually similar to Daisy's rating which they think bass is harder than the guitar, and guitar is harder than drums. Andrew's choice is unique among all. Additionally, it is notable that there are some comparatively extreme scorings from Brian and Daisy (highlighted in red and yellow), these data will be discovered more in the following section.

INTERVIEW

The semi-structured interview follows up on the questionnaire, putting emphasis on the 'why' and 'what' behind their answers. It also explores more of their previous music experiences and compares with the current one.

Andrew

Although Andrew had experiences of playing the drum set, he put it as the second hardest instrument. He further explained that the reason was the score of the drum set is difficult to read and that is the main reason he rated Q1(How easy is reading Grid Notation for you?) with the score 3. He described that when he learnt the drum set, he did not need to read a music score. Despite the fact that he is familiar with the sounds of the drums, it is difficult to

translate the acronyms on Grid Notation into actions. Moreover, he would easily forget the acronyms of drum set and solfege when he practiced after lessons and he said one of the reasons might be that he is not good at English.

In terms of ensemble experience, he stressed the importance of alignment of different parts. Therefore, when he is playing an easier part like guitar, he is curious and would look at the lines of other parts and check if they are in beat.

In terms of accuracy, he felt his rhythm is the weakest but that might be due to the delay when he uses GarageBand. He compares the experience with drum set playing in real time which delay would not happen. He also commented that the chord editing in GarageBand is difficult to navigate and online lessons had made the experience more difficult.

Brian

Brian also had experiences of playing the drum set which he is confident in his rhythmic sense and therefore chose it to be the easiest instrument. For the difficulties in using Grid Notation, he explains it is difficult for him to look at the score and the iPad simultaneously while playing music and that he could not memorize the score. However, reading Grid Notation had helped him to understand the structure of a piece and it is easy for new learners.

He is one of the participants that had learnt about other notation systems before. He rated that Grid Notation would be the easiest to read, staff notation and guitar tab notation is more or less the same and the hardest would be drum notation.

In terms of ensemble experience, he commented he would focus on his line when we had face-to-face lessons. On the contrary, when he records some works for homework, he would

be aware of other lines, especially when he needs to create a rhythmic line for a piece, he would pay attention to the melody.

Cindy

Cindy expressed that she had knowledge on solfege (she played xylophone and piano before) but she still finds melody being the most difficult part. However, her biggest barrier might be related to operating iPad and GarageBand which is the main reason why she could not hand in homework. She mentioned that the colors in Grid Notation was helpful that she would not lose track of her line. She specifically mentioned the corresponding colors to different instruments. In terms of other notation systems, she had experience with staff notation and she commented that Grid Notation is way easier to read.

Daisy

Daisy also had experience with solfege and it made reading Grid Notation easier for her. She expressed that while playing bass guitar, she found it hard to focus. Rated her accuracy as 2 marks only, she explained the main reason is tempo. She also had problems operating technological devices and uploading homework through google classroom. She mentioned she encountered difficulties while reading Grid Notation but failed to specify her problem. In terms of looking back and forth between the score and the iPad, she sometimes finds it hard but sometimes not.

LESSON OBSERVATION

The four subjects, except Daisy, probably because of the language barrier, are quite active students compared to other classmates. They often answer questions and demonstrate. I will be listing out and describing all their responses related to the use of Grid Notation while adding comments as their teacher.

Lesson 2

Cindy counted in with four beats while looking at the score of 'Mary had a little lamb.' Although she mimicked how the teacher said 'One, two, three, go', this still showed her understanding towards Grid Notation's boxes that represent beats.

Cindy demonstrates the drum pattern 'BTKT' perfectly, both the sequence of the drums and rhythm. She has a good sense of tempo.

Andrew demonstrated the drum pattern 'KKttddkk'. However, the rhythm is not entirely correct, the duplicated drum's notes are played closely together instead of averagely.

Lesson 3

Cindy demonstrate the drum pattern 'KKttddkk', the rhythm was entirely correct.

Lesson 4

By the end of the lesson, we assigned numerous students to play different parts in 'You are my sunshine' as an ensemble. The assignment of the last lesson is to add notes to the drum set part and add details of the strumming motion for the guitar part. We selected Brian's creation to perform. However, he added notes to the melody and bass guitar part as well. Some of it is quite complicated that he said couldn't even play it himself. For the guitar part, he added motions of strumming upward and strumming downward which the symbol of strumming downward was not taught before. This showed that he fully understood the use of the guitar chord markings. Additionally, the song originally only consisted of three chords D-G-A (I IV V), he added E and F chords (II and III) in his work. The added chords did not harmonize with the melody well, but it is quite an advanced skill to do so. For the bass guitar part, he knew that it was not for strumming so he added a number to indicate which string should be played. This showed that he had strong observation skills and could distinguish the

two instruments and their special markings even though they look quite similar. For the drum set part, he even created a drum set pattern where B and T needed to be played simultaneously, which have not been mentioned as well. In his work, he could distinguish the acronym in upper and lower case. For the melody part, he added some notes as follows, which quite fits the melodic contour.

You are my sunshine

	1			2			
D Key							
Melody		d	r	m	-	m	-
Smart Guitar				D		D	
Smart Bass				D (4)		D (4)	
Drums							

Figure 1 - First two bar of the original score

Figure 2 - Guitar strumming arrow

	5			6			7				8			
Melody	d	r	m	f	-	l	-	t	l	s	f	m	-	d	f

Figure 3 - Brian's creation for the melody part

Lesson 5

Brian and Cindy answered questions about solfège, which showed that they understand the relationship of apostrophe on solfège and octaves.

Lesson 6

Andrew expressed that the melody part is difficult in 'Let it go'.

Lesson 8

Andrew demonstrated Chinese drum pattern 3.

