

# **The Music Application Handbook for Music Teacher at Jimo District No.2 Middle School**

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## **Abstract**

Jim District No. 2 Middle School still uses traditional teaching methods such as PPT presentations, CDs or video playings, and online media materials. Resulting in poor music teaching results; students lack a deeper understanding; students' motivation and participation in learning are low; and learning efficiency is also very low. Applying technology to music learning as a teaching tool will give students a better understanding of music skills. Teachers will also develop more modern teaching skills.

This research focuses on developing teachers' teaching skills. The objective of the research was 1) to study the music textbook in Grade 8 at Jimo No. 2 Middle School. 2) to study the music application from key informants, and 3) to write the music application handbook. Qualitative research methods were used in this research. Review the literature from documents, academic works, and related research. Gathering the data from two groups of key informants, such as teachers and music application experts, through in-depth interviews to write a music application handbook. Three experts evaluated this song book to check its quality. The researcher found that the music textbook in grade 8 student at Jim District No. 2 Middle School aims to cultivate students' musical literacy and comprehensive quality. Through rich and diverse teaching content and methods. Emphasis on the basics of music, knowledge, skills such as rhythm, speed, music types and expression. This will lead to the integration of content with technology to enable teachers to develop more modern knowledge and teaching. This Music application handbook for teachers is an integration of music and technology, which 3 experts recommend 5 interesting music application and agree to choose Garage Band in this handbook. The Handbook is divided into 1. Overview of Handbook 2. GarageBand Music Applications 3. GarageBand for Teacher and 4. Music Production. This handbook will become a hands-on music application for Grade 8 at Jim District No. 2 Middle School, which makes it easier for teachers to master the application of music. and improve teaching methods and modern teaching results.

**Keywords;** Music Application; Handbook; Music Teacher; Jim District No.2 Middle School

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## Introduction

Government policy increasingly supports music education through funding, teacher training programs, and curriculum development, reflecting the vital role of music in personal and social development (Ministry of Education, 2018). These things will change China's music teaching method. Music teaching mainly combines rote learning and performance teaching. Traditional music education often involves learning through repetition and memorization, which is believed to instill technical proficiency. However, contemporary approaches increasingly employ more interactive and student-centered teaching methods, such as the application of music technology and creative music projects, aiming to engage students more holistically. This change reflects the need to find educational trends that adapt to the times and update relevant educational methods.

In the current educational framework, there is a strong focus on incorporating popular music into the curriculum to help students connect with their cultural heritage. Common instruments in pop music include electric guitars, electric basses, drums, keyboards, and various electronic synthesizers. (Ourmusicworld, 2024) The style of the instruments reflects the style orientation of pop music. The melody part also needs to be simple and easy to remember, including the speed and rhythm of the song. Settings, coupled with the fact that modern pop music production involves a variety of technologies such as mixing, production, and audio editing, make the integration of music application software particularly important for pop music teaching. Using technology to participate Can meet different needs and learning styles.

Current music institutes in China, If located in an area that is socially and economically prosperous. Music teaching will have the application of technology to play a role in teaching to increase learning efficiency. But in more remote areas, music teaching still uses traditional teaching methods are available directly from the source. This makes music teaching ineffective and causes students to lack a deeper understanding.

Jimo District is a small town of Qingdao City. Most of Jimo is a relatively backward town that combines traditional agriculture and industry. There is still a great lack of new teaching methods, so a long-time school in Jimo District had to rely on PPT and CD teaching materials as the main means of demonstration. This method is often solitary, boring, and lacks student interest and participation. This can result in reduced student interest in music lessons and affect learning outcomes; for example, modern music genres such as pop music are often not adequately covered. and the teaching content may not be detailed and clear enough. As a result, students lack the opportunity to study fully. Therefore, that should use technology or nearby things in order to easily adapt it to current teaching.

