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Implementation of Number Notation in Song Learning

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A B S T R A C T S

In the process of learning a song work, constraints often occur in students' limited memory. The song material given at the first meeting will be forgotten when reviewed at the second meeting, to overcome this we try to apply number notation as a way for students to recall the tone of the song that has been given. The purpose of this study was to determine the efficiency and response of the application of number notation to song learning in junior high school. This study uses a qualitative descriptive method, the data collection technique used in this study is to provide a pre-test and post-test which contains 10 questions regarding numerical notation. The findings of this study gave a positive response to the students, in the initial pre-test found results that were not good because many of the students did not understand numeric notation at all, but after that they were shown a video of reading material notation of numbers and then a post-test was carried out, the results were good. The students made progress after seeing the video. The conclusion of this study is to implement numeric notation in the song learning process, making it easier for students to memorize the material and making it easier for teachers in the process of conveying it, thus it is hoped that it can be a solution to the problems previously mentioned.

A R T I C L E I N F O

1. INTRODUCTION

Music is an expression of one's feelings that is poured in the form of beautiful tones and poetry. Music is the art of expressing ideas through sound, the basic elements of which are melody, rhythm and harmony. Music is also the main support for complementing and perfecting various art forms in various cultures (Sinaga, 2017). the function of music is matters relating to the ideas and behavior of a society (Irnanningrat, 2017). Music has writing called sheet music or musical notation, during orchestral practice the instrument players usually distribute a sheet of paper containing the notation, to facilitate they read the notes of the song they want to play.

Musical notation is the writing used to keep notes by musicians. Musical notation is written signs that have a tone, Martinus also defines notation as the process of making tone marks. Notation is a symbol or musical writing, in the notation there is a symbol that shows the high and low tone, rhythm, time and many other information. Which states that musical notation describes the amount of time in a horizontal direction and high and low notes are described in a vertical direction, the function of making this notation is as a medium to facilitate the reading of notes in the song you want to learn (Arief, 2016). Music notation is divided into two forms, namely block notation and number notation, to clarify the meaning of this form of notation, it is necessary to equalize perception. Perception is a process of using knowledge that has been owned (stored in memory) to detect or obtain and interpret stimuli received by the senses such as eyes, ears and nose (Rehalat, 2014). In this study, we focus on number notation because it is easier for junior high school students to learn.

Based on the description above, it is necessary to have effectiveness in continuous learning. Effectiveness is the relationship between output and goals or it can also be said as a measure of the extent to which organizational outputs, policies and procedures. Learning will be more effective if teaching and learning activities are in accordance with the intellectual development of children (Abdullah, 2017). So, the number notation is considered effective to be applied in learning songs for junior high school students. The purpose of this study was to determine the efficiency and response of the application of number notation in learning songs in junior high school. The method used in this study is a qualitative descriptive method with data collection techniques through google form, students do a pre-test & post-test then the results are compared between before and after watching the video number notation material.

However, previous research on musical notation did not discuss how the efficiency and response of students to the application of notation in song learning. Therefore, further research is carried out to find out how the efficiency and response of students to the application of notation in this learning process is.

2. THEORETICAL FRAMEWORK
2.1. Learning Models

The learning model is growing from time to time. The term model can be interpreted as a conceptual framework that is used as a guide in carrying out an activity (Tayeb, 2017). The learning model is a strategy used by teachers to increase learning motivation, learning attitudes among students, able to think critically, have social skills, and achieve better learning outcomes (Sundari, 2015). Solution was found after the problem occurred, we applied a learning model that immediately started with a question, it became a problem for students because there was no teaching before the problem was done, then there was a video explaining the number notation as a solution & finally the testing process through the same

questions to measure ability students after the solution. Problem-based learning model is a learning model based on the number of problems that require authentic investigations, namely investigations that require real solutions to real problems (Listiani, 2017).

