

Gamelan Touch as an Innovation of Regional Sound Arts Interactive Learning Media

Abdul Aman*, Tri Joko Raharjo, M. Khafid, Teguh Supriyanto

Universitas Negeri Semarang, Jl. Kelud Utara III, Petompon, Kec. Gajahmungkur, Semarang City, Central Java 50237, Indonesia

*Corresponding Author: abdulaman1983@students.unnes.ac.id

Abstract. The 2013 and independent curricula provide a special domain for developing the region's potential where the education unit is located through local content subjects. Regional Voice Art or SSD is a local content that raises learning material for *tembang macapat* and *tembang dolanan*. The empirical reality in the field of SSD learning experiences many significant obstacles. From discussions with several fellow teachers through the KKG forum, it was found that teachers still had difficulty teaching this SSD material. Some fellow teachers have difficulty developing teaching materials, so SSD subjects are rarely taught. It is quite difficult if there are no tools to teach *tembang macapat* or *tembang dolanan*. The tones used for these songs are not solemnized tones but use *slendro* and *pelog* gamelan tunings. The existence of gamelan in the researcher's school and surrounding environment is still rare. Given that gamelan is also not cheap, so for small schools and far from the city will be an obstacle for the school. Based on these conditions, the author made an innovative media with gamelan touch or *gasen*. The process of making this touch gamelan by utilizing plywood to be designed into a gamelan shape and connected to a chip programmed on a computer. It is utilized as an SSD learning media. This media is then distributed to teachers in the Teacher Working Group forum to be disseminated and utilized in helping teach regional sound art materials (SSD).

Keywords: Local Sound Arts; Gamelan Touch; Learning Media; KKG

INTRODUCTION

The potential of one region will certainly not be the same as the potential of other regions. (Syukri, 2019). This dissimilarity is a source of cultural wealth that characterizes the region. Some are characterized by tourist areas, cultural areas, industrial areas, agriculture, and so on. The form of curriculum packaging that regulates this potential is local content subjects (Abdullah, 2020). The time allotment provided for local content in the 2013 Curriculum and the Merdeka Curriculum is 72 JP/year or the equivalent of 2 JP/week. (Rahmadayanti & Hartoyo, 2022). The local content curriculum is grouped into three, namely provincial local content, district local content, and school local content.

As one of Indonesia's provinces, Central Java applies this local content as an important lesson (Sukarno, 2021). So that starting from the elementary school level to the high school level, they will receive local content lessons. Javanese language lessons are compulsory provincial *mulok* lessons for the elementary school level (Alfiah et al., 2020). For *mulok* districts, the lessons given will vary from one district to another. For *mulok* district research areas, what is enforced in Rembang Regency is the Regional Sound Art.

Meanwhile, school *mulok* lessons will also differ from one school to another. Local content

by uniformly providing regional sound art content for one district area (Wardhanika et al., 2022). Rembang Regency, which consists of SD/MI spread over 14 sub-districts, will receive *mulok* regional sound art for two hours of lessons for one week.

Regional Sound Arts, or SSD, presents learning materials for *macapat* and *dolan* songs. (Arisyanto et al., 2021). *Tembang* in Javanese means singing (Wasisto, 2020). This sublime regional wealth receives special attention to maintain and develop its existence. It is through this song that it is hoped that character formation will be formed because the positive charges in this poem will affect students' daily lives (Ervanda, 2021). Besides this, it is hoped that this SSD will give its color as a special characteristic of the culture that Central Java owns in general.

The empirical reality in the SSD learning field experiences many significant obstacles (Rochadiana et al., 2022). From the results of discussions with several fellow teachers through KKG forums and the like, it was found that teachers still had difficulty teaching SSD material. The delivery of this material is directly related to the songs that students must be able to sing properly and correctly. But this hope is still not maximal. Students are still in the low category in SSD learning achievement. Impressed, also still lazy and had no motivation to learn this

material. As a result of the low learning achievement of the SSD, it is certain that if there is a similar competition activity in the area where the researcher is located, he will be absent from participating in this activity. Alternatively, if you follow, you haven't been able to speak optimally, and it's enough just to be a participant.

Similar conditions also occurred in the school where the researcher taught. Some fellow teachers even have difficulty developing this teaching material. It is quite difficult if there are no tools to teach macapat or dolanan songs. The tones used for this song are not solemnized but use slendro and pelog gamelan tunings. The existence of gamelan in research schools and the surrounding environment is still relatively rare. Bearing in mind that gamelan is also not cheap, so for a small school and far from the city, it will be a separate obstacle for the school. Based on these conditions, the authors create an innovative media called gamelan touch or gasen. Hopefully, this media can increase students' interest and learning achievement.