The relevant education policies issued by Qingdao City have given clear instructions, hoping that all districts and counties will give full play to their subjective initiative and actively carry out the task of innovating and developing new teaching methods. It also requires all districts and counties to learn more from advanced urban teaching models and methods and to create and develop new-era teaching ideas. This paper studies the music application handbook, which coincides with the policy of Qingdao Municipal Government.

The widespread use of application software today has changed many aspects of our daily lives. The rise of these apps reflects the broader impact of technology on various fields, including education. There are various music application creation software programs that are popular in various mobile device fields, and I think these music applications can be applied to

music teaching. At work, technology tools can not only enhance traditional learning but also ensure music education is more adaptable and inclusive.

From the background, the concept of utilizing technology in music education emerged to assist students in understanding the elements of music in greater detail. Teachers can employ technology as a medium to create clear learning content, examples, and characteristics of music, enabling students to engage with learning in diverse ways and stimulating increased interest. The manual developed by the researcher focuses on the content of textbooks for Grade 8 students, aiming to help teachers comprehend technology and create educational media for teaching. This manual distinguishes itself from general user manuals by providing more in-depth details about music. It represents not only an advancement in educational methods but also a catalyst for transformation in music education.

## **Research Objectives**

1. To study the music textbook in Grade 8 at Jimo District No.2 Middle school
2. To study the music application from key informants
3. To write the music application handbook

## **Literature Review**

The researcher reviewed documents and related research summarized as follows;

Fang W. et al. (2022) found that the development of the Internet, people's learning methods have changed. This paper studies the design of music education software APP based on convolutional neural network, aiming to design an online music education APP that can be used for music teaching activities. The study first introduced the relevant concepts of convolutional neural network and analyzed the design characteristics of music education APP. Then, the music education APP was modeled through convolutional neural network and technical dimension indicators were set. The final experiment showed that 78.4% of students believed that using APP for music learning cultivated their interest in learning instrumental music and greatly improved their enthusiasm for learning.

Cui Feng (2018) found that in the context of the new curriculum reform, music teachers play an important role in cultivating students' musical literacy. With the development of science and technology, music teaching has begun to infiltrate modern information technology. This paper studies the application of MIDI music production in music teaching, emphasizing the role of improving the quality and efficiency of music teaching in the context of the new curriculum reform.

Su Jin Sung (2016) found that, this study aims to explore how primary school teachers use music for classroom teaching and management, as well as their views on the effectiveness of music use. The results show that respondents reported using music for classroom teaching more often than for management. In terms of classroom management, teachers most often play children's songs to enhance students' positive emotions; in classroom teaching, music is frequently used to improve students' learning motivation. Although most respondents believe that music has a positive impact on students, they still face difficulties in using music in the classroom. Respondents expressed the need for music-related training or materials to support teachers in using music effectively.

## Research Methodology

This research used qualitative research by interviewing teachers who provided key information and three experts who evaluated the manual to assess its quality results to ensure its efficiency and can be used as follows;

1. Literature Review: The researcher studied a book, article, thesis, and research report.

2. Interviews: The researcher interviewed for 2 groups; first, three teachers as key informants. Second, the key informants with knowledge about music application and music teaching and them as an expert for qualities check research tools and handbook's evaluation. First group, three teachers as key informants who teach the music course in Grade 8 at Jimo District No. 2 Middle School at Jimo district, Qingdao City, Shandong Province of China. The key informants have criteria and must have qualification as follows: select music teachers to teach in grade 8 from Jimo district No. 2 Middle School, have a master's degree or higher, and engaged in middle school music teaching more than 5 years. The Three teacher as key informants are following:

1. Teacher Zhang He, teacher in the school, has 5 years of teaching experience and is more receptive to new music teaching methods

2. Teacher Wang Lei, a senior teacher in the school, has 15 years of teaching experience and has profound teaching experience for students and classes.

3. Teacher Zhang Min, the head of the music teaching group, has 24 years of teaching experience. She is one of the responsible persons in the revision of the teaching syllabus and can point out the errors that should be corrected and the correction methods in a timely and correct manner.