Chinese drum pattern 3

Chinese drum	旁	同	同	昌	旁	同	同	昌	同	同	同	同	旁			

What he played

Chinese drum	旁	同	同	昌	同	同	昌	同	同	昌	同	同	同	同	旁	

Figure 4 - Andrew's demonstration

He explained he repeated some parts because he misread the score. His demonstration was accurate in the beginning and at the end. As he said, he probably misread the score in the middle which is why he repeated the three notes.

HOMEWORK ANALYSIS

Let it go melody and guitar recording

Andrew recorded both the melody and guitar part. For the melody, the rhythm is quite unstable, but all of the notes are correct except some mistakes related to octaves and repeating notes. Some remarks are made as follows.

Let it go

	1		2		3		4	
G Key		1. Not holding long enough	2. Elongated / 3. Wrong octave	4. Elongated	5. Missed / 6. Missed	
Melody	l, t, d	-	s, s, r	-	-	d l, l, l, l,	l, t,	d

Figure 5 - Comments on Andrew's homework

For the guitar part, the chords are not in beat, which are mostly taking longer than they should, especially between changing chords. He also chose to strum the chords by hand which might intensify the delays. However, he played all the chords correctly according to the sequence shown in the score.

Brian only recorded the guitar part. The chords he strummed are quite in beat. Delay only happened when he changes to the C chord, which is accidentally at the start of a new line. Therefore, the eye movement of locating the following line might be the reason for the delay. He also misunderstood the chord Dsus4/F#, which Dsus4 and F# was played as two separate chords. However, this might be due to the poor presentation of the arranger. The chord should have stayed in the same box to prevent such misunderstanding but instead it is noted as follows.

G		G		Dsus4/F#		Dsus4/F#		Em		Em	

Figure 6 - Score of 'Let it go' (Guitar part)

CREATE CHINESE DRUM PATTERN FOR KOJO NO TSUKI (WRITTEN)

The original score places a Da Gu note on every first and third beat. The task for the students is to either add on to the score or create a new percussive line for the piece.
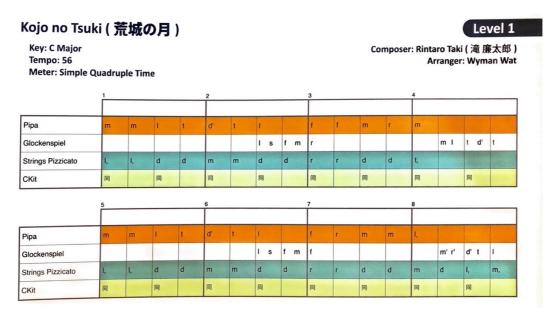

Figure 7 - Original score of Kojo no Tsuki

Andrew created 12 bars drum accompaniment with one note in each box written on a piece of paper. However, the whole piece has 24 bars in total, and it is unclear whether the notes he created are just for the first 12 bars or not.
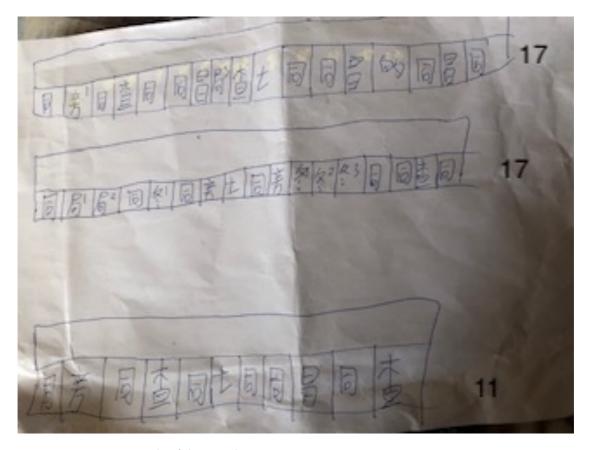
Figure 8 - Andrew's homework

Brian chose to add on to the original score. He mainly incorporated Da Gu and Pai Gu in his creation. Some cymbals are added during the rests in the melody and at the end which showed that he had a sense to alternate parts.
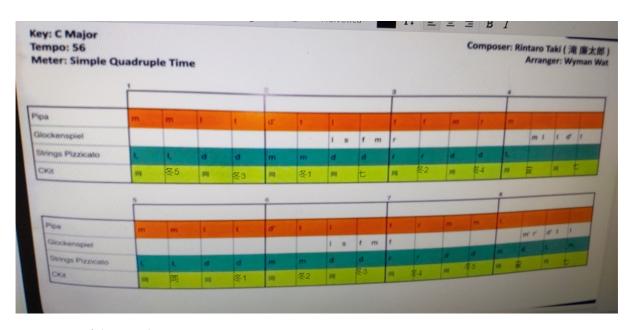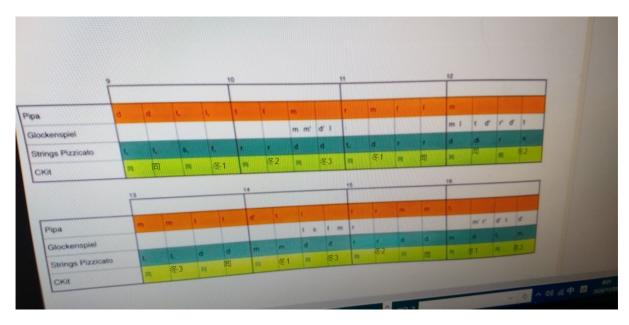

Figure 9 - Brian's homework P.1
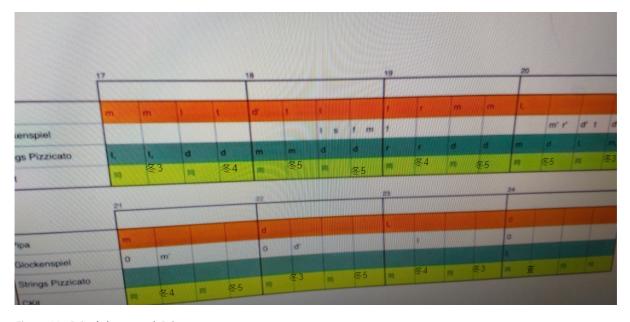
Figure 10 - Brian's homework P.2

