

MIDI as a medium for improving student's vocal abilities in the choir learning

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ABSTRACT: This study aims to investigate the effect of MIDI (*Musical Instrument Digital Interface*) learning media in choir teaching for improving the vocal abilities of students in SMK (Vocational High School) Kartika Wirabuan Makasar, who lack a proficient standard of music knowledge. In practice, students are given sheet music, instruments are played using MIDI Software, and then they practice together. The study concluded MIDI has a very important role in increasing the vocal ability of students in choir learning. Playing instruments produced from MIDI software is very effective at improving students' vocal abilities compared to reading sheet music alone. MIDI accelerates students' understanding of choir material that is taught so students can learn more easily and pleasantly.

1 INTRODUCTION

Education is a conscious and systematic effort, carried out by people given the responsibility to influence students so that they align their moral character and behaviour with the ideals of education (Munib, 2004). Therefore, education is expected to help students achieve maturity and independence. Various activities are carried out to support education in Indonesia, such as the recent replacement of the curriculum and developing facilities and infrastructure in the world of education itself.

Learning should be fun for students because in these activities, there will be interaction between students, educators and learning resources in a learning environment. Music learning in schools is always praised for its capacity to provide aesthetic experiences in the form of creative and appreciative activities. Students can use practical activities to achieve aesthetic experience. Students can undergo a creative process by responding to stimuli provided by the teacher, while appreciation of music is obtained by observing and analysing learning materials. However, learning can be a very intimidating prospect for students, due to limitations in students' abilities and the absence of sufficient learning support.

The implementation of learning is the result of integration of several components which have their own functions; this is intended so that the achievement of learning objectives can be fulfilled. The main characteristic of learning activities is interaction, which occurs between students, their learning environment, teachers, peers, tools, learning media and/or other learning resources. Other characteristics of learning are related to the components of learning itself such as goals, materials, strategies, media and evaluation.

Almost all human work requires technological assistance. Technology was developed for education in the form of educational media. Such media functions as an intermediary to channel both audio and visual information to the recipient. The media used in teaching is called learning media. Rapid technological developments bring changes to the role of the teacher as a messenger of the subject matter. The teacher no longer acts as the only authority of knowledge in learning activities. Learners can obtain information from various media and learning resources such as magazines, modules, radio broadcasts, television, and digital media.

According to Suherman (2009) media are a channel used for communication. According to Latuheru (1993) media used in learning in Purbasari can improve the quality of

education efficiently and effectively. Media is also one of the factors that supports success in learning at school because it can help the delivery process from teacher to student or vice versa (Arda et.al, 2015). This is where the role of art is tested so that it can be a fun learning forum for students. Learning media is considered able to maximize the efficacy of a teacher to deliver learning material compared to in-person or writing. There are various media that can be used according to the user's needs and capacity. For choir learning, MIDI software was chosen for students at SMK Kartika Wirabuana Makasar due to their musical limitations. MIDI is software that plays various musical instruments, one of which is the piano. This MIDI software media will function as an intermediary that transmits audio information to the recipient. MIDI is expected to facilitate choral learning to be more meaningful and enjoyable.

2 METHODOLOGY

Qualitative research was carried out and described. Research procedures involved collecting data on choir learning using MIDI as the learning medium. The students under study are from SMK Kartika Wirabuana Makassar, who participated in choir learning as an extracurricular program at school. The study investigates how effective the use of MIDI is in these learning activities. In this study, researchers who were also extracurricular teachers at SMK Kartika Wirabuana were directly involved in conducting the research. According to Margono (2000), the task of the researcher gives questions about research and at the same time as observers in the process. Other supporting instruments are observation.

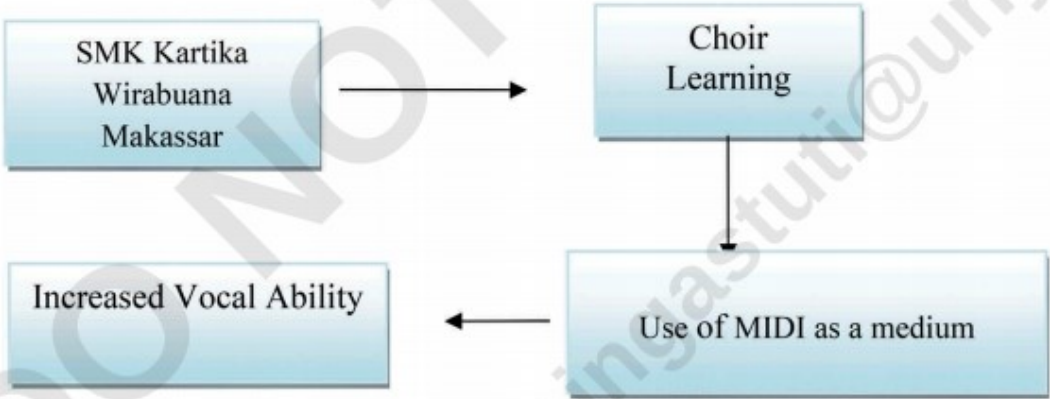


Figure 1. Research process.