Another group for interview as key informants and expert, because has expertise in music applications and music teaching. The researcher will determine the characteristics and conditions of these groups must to qualification and conditions as described in the next section. They must be have criteria of this group as follows; must be a professor or associate professor, has well-known in music application and music teaching, and must have more than 10 years music teaching experience. The Three teacher as key informants are following:

1. Professor Xie Ji, Dean at the School of Modern Music at Xinghai Conservatory of Music, with more than 20 years of music teaching experience and expertise in music application using.

2. Professor Zhu Lei, Dean at the Department of Modern Instrumental Music and Electronic Composition Shanghai Conservatory of Music. with more than 10 years in music teaching experience and expertise in music application using.

3. Associate Professor Qi Siyu, the popular music production and singing from Xinghai Conservatory of Music, she is an outstanding teacher with experience in teaching students and expertise in music application using.

### 4. Research Tools

4.1 Interview form, for collect the data, the researcher devided for two group interview key informants as Music teacher in school and expertised in Music Application. First group, for teacher at Jimo No.2 middle school, Three experts found that the interview questions were consistent with the research objectives. The interview form of key informants scored 0.94. The results are effective, can be used for interviews. Second group, for music application and music teaching teachers, Three experts found that the interview questions were consistent with

the research objectives. The interview form of key informants scored 0.83. The results are effective, can be used for interviews.

4.2 Verification form, for three experts verified the handbook. The researcher wrote a manual for using music applications for teachers to provide quality teaching materials for students. Experts have assessed the quality of the handbook with a score of 4.36 (From a full score of 5) Calculated as a percentage 87.20 The result is a quality manual. meets the objective It can be used to gain musical benefit.

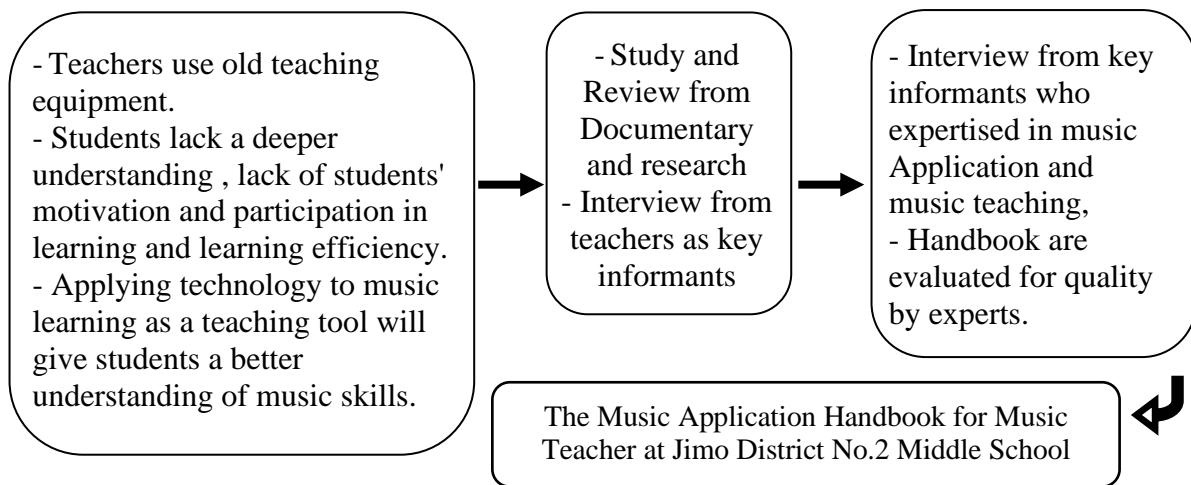
#### 5. Data Collection

The researcher studied relevant literature and used in-depth interviews's key informants to collect the data. For in-depth interviews that used the interview form, they were verified with IOC tools by experts. Analyze and summarize the key informant's answer for writing the music application handbook.

#### 6. Data Analysis

The researcher summarizes the information from the study and analyzes the knowledge from key informants, which can be separated into: The Music content for Grade 8 student at Jimo District No.2 Middle School, Music Application, and Music teaching for student.