Figure 11 - Brian's homework P.3

Cindy also added to the original score. In most of the measures, she filled in two notes in one box which enhanced the complexity of the accompaniment. She used every single instrument and especially likes to go through each group of instruments before she uses the next group. For example, every Pai Gu was played before she moved on to the cymbals.
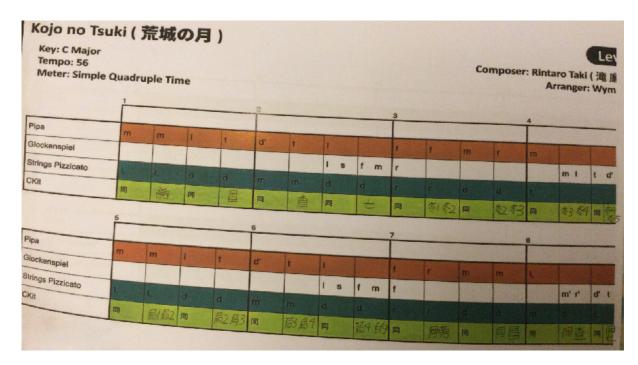
Figure 12 - Cindy's homework P.1

Figure 13 - Cindy's homework P.2

Figure 14 - Cindy's homework P.3

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Andrew recorded the first five bars of the accompaniment he created. The notes he played are accurate, but the rhythm is not. There are quite a lot of blanks between each note.

Brian recorded the whole piece he created. He had a better sense of rhythm, but there were longer blanks when the instrument is located in the upper corners of the iPad. Most of the notes are accurate.

FREE CREATION

Although Daisy could not hand in the homework above, she created a 12-bar piece consisting of Chinese drums and Pipa, mimicking the set up of Grid Notation using Microsoft Excel. The first six bars are repeated. The melody she created for Pipa is quite robotic which the same note will be played three to four times before changing into a new one. The Chinese drum part included more variation. She used quite a lot of Da Gu and Pai Gu at first but added quite a lot of cymbals at the end. She then recorded her creation which is roughly accurate with a strong rhythmic sense. Some of the melodic notes are performed incorrectly. She also seemed to have trouble aligning the drum and Pipa because the two tracks are recorded separately.
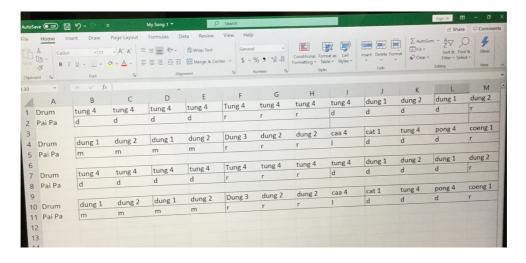

Figure 15 - Daisy's homework

DISCUSSION

SUITABILITY OF GRID NOTATION

The degree of complexity of Grid Notation is a fit for students with ID. One of the questions with the highest mean in the questionnaire is that the subjects find the system easy to use, and it is supported by the fact that they did not encounter many difficulties with the notation system even some of them are using a music score for the first time. Although they would make mistakes while performing, it is a process of rehearsing and it could be related to other factors, for example, hand-eye coordination. On the other hand, they performed relatively splendidly when they created using Grid Notation. This shows that they possessed quite a thorough understanding of the structure, framework and rules of the system. Additionally, the special features and notations signs of Grid Notation facilitate its use. For instance, the use of colors, which is uncommon in other notation systems, helped the subjects to follow their instrument's line. Another example is, the guitar strumming arrow is visualizable and predictable that not much extra effort is needed to retain the meaning of it. A proof of it would be Brian employing an arrow downwards when the teachers had only taught the symbol of strumming upwards. Furthermore, the score features many pop band instruments which evokes the subjects' interest. Some of the subjects had experiences playing in a pop band, and they were quite excited to see and play those instruments on iPads. Even for those who did not have that experience, pop band instruments are quite cool and interesting which they would be excited as well. The last reason that Grid Notation is suitable for the subjects is that it is uncomplicated to sketch it out and start creating. As demonstrated in the subjects' homework, there are hand-drawn, adding text boxes in the document, writing on a printed score and excel versions. Computer program is not a must to create using Grid Notation. Conversely, it is conveniently accessible if one wants to write down the melody or harmonies

in their mind. Although Grid Notation might be challenging at some times, it is still within students' grasp, in other words, it is in the zone of proximal development. In the inner circle of the zone is what the learners can do; the middle circle is the zone of what the learners can do with guidance; the outer circle is what learners cannot achieve at the moment (Vygotsky, 1980). Grid Notation is in the middle zone where the learners can conquer to enlarge the inner zone of what they are capable of. Therefore, it is a suitable tool for students to learn music.

To learn with Grid Notation in the most effective way, there are a few situations that can facilitate its functions. In response to the zone of proximal development, the subjects learn better when there is assistance from teachers. The subjects' in-class demonstration is better than their homework. Especially after the teachers offered them feedback, they could almost demonstrate a pattern or a song perfectly. This is also reflected in the questionnaire which most of them experienced only a fair amount of confidence to use Grid Notation by themselves. Most of them experienced difficulties in regulating the tempo which shows that they comprehended the concept of beats through the grids in Grid Notation, but it might still be challenging to play the notes in beat. This is normal because e-Orch usually has a conductor to regulate the tempo which confirms the stance of Grid Notation could be used better with guidance. The second circumstance is the students have prerequisite knowledge on solfège, drums' acronym and the symbols. Three out of the four subjects rated melody as the most complex part, and the reason is that they are unfamiliar with solfège. Andrew also expressed that the drum set acronym is hard to remember. The example above shows that if students had mastered this knowledge, it would be even easier for them to use Grid Notation. The last situation is when the score is not overly complex. Grid Notation is most suitable for

representing comparatively simple pieces like the examples showed before. Complex harmony, rhythmic patterns and octaves could not be documented. However, this might be the decent amount of complexity for new learners of music scores, especially if they and students with ID.