3 RESULT & DISCUSSION

3.1 Result

3.1.1 Learning

In article 1 point 20 of Law Number 20 Year 2003 concerning the National Education System, "Learning is the process of interaction between students and educators and learning resources in a learning environment." Muhaimin (in Riyanto, 2010: 131) says that, "Learning is an effort to teach students to learn. Learning activities will involve students learning something in an effective and efficient way." Gagne, Briggs, and Wager (in Winataputra, 2014: 19) state, "Instruction is a set of events that affect learners in a way that learning is facilitated." Learning is a series of activities designed to enable the learning process to occur in children.

While Morrison (2009: 111) says, "Learning refers to the cognitive and behavioural changes that result from experiences. The experiences that make up the curriculum are the core of the learning process and experiences you provide for children should be based on a theory or theories of how children learn."

Learning refers to cognitive and behavioural changes that result from experience. The experiences that shape the curriculum are at the core of the learning process. The experiences you provide children are based on theories about how they learn.

Kimble (in Hergenhahn & Olson translated by Wibowo, 2009: 8) also says, "Learning is a change in behavior or potential behaviour that is relatively permanent that comes from experience and cannot be attributed to temporary body states such as conditions caused by illness, fatigue or medication."

Learning is a process of interaction between educators and students in a learning environment and using previously prepared learning resources to enable the learning process in children and at the end of learning activities cognitive and behavioural changes occur in children cognitive and behavioral changes come from things experienced by children and are relatively permanent.

3.1.2 *Media*

As for some media meanings by Ahmad (1997), including:

- a. Media is all forms of intermediaries used to convey ideas to the recipient.
- b. Media is an intermediary used to carry or convey a message, running between communicators and communication.
- c. Media are all physical tools that can run messages that are stimulating and appropriate for learning, for example: print media, electronic media.

From some of the interpretation above, it can be concluded that educational media in general are educational facilities or infrastructure that can be used as learning resources, and to support students to best achieve learning goals.

3.1.3 *Choirs and vocals*

According to Sitompul (1986: p.1), "Choir is a collection of a number of singers grouped according to the type of voice". This grouping is generally based on two sound criteria; the pitch and the tone of the voice or the timbre of the singer. Choir is a term that refers to a music ensemble comprising singers who perform music. A choir can also be defined as a collection of singers grouped by type of voice. For children and women, the types of voice include: soprano, mezzo soprano, alto. For men, the types of voice are: tenor, baritone and bass (Sitompul, 1986: 1).

The technique of singing for both solo singers and choir singers is the same. The effectiveness a soloist is determined by the individual, while the effectiveness of the choir is determined by technical mastery, cohesiveness and cooperation built in the choir itself (Listya, 2012: 27).

3.1.4 *MIDI (Musical Instrument Digital Interface) software*

Software is a special term for data formatted and stored digitally including computer programs; documentations and information that can be read and written by a computer. In other words, intangible computer parts are referred to as software. MIDI is a language used by electric music instruments, controllers, computers, and similar devices to communicate. MIDI captures event notations and changes in attributes and tone accents, encodes them into digital messages, and sends the code as a message to other devices to regulate the resulting sound and its parameters. So, MIDI software is interpreted as the embodiment of MIDI which originally existed in the form of an object or physical entity and has manifested into a digital program or application to facilitate music exploration.

In the world of music (including vocals), some software applications that transfer visual files to audio are used to facilitate music activities. Applications that are often used in the realm of MIDI, especially music and also vocals, include Sibelius, Encore, Groovy music, Auralia, Musition and others.

3.2 *learning process using MIDI software*

Choir learning, which usually involves students reading sheet music, is now carried out in combination with learning media in the form of music applications or software, in which there are components of a musical instrument in digital form called MIDI. One of the music application programs used is Sibelius. Sibelius is a special software program for typing musical notations in the form of musical notes.

Sibelius can edit the sheet music and play the results of the song before printing. In addition, musical notes can also be written without typing but by playing the piano or guitar contained in the program. The type of music Sibelius's compositions generate include rub instruments, wood-wind instruments, brass instruments, percussion instruments, guitar, piano, vocals, etc.