### Research Conceptual Framework



**Picture 1** Research Conceptual Framework

### Research Scope

This research studies the music content from textbooks of students in Grade 8 at Jimo District No. 2 Middle School, Jimo city, Qingtao of Shandong, China. For writing a music applications handbook for teachers to use to create teaching materials for students. And give examples of song according to the advice of the main informant.

## Research Results

### 1. Study the music textbook in grade 8 from Jimo District no. 2 Middle School.

In China, music courses aim to enhance students' aesthetic sensibilities and cultural knowledge through exposure to diverse musical genres. The primary objective of eighth-grade music education syllabus is to foster students' musical literacy and enhance their abilities in aesthetic and artistic expression. The researcher studied music textbooks and found that the Music Textbook of grade 8 student has 2 textbook and including the content organized into 13 Units comprehensive chapters, each focusing on a distinct aspect of music education. The Music contents are including: understanding of music performance, emotional expression, theoretical knowledge, and various musical genres. By exploring the basics of music performance, students develop an awareness and understanding of vocal and instrumental music, enhancing their ability to recognize and appreciate different forms of musical performance. This foundational knowledge is crucial for building their overall musical literacy.

In Addition, the interview's information from teachers can be summarized commented that the basic elements students are: emphasis on focused on simple notes, rhythms, and beats. That's help students understand the different types of rhythms which correctly connects theoretical knowledge and practical skills. Additionally, the manual should include modern music genres such as pop, jazz, funk, rock, and R&B. This will help students appreciate and understand the composition, instrumentals, and general melody and rhythm of these genres. By incorporating these elements into the music application manual, the key information providers aim to create a resource that is both informative and practical, leveraging technology to make music education more engaging, interactive, and effective.

### 2. Study the Music Application from Key Informants

From the interview data it was found that the music applications that key informants recommend are GarageBand, FL Studio Mobile, Caustic 3, KORG Gadget 2 , and Cubasis 3. out of those 5 software. An opinion that key informants agreed was that Garageband was the best fit. Because it has features, components and ease of use. This Garageband application is easy to use, making it suitable for beginner users because stands out as being best suited for teaching music and writing music application manuals for teachers. The user-friendly interface and accessibility make it especially easy for beginners to use. Using technology to help develop teaching will give teachers more modern musical skills. Know the application of technology to music that will help students gain a greater understanding of music. Choosing a basic music application for beginners must be simple. It's not complicated, so it will make learning more effective.

**Table 1** Comparison of music application features

Content	Garage Band	FL Studio Mobile	Caustic 3	KORG Gadget 2	Cubasis 3
Low Equipment Requirements	✓	-	✓	-	-
Free Software	✓	-	✓	-	-
Many Tones	✓	✓	-	✓	✓
Simple Operation	✓	-	-	✓	-
Clear Interface	✓	✓	-	✓	✓
Convenient File Sharing	✓	✓	✓	-	-
Comprehensive Recording Functions	✓	✓	✓	✓	✓
Good Compatibility with External Devices	✓	✓	-	-	✓

It is also advisable to use samples to increase interest in different music genres, e.g. Pop music: "Seven-Li Fragrance" by Jay Chou, Jazz music: "Chameleon" by Herbie Hancock, Funk music: "2001 funk" by kirilll, Rock music: "Mountains and Seas" by Caodong No Party Band, R&B music: "Bad guy" by billie eilish.

### 3. Write the music application handbook

The researcher studies the principles for guideline to writing the handbook are summarized to 7step as follows; *Step 1*: Clear goal extensive research; *Step 2*: Collect information extensively; *Step 3*: Find out more; *Step 4*: Choose issues that are appropriate and consistent.; *Step 5*: The contents are sequenced to indicate all the various elements.; *Step 6*: Explain various contents clearly; *Step 7*: Designed to be interesting.

First, writing a handbook must be done logically. with a clear goal There is a comprehensive study of information. and is explained step by step for easy understanding. There are also pictures to make it clear. Writing the music application handbook can be devided for four parts;

Part 1 Overview of Handbook: The explains its purpose and scope, emphasizing the need for innovative music teaching methods for teacher and the benefits of technology in education.