2.2. Synchronous Learning

In the era of the COVID-19 pandemic which brought changes to the world of education, especially learning models and media, many adjustments were made. This adjustment causes a renewal in the learning media, every new thing must cause curiosity so that students are interested in exploring it. The use of learning media in the learning process can generate new desires and interests, generate motivation and stimulation, learning activities, and even bring psychological effects on students (Hidayah et al., 2010). Therefore, media and learning models are needed that can support effectiveness. Effectiveness is the use of resources, facilities and infrastructure in a certain amount that is consciously determined beforehand to produce a certain amount of money work on time (Sunarmin et al., 2019). The new thing in this case is synchronous learning, synchronous learning is a learning process that is carried out in real time, namely where learning is carried out between teachers and students online and can carry out two-way communication directly providing feedback. This learning model is also used in this study.

2.3. Numeral Notation

Notation is the most important part of music, which in this study will be used as a major instrument in measuring student ability data. Accuracy & speed of music players in reading notation is called prima vista, a good prima vista technique in understanding musical reading can increase learning motivation and competitiveness in the classroom, with knowledge, discipline, and focus, a musician can perform technical skills with the ability to read (Magara et al., 2011). Based on the benefits, sight reading skills will definitely have a positive impact if applied in this study, but the main indicator of students remains on reading comprehension notation, the notation referred to in this study is numeric notation.

3. METHODS

This study uses a qualitative method with a descriptive approach, a qualitative descriptive method is a research method that utilizes qualitative data and is described descriptively. Qualitative descriptive method is a research method based on the philosophy of positivism that is used to examine the condition of natural objects where the researcher is the key instrument of data collection techniques carried out by tribulation, data analysis is inductive/qualitative, and the results of qualitative research research emphasize meaning more than generalizations, data The data collected are in the form of words, notes from observations, pictures and not numbers (Reski, 2020). This qualitative research focuses on subjective meaning, definition, metaphor and description in specific cases (Somantri, 2005). The sample used in this study were junior high school students in the city of Bandung. We collected data using a google form instrument which contains 10 questions, there are pre-test and post-test. The stages are divided into 3, namely pre-test, video presentation and post-test. This research focuses on the results of the data from before and after the video presentation.

4. RESULTS AND DISCUSSION
4.1. Demography

The location in this study were students in junior high schools in Bandung, Indonesia. The first step in this research is to conduct a survey at school and interview the vice principal and art and culture teachers, then we get the subject from one class we take 10 students from a total of 36. Those 10 students for respondent data in the question are that we have made.

4.2. Phenomena in Learning Process

The survey results at the initial stage are then processed by making questions. The level of difficulty of the questions that we make adjusts to the abilities of junior high school students in general, in response to the answers to the questions we use a Likert scale. The Likert scale is a bipolar scale method that measures positive "yes" and negative "no" responses to a statement. The questionnaire is a set of written questions that are submitted to respondents to be filled out without intervention from us or others (Prawiyogi *et al.*, 2020). Response categories on the Likert scale have levels but the distance between categories cannot be considered the same, so the Likert scale is an ordinal scale class (Budiaji, 2013). We processed the finished questions into a form and then uploaded them to the google form so that students can access them. In distributing the google form link to students, we coordinate with our supervising teacher at school, the link is sent via messages in the WhatsApp class group, but before sending the link we introduce ourselves and explain our purpose so that students can understand the context of our intention in sending questions. The google form link that we shared contains three slides, the first slide contains a pre-test of ten questions, the second slide contains two videos to learn number notation, then the third slide contains a post-test of ten questions. The test results from these questions are explained in the next section.

4.3. Pre-test and Post-test Results

The majority of today's learning models are done online (face-to-face) because of the pandemic, as well as the school that is the location of our research, learning is done face-to-face. We also adjust the questions according to the learning model at the school, the media we use here is google form. Giving a link to our question is conveyed through the WhatsApp group in our tutor class.

The first step in this research is to distribute the pre-test link to the students. This pre-test stage is carried out with the aim of knowing how far students know about number notation, at this stage there is no provision of material at the beginning. The next stage is teaching through videos that already exist on the form, followed by a post-test as a measure of student understanding after listening to the shows that have been given earlier.