The display of Sibelius is as follows:



Figure 2. Example of MIDI software (Sibelius).

In teaching choir using MIDI on Sibelius as a learning medium, students are played MIDI music as a guide for singing are observed very effective to support the implementation of success in the choir learning process. The learning process of using chorus MIDI is described as follows:

1. First, students are given instructions and the choir learning process that uses MIDI as a learning medium is explained.
2. Then students are given sheet music that is taught as an initial guide to singing. In this process, the teacher is expected to provide as simple an explanation as possible so students can understand the activities.
3. The next step is to play the MIDI file, which is played according to the sheet music provided by the teacher. The MIDI played in this activity used a piano instrument that had previously been programmed using the Sibelius software.
4. After playing the MIDI, students are instructed to pay attention to the sheet music so that they can understand the song being played.
5. After listening, the students are then asked to sing without the supporting MIDI.
6. Finally, the MIDI was played back and the students sang together accompanied by the MIDI music.

3.3 *The role of MIDI media software in improving students' vocal ability*

Choir learning using MIDI software is aimed at helping teachers and students during the learning process. With Sibelius, the teacher only needs to listen to the students the instruments that have been made while paying attention to the existing sheet music.

Based on the description above, the role of learning media are:

1. As a tool to clarify learning material.
2. As a source of questions and stimulation of student learning.
3. Learning resources for students. (Sudjana & Rivai, 2010)

Benefits of Learning Media:

1. Teaching lessons becomes more standard.
2. Making the learning process more interesting so that students can remain attentive to the class. Message clarity and coherence, the appeal of changing images, the use of special effects that can lead to curiosity cause students to think, all of which indicate that this method of teaching is motivational and increases the interest of students.
3. Making the learning process more interactive.
4. Improve the quality of student learning. (Arsyad: 2003)

Based on several opinions above, it can be concluded that the learning media has several practical benefits, including:

1. Concretizing abstract concepts, to reduce verbalism. For example, by using images, schemes, graphics, models, and so on.
2. Arouse motivation, so that it can increase the attention of individual students because the course of the lesson is not boring and monotonous.
3. Functioning of all students' senses, so that weaknesses in one of the senses (e.g. the eyes or ears) can be balanced with other senses.
4. Clarifying a theory or concept that is difficult to explain using other methods. For example, to provide knowledge about the pattern of the earth, children are not likely to experience directly. Then the globe was made as a model of the globe.
5. Increasing the likelihood of direct interaction between students and their environment. For example, by using recordings, experiments, field trips, and so on.
6. Providing uniformity in observation, because the understanding of each student will vary depending on the experience and intelligence of each student.
7. Presenting learning information consistently, which can then be repeated or stored according to needs. For example, in the form of recordings, films, slides, pictures, photos, modules, and so on. (Muhson, 2010).

Learning media can be a vehicle for channelling messages and learning information. A well-designed and correct learning media will greatly support students in their efforts to digest and understand the subject matter. Media functions in learning activities are not just teaching for the teacher but as carriers of information/messages of learning. Each type of learning media has its own characteristics, advantages and disadvantages. That is why it is necessary to have systematic planning on the use of each learning media.

Reflecting on the process of learning choirs with MIDI on Sibelius, it is clear that a teaching process that was originally quite difficult, involving a teacher teaching sheet music, is greatly simplified through the use of MIDI. The presence of MIDI media in the choir learning process makes the learning process more interactive, interesting, and improves the quality of learning. The role of MIDI learning media in choir is an innovation that is expected to continue to train sensitivity, stimulate musicality and improve students' vocal abilities.

4 CONCLUSIONS

Here, learning media are used as support tools that function to assist the teacher in delivering materials to students. Realizing the importance of the role of learning media in the education process, SMK Kartika Wirabuana has also used MIDI learning media in teaching and learning activities, especially choral learning which aims to improve students' vocal abilities. The learning process is carried out as well as learning in general but is use by MIDI technology. Students are given choir learning material with piano MIDI accompaniment in the Sibelius software. After its use in learning, a very significant effect can be observed. Demonstrated by

the fact that the enthusiasm of the students in the learning process increases. From the beginning to the end of the process, students seem to focus more on receiving choir material. MIDI that is played makes students concentrate more on choir singing, significantly reducing teaching time. Based on these results, we can observe the important role of a learning media in the success of the choir learning process, so that the learning objectives of creating interesting and meaningful lesson can be achieved.

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