Music experiences that using Grid Notation brings

Among the music experiences discussed in the previous sections, most of them, for example, arranging and analysing, could be achieved through Grid Notation since it brings a holistic music experience. Most importantly, there are four essential experiences that are new to the subjects. The first area is score reading experience. Although Cindy and Brian had score reading experiences before, they are at a beginner level and the score is for a solo instrument. Grid Notation shows more than one instrument which empowers them to play the different instruments in pieces with multiple layers. For those who did not use a score to play music, reading Grid Notation helped them visualise the score and aid their memory. Besides, they had the chance to undergo the intense multi-tasking experience of playing and instrument and looking at the score simultaneously, which Brian and Daisy stressed that it is sometimes difficult for them. Furthermore, with score reading skill, they could analyse music with a larger scale. The second area is score writing. Being able to understand a notation system, the subjects could now write down their music thoughts. Not only could they visualise the score in a vertical way, for example, Brian added more percussive accompaniment when the melody is in rest, they could reflect and edit on their work. This is a crucial process of composing because not even the most significant composer could compose a piece in one try. Score writing is not limited to composing, it also means that they could arrange a piece or transcribe music by ear which is special experiences using Grid Notation brings. The third and fourth area are interrelated. Practise, and rehearsal experience is also created which leads us to

social experience. Despite the fact that some of them had experience in practising instruments, the experience of ensemble rehearsal is completely different which they might not experience in the past. In ensemble rehearsals, we need to pay attention to the conductor and others' performances. Given that the students could read Grid Notation, it had provided them with more chance to join ensemble practices which brings social experiences such as collaboration and group discipline. Some may argue that other music activities, for instance, joining a band, could also deliver holistic experience. This is a legitimate statement and it is true that there are some experiences Grid Notation could not achieve. However, it is critical that the difficulty of the event is reasonable that students with ID could handle, and Grid Notation fits that description.

APPLICABILITY IN FUTURE MUSIC EVENTS

In view that Grid Notation is a newly developed system, there might be not much chance to implement the score as a whole again in other contexts. However, the knowledge acquired in the progress could be applicable in future music events. In terms of music knowledge, Grid Notation had provided an extensive variety of it. Students learnt about solfège, chords and drums' acronym which could be useful when they listen to pop music or maybe even join a pop band. An example would be in a pop band practice which Brian is in, we used drums' acronym to communicate, instead of using scores or demonstration. The result is that he understands what we wanted instantly. In terms of music concepts, Grid Notation had consolidated their views of abstract theories, for instance, layers, beats, and bars. Their improvements in the two aspects would benefit them in their future music events. Currently, there are a few inclusive orchestras in Hong Kong, for example, the True Colors Symphony and Music Angel Orchestra. It is unsure what notation system they are using, and whether Grid Notation is suitable for them because it depends on their choice of repertoires and the

level of their members. However, Grid Notation certainly provided more alternatives in the notation system and perhaps more inclusive orchestra can be established.

LIMITATIONS

The primary limitation of this project is that most of the lessons are Zoom lessons which hinders the ensemble experience for students. Anyhow, this consequence of COVID-19 is inevitable and hopefully face to face lessons can be resumed promptly. Another limitation is the subjects have other disabilities which might affect their performances. Cindy is affected by autism which she would repeatedly talk about some unrelated topics, and this might lead to her inattentiveness in class. Therefore, it is impossible to conclude if Grid Notation is just suitable for students with ID or other disabilities as well. Still, these four subjects are the only ones who fulfill the requirement of my selection.

CONCLUSION

On the whole, the progress made by the subjects are encouraging by the end of the course. This shows Grid Notation can be learnt by students with mild intelligence and would have favourable effects on their music learning journey. It is confident to make a conclusion that Grid Notation could be an alternative for students with ID to gain music literacy skill. This responded to my question at the beginning of why there is not a simpler alternative for them to read music score. However, this is not to sum up that all students with ID would find Grid Notation helpful. It is only stating the fact that Grid Notation had helped my four subjects and perhaps others with a similar situation would find it useful as well. Lastly, seeing some of the subjects are mastering the use of Grid Notation, I am curious on whether Grid Notation could act as a transition to staff notation for students with ID. After all, having ID does not mean that one could not learn anything new, with appropriate help and support they could progress

well. Optimistically, more research will be conducted in this area, and students with ID could be provided with more support in learning music.

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INTERVIEW TRANSCRIPTS

PARTICIPANT A

我：八條問題問晒啦，咁之後想問返你一啲...嗯...同你傾吓計咁姐。

A：好啊。

我：你本身係咪有打鼓㗎？

A：有啊。

我：但係我見你問卷嗰度揀結他係最容易睇嘅譜，點解嘅？

A：因為要睇鼓嗰份譜難好多。

我：係嘅係嘅。我見你閱讀方格樂譜有幾困難嗰條揀咗三，你覺得佢難閱讀嘅地方喺邊度啊？即係點解你揀三，唔揀四揀五呢？有咩令到你覺得佢難呢？會唔會係佢嘅拍子？旋律...

A：打鼓我睇唔明啊，我真係睇...