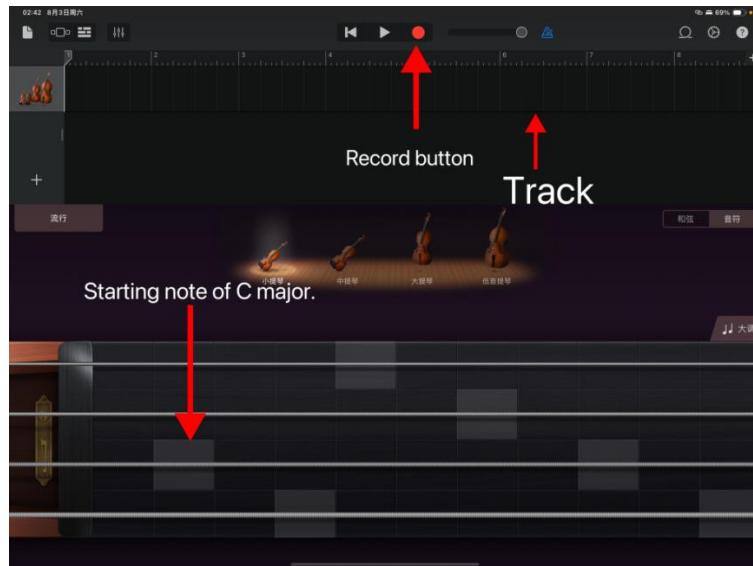
Part 2 GarageBand Music Application: This section describes the features of the application and provides basic usage. GarageBand is a versatile and user-friendly music creation studio developed by Apple. Using the application requires the following hardware: MIDI keyboard, Microphone, Headphones, Speakers.

Part 3 GarageBand for Teachers: This part focuses on applications for teachers. It contains content from the textbooks necessary for Grade 8 students, which is a good practice in creating characteristics and examples of good teaching materials. Teachers will learn the general functionality of the application. Through content from the textbook, it emphasizes the basics of music such as melody, rhythmic patterns, and beats to help students understand the content easily. The researcher was explained the steps in detail with pictures. **Example**, Creating Intensity (dynamics).

Volume Automation: Use the volume automation feature to show how intensity changes affect the emotion of a piece of music. Students can draw volume curves to create crescendos and decrescendos.

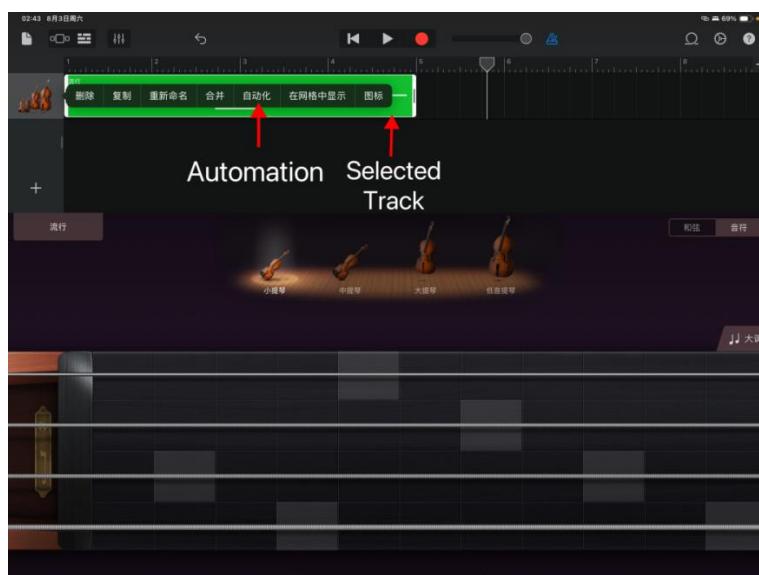
Steps: 1. Open GarageBand and create a new project.