Table 1 shows the results of the questions that students have worked on. The table explains the percentage of "yes" answers to the questions that have been given. In question number seven there is a **Figure 1** containing a description of the rest, rhythmic and bar symbols, for question number eight there is a **Figure 2** of the number notation of the song Apuse.

The results show several discussion points:
 (i) For question number one, the result increased by 12.3% after seeing the number notation material.
 (ii) For question number two, the results increased by 28.6% after seeing the number notation material.

(iii) For question number three, the results increased by 71.4% after seeing the number notation material.

(iv) For question number four, the results increased by 57.1% after seeing the number notation material.

(v) For question number five the results increased by 57.1% after seeing the number notation material.

(vi) For question number six the results increased by 71.4% after seeing the number notation material.

(vii) For question number seven the results increased by 71.4% after seeing the number notation material.

(viii) For question number eight the results increased by 57.1% after seeing the number notation material.

(ix) For question number nine the results increased by 57.1% after seeing the number notation material.

(x) For question number ten the result increased by 42.9% after seeing the number notation material.

The results of **Table 1** data show a fluctuating increase. At the pre-test stage, question number one has the highest percentage, which is 85.7%, it shows that the previous students already knew number notation, but only knew it had not reached the level of understanding. The post-test results showed a percentage increase in all questions, just by listening to the show, students' understanding of number notation has grown rapidly, especially in questions number three, six, and number seven which have increased by 71.4%, the essence of the three questions is more to the application of reading number notation, this proves that number notation is easy to understand & can be directly applied to learning.

Table 1. Students pre-test and post-test results.

No.	Question	Pre-test	Post-Test	Gain
1.	Do you know what number notation is? Have	85.7%	100.0%	12.3%
2.	You ever followed a number notation lesson before?	71.4%	100.0%	28.6%
3.	Do you understand how to read numeric notation?	28.6%	100.0%	71.4%
4.	Numeric notation is easy to understand?	28.6%	85.7%	57.1%
5.	Do you easily memorize songs by reading numeric notation?	28.6%	85.7%	57.1%
6.	With numeric notation you can easily remember the notes in the song you want to learn?	28.6%	100.0%	71.4%
7.	Do you understand the marked symbols in **Figure 1**?	28.6%	100.0%	71.4%
8.	Can you read the notation in **Figure 2**?	28.6%	85.7%	57.1%
9.	When compared to other methods, number notation is the easiest way to learn songs?	42.9%	100.0%	57.1%
10.	Reading numeric notation is easier with the help of musical instruments?	57.1%	100.0%	42.9%

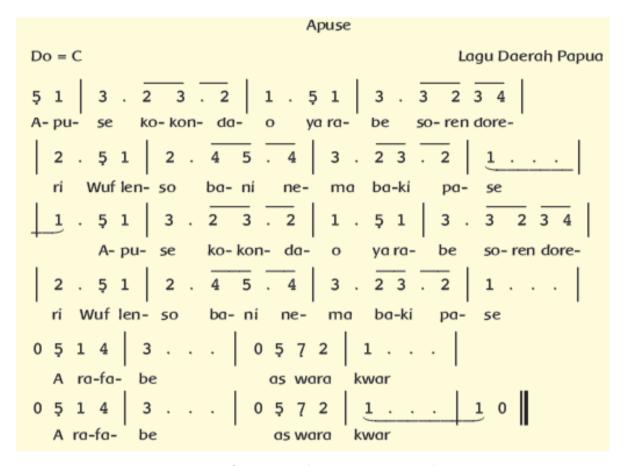**Figure 1.** Rest, rhythmic and bar symbols.

Figure 2. Information about question number 8.