我：個鼓好難明，係咪啊？

A：嗯。

我：Okok。係咪即係你識得本身打鼓嗰啲聲音啦，但係睇嗰啲ＢＴＫ嘅時候就會轉換唔到？

A：唔係，打鼓我係跟老師學嘅，我都唔係睇譜嗰啲呀。

我：咁就係話當你用 GarageBand 嘅時候，你知道個鼓會係咩聲音，因為你有打開。

A：係呀係呀。

我：你知道「Bom,bom」咁樣，咁但係係唔係話要你睇ＢＴＫ嘅時候就會唔知...就會比較難。

A：嗯。

我：我問你話，你覺得自己使用方格樂譜奏樂嘅時候有幾準確，你答咗四喎，係咪？

A：係呀。

我：你覺得自己爭啲咩，點解唔俾五分自己呢？乜嘢唔做得咁好呀，拍子啊，旋律啊，定係乜嘢呢？

A：都係拍子，聽得唔係好清。

我：你嘅意思係播返出嚟嘅時候聽得唔係好清？

A：係呀。

我：定打緊嘅時候唔係好清？

A：唔係，唔係好夾，即係自己打個下，自己聽返。

我：咁你講緊呢個唔係好夾，係唔係講緊，即係，你按落去嗰陣好似未有聲出咁樣？

A：係呀。

我：即係會遲咗？唔似你平時打鼓，一打落去就有聲？

A：係呀係呀。

我：係呀，我都明白啊呢樣嘢。嗯…你話你課後用方格樂譜嘅時候冇咁大信心，因為老師唔喺度。你有冇遇過啲咩問題啊，睇譜或者錄音嘅時候。

A：睇譜啊？嗯…

我：即係有冇話唔記得咗啲 BT K 係咩呀，或者…

A：啊係呀，係呀。我會唔記得咗。

我：咁結他嗰啲 chord 呢?即係我哋一開始教 Let it go，都有啲幾難㗎嘛，即係又要（調）教好多嘢咁樣，嗰啲會唔會有時唔記得咗點樣教喎，咁樣。

A：我會唔記得啲音符。

我：會唔記得啲音符。 呀，你係咪想講 d r m f s l t d' 嗰啲呀？

A：係呀。

我：好，啊，明白明白。咁你頭先你講你係咪冇學過其他譜呀？

A：係呀，淨係學過鼓。其他都係冇呀。

我：好，咁譬如你睇方格譜嘅時候，尤其係我哋面對面教嗰兩堂…

A：面對面容易啲嘅。

我：係呀，我都覺得係。你係會一行咁樣睇，譬如你負責打鼓啦，你係會一行咁樣淨係睇彭，定係你隻眼都係會望吓其他樂器做緊咩㗎？

A：因為我唔係好識英文…嗰啲符號，所以我睇得唔明。

我：你係咪講緊呢一啲樂器名？

A：係呀係呀。

我：哦，呢啲樂器名你唔使理佢。你當係我哋睇緊 Let it go 先。我主要個問題係…你嗰陣面對面嗰陣，你咪要玩鼓咁樣啦。

A：係

我：譬如玩緊 Let it go，你係會淨係睇住你嗰行，定係你會望吓其他樂器？

A：淨係睇嗰行。

我：咁如果結他呢，結他容易啲啦，你會唔會得閒咁樣望下其他人做緊咩咁樣。

A：都有，結他容易啲呀嘛。

我：即係容易啲嘅時候就可以望吓其他。

A：係呀，難嗰啲，我唔會睇。

我：係，咁你望吓其他係想睇咩啊？

A：睇吓有咩…音囉。

我：睇吓人哋玩唔玩得啱，會唔會睇吓人哋玩唔玩得啱。

A：係呀係呀。

我：呀，會唔會對下，睇吓自己係唔係啱呀？

A：因為我打個下要，要聽到人哋，即係夾唔夾呀嘛。

我：嗯，明白，即係你都幾重視夾唔夾到呢樣野喎。

A：係呀，要啊。

我：嗯，即係你覺得同人哋玩嘅時候，個聲係一齊，係好重要嘅。

A：係呀，比賽都係要聽人哋個旋律㗎嘛。

我：係呀，係呀，好有經驗喎。

A：我所以咪，成日喺度…打鼓嗰陣咪會去望下啲人夾唔夾囉。

我：哦，明白。咁我啲問題就問晒啦，多謝你嘅答案。答得好詳盡啦，多謝晒你。

PARTICIPANT B
我：主要係想睇吓對方格樂譜有咩感受，會唔會其實上堂嘅時候覺得，啊好難用喎！

B：對於我來講…就係容易…用起上嚟比較容易嘅。不過如果五線譜嗰啲嘅話，我可能可以試吓。即係如果用五線譜嗰啲嘅話，雖然我未必可以話好容易去掌握到，但係我都可以試吓。即係話，如果用五線譜嘅話，我都可以睇吓個效果係點樣嘅。

我：你覺得你用方格樂譜演奏嘅時候有幾準確呢？

B：雖然係…我雖然係知道應該係點樣樣去演奏，但係實質上，因為要一邊睇個譜同埋一邊演奏嘅話，就未…可以掌握到得好好囉。

我：咁啲問題就問晒啦，今日想同你傾吓頭先你講嘅答案。譬如話你覺得方格樂譜都幾容易嘅，你揀左二嘅，咁呢想問返你點解呀，會唔會係佢個節奏好容易睇，啲旋律好容易睇？

B：都會了解到一首樂曲，或者首歌，佢嘅基本嘅嗰個格式構造係點樣先囉。

我：哦…即係可以睇到晒…唔同嘅歌嘅部份係唔係啊？即係好似呢首歌咁樣？

B：如果係對初學者來講係容易嘅，或者對我來講係…俾啲時間我了解到首歌係點樣囉。

我：你呢樣嘢睇得好仔細喎。你話鼓係最容易，係咪因為你本身有打鼓，點解鼓係最容易㗎？

B：可能係因為我對拍子方面比較擅長啲，所以演奏方面會比較好囉。同埋熟悉囉。旋律嗰邊因為…因為之前份功課係要交旋律嗰份呀嘛，鋼琴嗰個咩。所以唔係話太過掌握好好囉，要慢慢嚟。