2. Select a string or long instrument
3. Record a C major scale



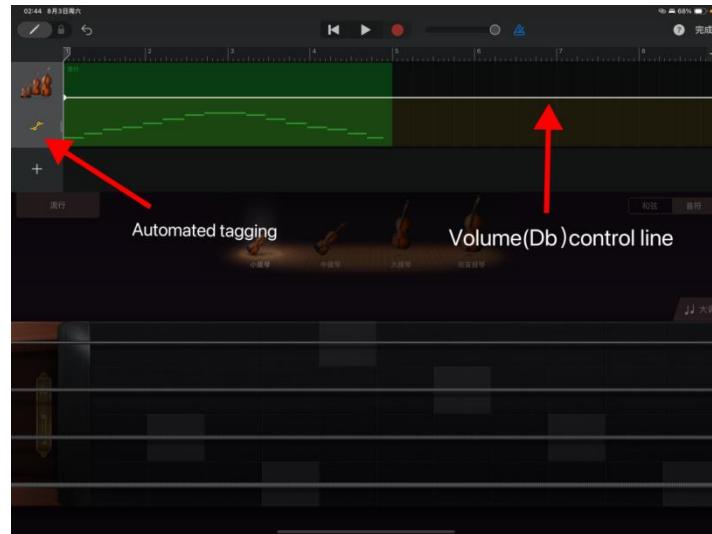
Figure, 1 String selection interface

4. Select the track you want to adjust.
5. Click the Automation button.



Figure, 2 Track adjustment interface

6. Draw volume changes directly on the track to create dynamic changes.

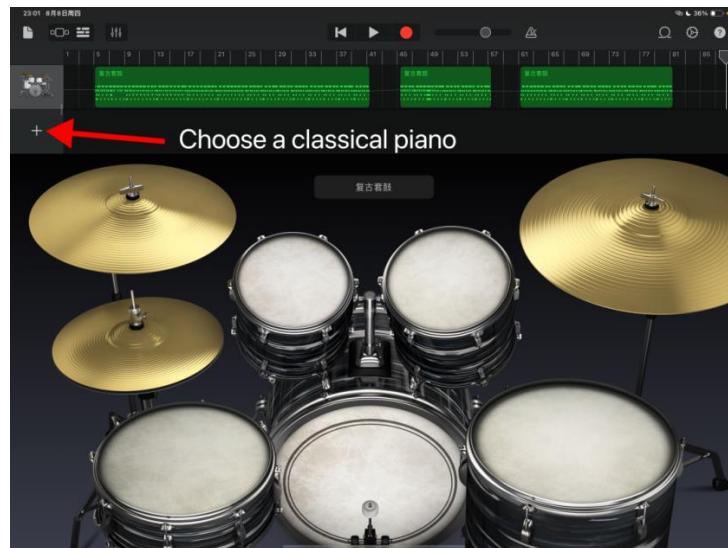


Figure, 3 Track audio adjustment interface

Part 4 Music Production: This part presents a step-by-step guide to conducting a music production project using GarageBand. This example illustrates the functionality of the application and provides a hands-on approach to learning. This covers sample songs recommended by key informants. Example, The create an accompaniment of Pop Music:

**Piano chords:**

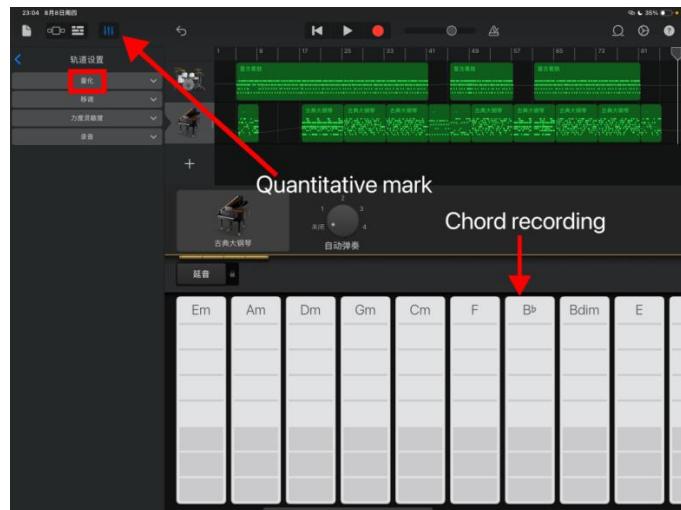
- Click the "+" sign to add a new software instrument track and select "Classical Piano".