5. CONCLUSION

Based on the results of the research that has been carried out, we conclude that on average students already know about numerical notes, because the results of the first pre-test question are quite large, namely 85.7% but their understanding is still lacking, it can be seen from the percentage of the pre-test which is getting smaller until at 28.6%, the average score is only 42.9%. The improvement began to be seen after the presentation of numerical notation, the post-test results reached 100.0% and the lowest percentage was 85.7%, it showed very good progress. Question number eight regarding the application of direct reading, the result of the increase is also high, reaching 57.1%. The results of the data analysis prove that number notation is easy to understand even though the delivery is only with video, from the results of positive student responses to the application of number notation in song learning, it is hoped that it can be a solution to make it easier for students to remember song

material by reading number notation and make it easier for teachers in delivering song material when learning takes place.

6. ACKNOWLEDGMENT

7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

8. REFERENCES

Abdullah, A. (2017). Pendekatan dan model pembelajaran yang mengaktifkan siswa. *Edureligia: Jurnal Pendidikan Agama Islam*, *1*(1), 45-62.

Arief, A. (2016). Pemanfaatan program "bata" pada pembelajaran seni musik untuk meningkatkan pemahaman notasi balok dan notasi angka siswa. *Jurnal Pendidikan Sekolah Dasar (JPSD)*, *2*(1), 36-42.

Budiaji, W. (2013). Skala pengukuran dan jumlah respon skala likert. *Jurnal Ilmu Pertanian Dan Perikanan*, *2*(2), 127-133.

Hidayah, M., Nuryanto, S., and Fawaid, M. (2010). Pengaruh penggunaan media pembelajaran berbasis ICT (information, communication, and technology) terhadap motivasi belajar siswa kelas X pada pembelajaran ekonomi di SMAN 1 Banguntapan. *Pelita-Jurnal Penelitian Mahasiswa UNY*, *5*(2), 1-11.

Listiani, W. (2017). Upaya peningkatan hasil belajar melalui model pembelajaran problem-based learning pada siswa kelas 4. *E-Jurnal Mitra Pendidikan*, *1*(6), 694-707.

Magara, A., Nurulloh, A., and Pangesti, F. H. (2011). Perbandingan kecepatan berpikir dan prima vista anak melalui kajian instrumen flute. *Pelita-Jurnal Penelitian Mahasiswa UNY*, *6*(2), 1-9.

Prawiyogi, A. G., Purwanugraha, A., Fakhry, G., and Firmansyah, M. (2020). Efektivitas pembelajaran jarak jauh terhadap pembelajaran siswa di SDIT Cendekia Purwakarta. *Jurnal Pendidikan Dasar*, *11*(1), 94-101.

Rehalat, A. (2014). Model pembelajaran pemrosesan informasi. *Jurnal Pendidikan Ilmu Sosial*, *23*(2), 1-10.

Sinaga, S. S. (2017). Pemanfaatan pemutaran musik terhadap psikologis pasien pada klinik Ellena skin care di kota Surakarta. *Jurnal Seni Musik, 6*(2), 81-90.

Sundari, H. (2015). Model-model pembelajaran dan perolehan bahasa kedua/asing. *Jurnal Pujangga*, *1*(2), 106-117.

Tayeb, T. (2017). Analisis dan manfaat model pembelajaran. *Auladuna: Jurnal Pendidikan Dasar Islam*, *4*(2), 48-55.

Reski, D., Sjahruddin, H., and Anto, A. (2020). Pengaruh working capital turnover dan cash turnover terhadap return on assets. *Jurnal Penelitian Ilmu Manajemen (JPIM)*, *5*(2), 149-160.

Sunarmin, S., Utami, N. S., and Yulianita, W. E. (2019). Analisis efektivitas penetapan jalur terkait dengan dwelling time di kantor pelayanan utama bea dan cukai tipe a Tanjung Priok. *Jurnal Pajak Vokasi (JUPASI)*, *1*(1), 57-69.

Irnanningrat, S. N. S. (2017). Peran kemajuan teknologi dalam pertunjukan musik. *Invensi Jurnal Penciptaan dan Pengkajian Seni*, *2*(1), 1-8.

Somantri, G. R. (2005). Memahami metode kualitatif. *Makara Human Behavior Studies in Asia*, *9*(2), 57-65.