我：明白，但係你嗰份功課都錄得幾好喎。你揀話你覺得自己有幾準確嗰陣你俾咗自己 4 分，你覺得自己爭乜嘢啊，爭拍子，爭啲音，定爭啲咩？

B：如果淨係打鼓嗰個拍子嗰 part 嘅話，我因為…因為中式鼓嗰份功課來講嘅話，因為我要一邊睇住個樂譜黎去錄嘅時候呢，我要一邊睇一邊…因為係用 iPad GarageBand 黎錄嘅話，唔係真實嘅鼓黎錄嘅話，我會有啲唔方便囉。又或者可以咁講啦，或者係我未習慣要一邊睇住個譜，一邊打個鼓，去錄佢。因為我未背到個拍子，同埋個 Melody 嗰啲其他嘢落去囉，可能唔習慣，所以錄嘅時候會有少少唔準確。

我：但係我覺得你嘅功課其實非常好啊，可以對自己多啲信心。咁跟住係尾二一條，我想問你係咪識睇其他譜㗎，我聽到你提起五線譜，你係咪識睇其他譜㗎？

B：我係有少少基本了解囉，但係唔係話完全係好熟悉係點樣樣囉，佢入邊一啲野係有基本了解嘅，但係唔係成日用得到囉。

我：你睇五線譜嘅時候係唔係鋼琴㗎，定係其他樂器㗎？

B：鋼琴可以五線…鋼琴基本可以五線譜，但係其他樂器就唔係太清楚。

我：我見你之前話你有彈結他，咁你彈結他嘅時候係唔係睇呢啲譜㗎？

B：都睇過囉，我學嘅時候都有睇過呢個結他譜。

我：你係睇嗰個 C 跟住個指法，定係你睇吓邊 T A B Tab 嗰個啊?

B：如果係結他嘅話就睇佢嗰個…嗰啲 chord 啊，嗰啲咩啊，嗰啲位囉。

我：哦…係咪即係嗰啲 C 呀 G 呀，呢啲。

B：係呀。但係都好似宜家呢個譜咁樣樣，會連埋五線譜。我估其他…我打鼓啊，嗰啲其他樂器都係會加埋五線譜入去。

我：你係咪都有打鼓啊，你頭先話你節奏感嗰啲。

B：我係有玩嘅，不過唔係話真係攞住個鼓來玩囉，喺屋企…即係個意思係，係屋企打空氣鼓之類嗰種囉。

我：咁你學鼓嘅時候使唔使睇譜啊？

B：我係冇學過，不過自己去練習咁樣玩囉。

我：好犀利喎。咁即係話你識睇少少五線譜，識睇少少結他譜，同埋我哋學嘅方格樂譜。

B：鼓嗰個鋪我係未睇過囉。

我：咁如果你要排序啦，結他譜，五線譜，同埋方格樂譜，邊個最容易睇啊，對你來講？

B：暫時，呢一刻來講，方格譜係我短時間會好容易了解一首樂曲嘅結構先囉，然後五線譜我就會知道佢嗰首歌個樣係點樣樣嘅，然後結他譜就係用結他演奏呢首歌應該係點樣囉。鼓譜…因為我未睇過鼓譜…所以係排最尾囉。

我：咁五線譜同結他譜邊一個難啲畫？

B：結他來講，我暫時可以掌握到嗰啲 chord 係點樣嘅，五線譜我要慢慢去再認識一下，去了解下囉。

我：即係五線譜會難過結他譜，係唔係呀？

B：唔會話好難囉五線譜，但係會有少少困難囉。

我：明白，即係五線譜同結他譜差唔多，要啲時間嘅，係唔係咁樣啊？

B：係。

我：最後一條問題啦，就係呢，當你演奏鼓或者演奏結他，咁樣嘅時候呢，你係會淨係望住你嗰行，定係你都係會間中望下其他樂器做緊咩嘅呢？尤其是我哋喺面對面嗰兩堂，我哋要一齊夾嘅時候。

B：面對面嗰兩堂嘅時候，我係會專注起我自己演奏嘅樂器嗰度囉。但係其他錄製嘅功課嘅話，我可能要睇吓其他樂器嘅嗰個 Melody 呀，或者嗰啲咩咩拍子呀係點樣樣囉。即係頭先啱啱對上嗰份功課，我要睇下嗰個 Melody 係點樣嘅，我先可以再配返啲唔同嘅拍子落去囉，然後再慢慢錄制返落去咁樣囉。

我：唔該晒，我問完啦啲問題。

Participant C
我：咁呢首先就想問呢，你話閱讀方格樂譜都幾容易喎，你俾咗 2 分喎，你覺得咩令到方格樂譜容易呀，佢嘅拍子好易睇，佢嘅旋律好易睇定係點樣呢？

C：我打鼓嘅時候我都識做㗎，即係例如呢個係原聲，仲有打中式鼓我都識㗎。

我：你話當你用 iPad 你用 GarageBand 睇譜嘅時候…

C：嗱，即係我用學校平板電腦 GarageBand 打呢啲樂器，我會彈琴彈咗個三首音樂…唔係四首啦喎。

我：咁所以對你來講係好簡單嘅，睇方格樂譜嘅時候？

C：由 You are my sunshine 呀，Let it go 呀，仲多左一首荒...嗰首呀嘛。

我：係呀，新教嗰首中樂，係呀。咁呢你就揀咗話…

C：點解教大有打冷鐘聲啊 Miss？

我：哦係呀係呀，咁你就揀咗鼓係最簡單個喎。

C：係呀。

我：係唔係因為你本身有打鼓？

C：(Humming)