Figure, 4 Add drum kit

### Record chords:

Use a MIDI keyboard or on-screen keyboard to record chords such as G, Bm, Em, and D. When recording each chord, you can use GarageBand's quantization function to make the rhythm more accurate.



Figure, 5 Keyboard comprehensive page

### String part:

Record background strings: Record the string part, paying attention to the harmonious combination with the piano chords. You can use long and short notes of the strings to enhance the layering of the music.

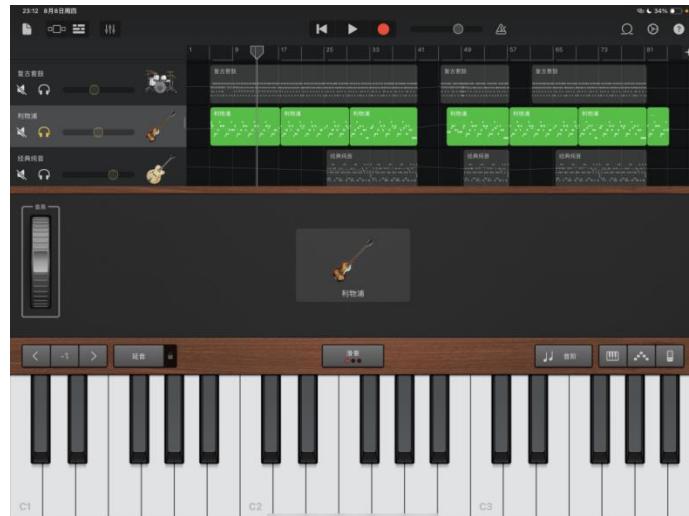


Figure, 6 String recording

### Bass line:

Record the bass line:

Record a simple bass line following the chord progression. You can refer to the bass part of the original song to ensure the consistency of rhythm and melody.



Figure, 7 Bass recording recording

### Make drum beats

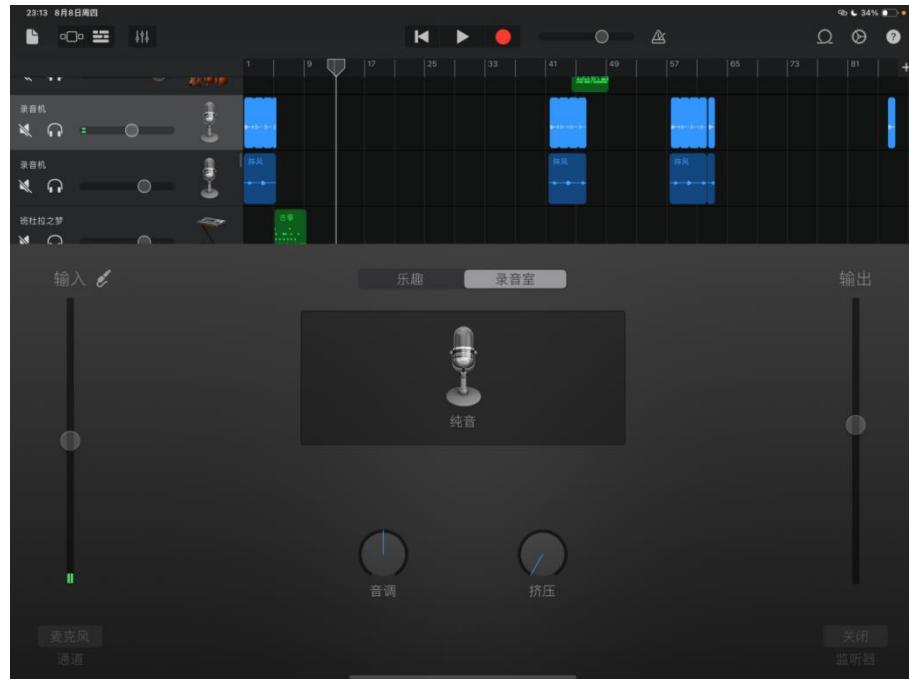
Write drum beats: Use the drum machine to write simple drum beats, such as basic four-beat rhythms. Pay attention to the coordination with other instruments when writing drum beats to avoid being too complicated and affecting the overall effect.