METHODS

This research uses the type of action research, with the main concept of research consisting of four main components, namely (a) planning, (b) action, (c) observation, and (d) reflection. (Arikunto et al., 2021). The instrument used in this study is a test. This test measures student learning outcomes on the subject matter presented (Juanda, 2016). Apart from the written test, the other instrument used is the observation sheet. Observers or colleagues use this observation sheet to observe researchers implementing research (Purnomo, 2011).

The learning steps start from the pre-cycle by teaching SSD material conventionally without any media and relying only on lectures. After going through the reflection process, the research continued with cycle 1. In cycle 1, the action of giving gamelan touch media began to be applied. The results of cycle one are reflected in re-plan a more in-depth learning process through cycle 2 (Sani et al., 2020). The research subjects were at SDN 2 Babakkulung in class VI, semester 2 of 2023. In outline, the research design that researchers will carry out is described in the chart as follows:

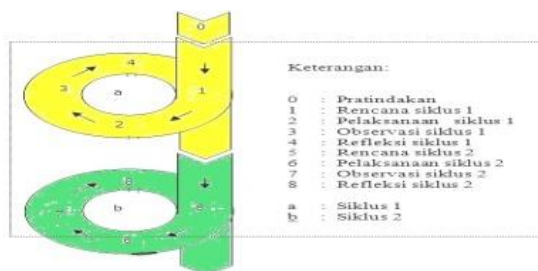


Figure 1. Cycle model according to (Kemmis and Mc Taggart)

RESULTS AND DISCUSSION

The first stage was conducting a preliminary study through discussions, and interviews in the KKG forum. Data obtained that almost 90% of elementary school teachers had difficulty teaching SSD, then continued with observations at the four closest elementary schools to find the exact data in the field. To find the main problem, then carried out a data reduction analysis. The main problem is that teachers have difficulty teaching SSD because they do not have the tools/media to learn SSD. In the next stage, the researcher designed a gamelan media for use in learning.

The design of this work is grouped into three main stages. This stage is prepared separately in advance. After everything is ready, then combined into one and becomes one unit. Powerpoint Media Creation. The main menu for the material's basis is arranged according to the following design.

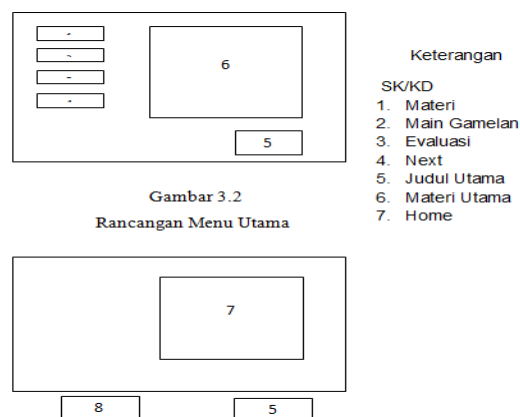


Figure 2. Contents Page Design

Making Gamelan Sounds. The type of gamelan whose voice is recorded is gender. Because his voice can represent the notes or gamelan tunings that will be studied in the macapat and repertoire songs, this gamelan recording can be done directly on a cellphone or

directly on a laptop. The gamelan recording is then cut into pieces according to the tone level using the audacity-win-2.1.0 application. After getting the desired tone then, it is saved in mp3 format. For settings, use an Arduino chip of the makey-makey type of an external computer. This tool is easy to get from electronic shops and online at economical and affordable prices. Setting or setting is relatively easy because we only connect it with a USB button and combine it with Scratch. Making the main menu in PowerPoint using shapes to form the desired design. By adding mountains of wayang accents to give an artistic impression. Giving a golden brown background to give a classic impression.



Figure 3. Main Menu Design

Next, prepare nine pieces of thin plywood cut into a rectangular shape with a size of 7 x 20 cm. This material will later function as a xylophone which will be beaten to produce sound. The base mat for the xylophone is also made of plywood which is formed into a block the size of a gamelan stand, forming a gamelan close to its original shape. The final stage is to prepare the plywood gamelan designed with the prepared chips. The tools and materials prepared are thin plywood measuring 0.2 cm, cut into a rectangular shape with a size of 5 x 13 cm, which functions as gamelan blades.

To learn the macapat and dolanan songs, the teacher is usually very tired in delivering this material because they only rely on the parrot method. Students only imitate the tone spoken by the teacher. This method is very ineffective because students do not explore much in learning, and the teacher is only a single actor in learning. With this media, the role of the teacher is as a facilitator and guide in learning. It is expected that students can explore creativity in sound art processing.

Sequentially, this media starts with opening a PowerPoint containing SSD material. Starting from knowledge of song tunings to some basic knowledge of macapat. The advantage of this media is that students can learn to independently demonstrate and sing macapat and dolanan songs because the touch gamelan played by students

will lead students to know how precise the notes are to be played. With this independent guidance, the teacher is more energy efficient and acts as a guide, facilitator and inspiration for students.