我：Okay.咁但係你話旋律最困難喎，點解你覺得旋律係最困難啊？

C：Um...我驚自己唔識，如果自己唔識，我會搵其他人幫忙，咁人哋就會教導我啲嘢囉。

我：嗯，咁你話旋律好困難會唔會係因為你本身唔識 d r m f s l t d' 嗰啲呀？

C：其實唔係嘅。

我：咁你話覺得旋律困難，會唔會係，啊佢比起其他部份好多嘢睇喎，咁樣啊？

C：嗯…都唔會嘅。

我：都唔會嘅，咁點解你覺得旋律咁難呀？

C：嗯…旋律啊？我而家有嘢唔明添，對唔住。

我：哦，唔緊要。因為呢我見你話旋律好難喎，你揀咗做最難喎，鼓你就話最容易啦，旋律呢你就話最難。我就想知道點解對你來講咁難呢？係唔係因為你本身唔識 d r m f s l t d' 呢？

C：其實唔係㗎，呢八個音我都識㗎，即係佢係好容易，又唔係咁困難。喂呀黃 Miss，但係我知道琴日呢人哋熄咗個 Zoom 呢，就之後跟住我就熄咗部電腦，之後麥先生就好擔心緊張咁周圍打電話俾我呀。

我：係呀真係唔該晒麥先生啦，因為琴日熄咗個 Zoom 呢，我都唔知…

C：如果人哋未開 Zoom，我會搵阿妹，工人姐姐或者麥先生幫忙。

我：係呀，你做得好好呀，咁我繼續問先啦喎。

C：我爸爸同埋媽媽而家唔係屋企啊。

我：我繼續問先啦喎。咁呢你覺得你自己演奏得幾準確啦，用方格樂譜嘅時候，你俾咗 4 分自己喎，你覺得爭乜嘢，所以唔俾 5 分自己呢，你覺得自己有咩部份未做得好呢？

C：有陣時呢，當我上緊堂嘅時候，我有時呢都試過自己喺自己個世界度游魂，聽唔到人哋講嘅嘢，然後人哋問我嘅嘢我又講唔出喎，所以我都要多啲比自己信心自己，俾心機努力加油，我會祝自己身體健康學業進步。

我：係嘅係嘅，咁我頭先問呢用方格樂譜演奏嘅時候，你話自己都非常準確嘅，但係你冇比自己 5 分，你俾咗自己 4 分，我想問你你覺得你有咩部份做得未夠好，係旋律呀，拍子啊，定係話邊部份你覺得自己做得未夠好呢？

C：我諗諗先啊，旋律。

我：咁樣當你課後去錄製功課嘅時候喇，咁你要自己去錄製，同自己睇譜啦…

C：教大音樂功課有啲好難做，我覺得自己又唔識做，當我自己唔識做嘅時候，我唯有學下啲歷奇同埋插花嗰啲嘢。

我：你覺得好困難嘅時候，係覺得睇譜好困難唔識睇，定係因為其他譬如話唔識得上載功課嘅困難呢？

C：上載功課好難做，所以我唯有叫爹哋或者媽咪教我。即係平時爹哋同媽咪唔係屋企我自己唔識做。我就唯有背默下嗰啲歷奇同埋插花，因為阿妹同工人姐姐好忙唔得閒。因為阿妹要做學校啲嘢，工人姐姐要做家務負責清潔屋企。

我：明白，咁你覺得困難會唔會係唔識睇方格譜呀，睇吓你仲記唔記得先。譬如話見到個譜嘅時候，你唔知要打乜嘢所以覺得困難，定係唔識得錄製功課，定係唔識用 GarageBand 去錄製功課。

C：用 GarageBand 錄製功課，有啲好難喎，我對自己唔住。

我：哦唔緊要，我琴日都同你講咗啲步驟嘅，又或者陣間完咗之後我再同你解釋吓。但係譬如話你會唔會係睇譜上面有困難，譬如話，你會唔會望到…你自己創作咗，我哋中國鼓嘅部份，你會唔會唔識得望住個譜，打返個音樂出嚟呢？

C：咁即係譬如…我唔識，你等我攞埋個紅色 File 入嚟先，對唔住呀。

我：好，慢慢，慢慢。

C：即係如果我唔識，我就會用呢個紅色 File 去睇住份譜去做。

我：係，咁但係當你睇譜嘅時候，會唔會有困難呢，你覺得？

C：都唔難，好容易，即係譬如我自己試吓打一次先。

我：都唔使，可以留返遲啲示範俾我聽，但而家想同你傾偈先。咁即係話你睇譜嘅時候唔覺得好友困難，會唔會話睇吓睇吓，唔知自己睇咗去邊度啊？

C：唔會㗎。

我：會唔會話睇吓睇吓睇咗成一行，或者下一行

咁樣呀？

C：即係我會…唔會㗎 …由 m m f s s f m r d d r m m r r 咁樣呀嘛。

我：係，咁即係你睇呢行嘅時候，會唔會睇吓睇吓，睇錯咗下面嗰啲㗎？

C：都唔會㗎，譬如呢度係用鋼琴打嘅，淺綠色嗰度係用個鼓打嘅。

我：咁即係你覺得呢個顏色對你來講有幫助嘅？

C：係。

我：咁你係咪識得睇其他譜㗎，我見你話你有打鼓啦，你識唔識睇五線譜啊？

C：五線譜我識㗎，即係我都識睇五線譜㗎，睇吓呢個係咩音呀，睇吓呢個係咩音呀，咁樣。

我：咁你打鼓嘅時候睇唔睇譜㗎？

C：彈琴就睇譜，但我鼓係唔使睇譜嘅，因為屋企都冇鼓。

我：咁你覺得五線譜，同方格樂譜你覺得邊個易睇啲啊。

C：方格樂譜好容易呀，唔困難。

我：明白，咁我冇問題問啦，唔該晒。

PARTICIPANT D

我：Thank you for your answers. I am going to ask you other related questions but you don't have to choose between 1 to 5 now. You said reading grid notation is easy. Why is it easy? Is it because it is in boxes? Something like that? Why do you think it's easy?