Figure, 8 Drum interface

### Main melody

Record the main melody: Use a MIDI keyboard or on-screen keyboard to record the main melody of "Seven Miles of Fragrance". Pay attention to the length and strength of the notes, and try to keep them consistent with the original song.



Figure, 9 Voice recording interface

### Add vocals

Prepare for recording:

- Insert an audio track for recording vocals.
- Use high-quality microphones and headphones to ensure the recording effect.

### Recording vocals:

- Sing the lyrics of "Qilixiang" and try to imitate the emotions and tones of the original singer.

- You can record multiple times and choose the best recording clip.

### Processing vocals:

- Use GarageBand's sound processing tools, such as reverb and delay, to enhance the vocal effect.

- Adjust the volume of the vocal track to match it harmoniously with the accompaniment.



Figure, 10 Figure, Recording adjustment interface

Music applications handbook for teachers, it's a handbook that helps teachers provide quality teaching materials for students and insert examples for better understanding. Evaluation of the quality of this handbook by experts found that it had a score of 4.36 out of 5, calculated as a 87.20 percentage, showing that the manual is of quality. according to purpose Can be used to benefit music

## Discussion

The researcher studied the music content of Grade 8 students at Jimo District No.2 Middle School found that they focused on important basics of music such as rhythm and beats, consistent with Antoni Pizà (2023) said the beat is often considered the foundation of a song, and is used by listeners to move or dance to the music. And Rhythm can be used to create different styles of music, such as the steady beat of rock and roll or the complex rhythms of African music. Using the Music application has been found to help create interest and attract better learning because when students are interested, it will lead to good musical skills. For current Music Applications have different factors depending on each person, in line with Erkan Demirtaş (2021) said mobile application usage levels changed according to gender but did not change according to grade level, musical instrument type, and operating system used. But the results of using the application will help develop learning and attract more attention. It was also found that it was consistent with Fang W., Quiles O. L., Yangzhan H. said the study highlights the potential of such applications to cultivate students' interest in learning instrumental music, with 78.4% of students reporting an increased enthusiasm for music learning. Therefore, the guide to using music applications for teachers will be useful and up-to-date. By bringing technology into the teaching. and help develop students' musical skills. As the saying by Supaporn Chimnoo (2022) said Students who learned with video lessons had higher academic achievement before learning than before learning. And video lessons make students more skilled at music.

## Suggestion

### 1. Theoretical Suggestion

The initial study was limited in scope and the sample size of teacher interviews was small. Expanding the scope to include more educators from different backgrounds would provide a more comprehensive understanding. Rapid technological advances also pose challenges, as some content can quickly become outdated and requires frequent updates. The manual also needs more original research (e.g. classroom experiments and recommendations) to enhance the theory and technology.

### 2. Policy Suggestion

Balancing technical details with user-friendly instructions is difficult, and some sections may be too complex for users with limited experience, suggesting a need for further simplification. Despite these shortcomings, the manual emphasizes the important role of technology in modern music education and provides a framework for future improvements.

### 3. Practical Suggestion

Future research should be expanded to cover different levels of education, such as primary and secondary music programs, to tailor technological tools to different age groups. A larger and more diverse sample of educators and students from a variety of settings and backgrounds would provide a more comprehensive understanding of the challenges and opportunities in music education. Research into the professional development needs of music teachers is essential. Understanding the specific training and support needed to effectively use technology in the classroom can inform the design of better teacher education programs.

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