This innovation has specifications that can help make it easier for students to learn and for teachers to deliver SSD material. Besides that, combined with interactive material in PowerPoint, it is hoped that it will make students happy and challenged to be creative in creating their dolanan songs. The tones produced by this triplek gamelan will help students follow along with the macapat song lyrics that will be learned.

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Economically this touch gamelan is classified as very economical because the basic ingredients for its manufacture are plywood, chips, and applications installed on the laptop. The cost calculation needed to make a gamelan is only around 100 thousand. Compared to the original gamelan, one saron, or gender alone, can cost nearly 10 million. The practicality of this touch instrument or gamelan is classified as very practical. How to use it, we just need to connect this touch gamelan to a laptop that has Scart installed. A sound system can make a loud sound and reach the entire classroom. How to play it is also very easy, by touching the sound bars that have been installed with the chip and one of our hands holding the ground wire that has been installed. Storage and maintenance of this media is quite easy and practical because the weight of this touch gamelan is not up to 3 kg. To protect against termites or fungi that interfere with this gamelan, you can paint the wood; besides beauty, it can also help the durability of the plywood. Researchers used the Teacher Working Group (KKG) forums at the gusek and sub-district levels to diffuse this Gamelan Touch innovation. Through this forum, researchers explain the process of making it, how to use/play it, and its application in learning, especially regional sound arts. Researchers used the Teacher Working Group (KKG) forums at the guest and sub-district levels. Through this forum, researchers explain

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The observation results explain that students' interest in learning SSD has increased. Initially, only eight students obtained B grades, then in cycle I, it increased to 13 students, and in cycle II, it increased to 18 students from 20 students. In the form of a percentage, it is known that students' B scores or student activity are 40% to 65% and 90%.

Table 1. Observation Results

	Pre Cycle	Cycle 1	Cycle II	Percentage	Percentage	Percentage
AB Grade Acquisition	0	0	0	0	0	0
Earning B Grades	8	13	18	40	65	90
K Value Gain	12	7	2	60	35	10
AK Value Acquisition	0	0	0	0	0	0

There was a significant increase in students' interest in learning SSD. According to the diagram above, it can be seen from the increasing activity of students in learning. Based on Table 3.2 above regarding the assessment results table, it can be seen that during the two learning cycles,

students experienced increased learning mastery. Initially, only one student, or 5%, completed, increased to 9 or 45%, and increased again in cycle II to 18 students, or 90%. More details as described in the following table.

Table 2. Learning Achievement Results

	Pre Cycle	Cycle 1	Cycle 2
Top marks	77	83	83
Lowest score	50	60	73
Average rating	64	73	80
Complete	1	9	18
Follow-up	19	11	2
Completion Percentage	5	45	90

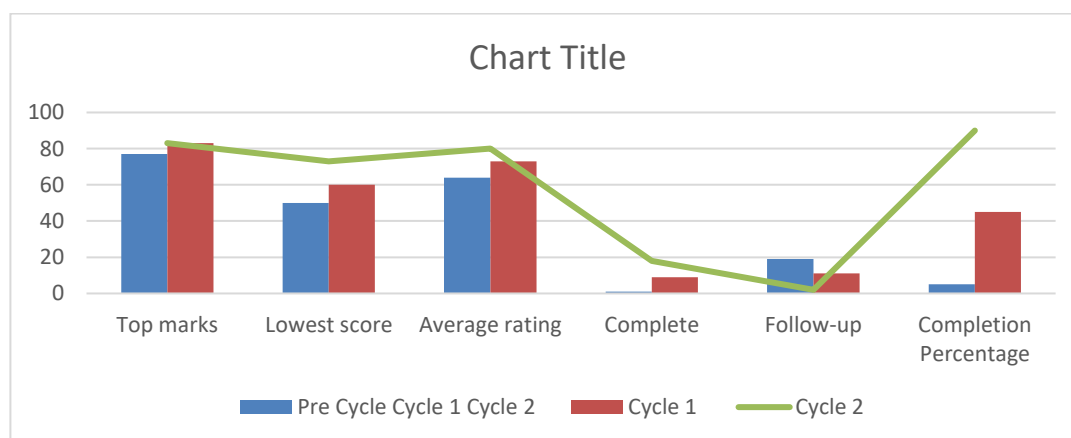


Figure 4. Bar Chart of Learning Outcomes

CONCLUSION

It can be seen from the research data that students' motivation and learning achievement in SSD learning have increased when using touch gamelan media. In addition, teachers in the

research area began creatively teaching regional sound art materials, using innovative touch gamelan media. In several competition events, which competed for regional singing or macapat song competitions, it was seen that many

participants took part. For example, the MAPSI competition forum and the Mother Language Shoot Competition, as well as a competition held by the nearest junior high school for birthday activities.

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