D：Um...because I can recognise words.

我：Yes, you can recognise words, thank you. You said melody is the easiest, why is that? Do you know d r m f s l t d' before?

D：I know the d r m f s l t d'.

我：Do you play the piano?

D：No. I don't leant it before.

我：But it's very nice that you know d r m f s l t d' even you don't play the piano. So...um...why do you think bass guitar is the hardest part?

D：Because it is hard for me to focus.

我：I see...hard for you to focus. When you rate yourself of playing accurately, you only choose two, because you think you didn't play accurately. What do you think caused the problems? The rhythm? The notes? What do you think made you play not accurately?

D：Maybe is the tempo.

我：Right the tempo is very hard. So...do you encounter any problems, for example, record your homework, or use grid notation after class, are there any problems?

D：I can upload homework in email, but I find it hard to take a picture and send it to google classroom.

我：I see...we actually received your recordings, it's very nice, very creative. Miss Wong and Miss Yeung, we loved it. So… how about when you read grid notation, when you are at home, when you read this score, do you think there are any difficulties? For example, oh I forgot what the 1-6 means in smart guitar. Do you encounter this kind of difficulty?

D：Yes.

我：Is it mainly in the guitar and bass part?

D：I don't really know.

我：That's okay. So...um...when you read grid notation and you play GarageBand on your iPad, do you find it difficult that you have to look at the score, and look at your iPad?

D：I need to look at my laptop.

我：Oh your score is on the laptop. Okay...So you need to look at your laptop and look at the iPad to play the music right? So is this difficult?

D：It's sometimes hard, sometimes it's easy.

我：Okay I see. The last question, do you know how to read other music scores? For example, do you know how to read guitar scores, or the drumset scores, like these other kinds of scores.

D：No.

我：So reading Grid notation is first time reading scores? Is that correct?

D：Yes.

我：I see. So do you think it is hard? To play music from a score.

D：It is hard for me.

我：I see. Have you join any music activities before?

D：I learn music in my high school.

我：In music lessons right?

D：It is not related to this.

我：I see. Okay. Really the last question now, I am sorry, I still have one more. When you read Grid notation, when we have our face to face lessons, for example, you are playing the

melody, other classmates are playing the guitar...Do you only look at your line, or you'll also look at others? The lines.

D：I don't look...I don't know.

我：You forgot right? It's so long ago, that's okay. Thank you so much.

1st lesson 2020.09.14
1. Self introduction
2. GarageBand introduction
      2.1 Finding the app on iPad
3. GarageBand guitar introduction
      3.1 Buttons and functions
      3.2 Press and strum guitar chords
4. Google classroom

Homework:
1. Practice press and strum guitar chords

Supplementary video:
1. Garageband introduction
2. Guitar introduction

2nd lesson 2020.09.21

1. Mary had a little lamb
      1.1 Guitar C and G chord
2. Drum set introduction
      2.1 Drum set acronym
      2.2 Pattern 1,2,1+2

Homework:
1. Practice drum set pattern

Supplementary WS:
1. Drum set and its acronym

3rd lesson 2020.09.28 (f2f)

1. Mary had a little lamb
      1.1 Guitar chord numbers on Notation system (1→6,3→6)
2. Drum set pattern
      2.1 Call and respond game
      2.2 Pattern 3
3. Change key and change chords
4. Ode to joy
      4.1 Guitar
5. Listened to Demon Slayer's theme song (GarageBand version)

6. Listened to My little sunshine (Normal version)
7. My little sunshine
      7.1 Guitar

Homework:
1. Add numbers on guitar chords to indicate strumming direction (My little sunshine)
2. Create drum patterns (My little sunshine)

Supplementary WS:
Ode to joy, You are my sunshine, Let it go music score

4th lesson 2020.10.05 (f2f)

1. Ode to joy
      1.1 Guitar
2. Melody
      2.1 Changing to major scale
      2.2 Changing octave(C4,C3)
      2.3 Solfage
3. My little sunshine
      3.1 Melody and its rhythms
      3.2 Bass guitar
      3.3 Ensemble (Picked students' creation from last week's homework)

5th lesson 2020.10.12

1. My little sunshine
      1.1 Melody
2. Let it go
      2.1 Melody and its rhythms
3. How to hand in homework

Homework:
1. Record Let it go melody or the first two bars (want to see if students know how to hand in homework)

Supplementary video:
Homework hand in tutorial

6th lesson 2020.10.19

1. Let it go
      1.1 Melody

1.2 Guitar (Hamburger simile)

Homework:
1. Let it go melody
2. Let it go guitar

7th lesson 2020.11.02

1. Homework feedback
2. Chinese drums
        2.1 Introduction
        2.2 Acronyms
        2.3 Pattern 1,2,3

Homework: Create Chinese drum pattern for Kojo no Tsuki (written)

8th lesson 2020.11.09

1. Chinese drum
        1.1 Pattern 1,2,3
        1.2 Excellent homework demonstration
2. Pipa
        2.1 Pentatonic scale
        2.2 Do's position
        2.3 String bending (glissando)
        2.4 Rapid strum (sao)
        2.5 Tremolo (lunzi)
        2.6 Pipa chord style
3. Erhu
        3.1 Ornaments
        3.2 Horse call
        3.3 Rubato

Homework: Record the Chinese drum pattern that they created

9th lesson 2020.11.16

1. Homework feedback
2. Add another line of music (Chinese drum+Pipa)

Classwork:
Room 1: Students who already created Chinese drum pattern finish the classwork of adding one pipa melody line

Room 2: Student who haven't finish creating Chinese drum pattern or have technical difficulties

10th lesson 2020.11.23

1. Smart drums
2. Beat Sequencer