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Titi Laras Damina Educational Learning for Senior High School Students as a Form of Cultural Preservation

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A B S T R A C T

This study aims to educate Titi Laras Damina's learning in Kartika Senior High School students. The research was conducted on representatives of 10 grade-11 social studies students through 3 stages, namely (i) pre-test; (ii) theoretical and practical education using the Direct Instruction method; and (iii) post-test. The results showed that the average pretest theoretical value was 71 and the posttest average was 96.5. The results of the comparison of the pretest and posttest did not significantly increase after the learning was carried out. The results of the N-Gain calculation show that the average N-Gain value is 34% (N-Gain < 40%) indicating that Titi Laras Damina's learning is theoretically ineffective for Senior High School students in grade 11 social studies. This is due to the comparison of pre-test scores. and the post-test was not so high and the students' knowledge was sufficient of Titi Laras theory. Practically there is a significant improvement because before learning students have not been able to mention the notes in each barrel. However, after learning using the direct instruction method there is an increase in musicality in students. Students can now say the notes in each barrel after it has been held. From this research, it is hoped that students can master the knowledge of Titi Laras Damina in theory and practice.

A R T I C L E   I N F O

1. INTRODUCTION

Sundanese culture is one of the oldest cultures in the archipelago (Yulindrasari & Djoehaeni, 2019). The ideal Sundanese culture is then often associated with the culture of the Sunda Kingdom (Rusmana, 2021). Sundanese culture is also one of the cultures that are a source of wealth for the Indonesian nation which in its development needs to be preserved (Haditama *et al*., 2016). One of these cultures is the Titi Laras or Sundanese scales. The barrel is a scale used on the type of musical instrument (gamelan) which is one of the cultural arts of West Java. Because art is a universal element of culture, it needs to be preserved (Haditama *et al*., 2016).

Titilaras is a system and is part of the musical science in which there is the science of beating (Haditama *et al*., 2016). Titi Laras plays an important and practical role because knowing the knowledge about Titi Laras can hone musicality and record songs or get in Sundanese songs. To master the science of Titi Laras, indeed, you have to study it.

Teaching and learning strategies are important for teachers to plan and implement. A teacher is like a warlord, every warlord must be proficient in war strategy (Barlian, 2013). As in previous research conducted by Iswangga (2020) regarding Karawitan Extracurricular Learning at Senior High School 1 Pemalang using a teacher-centered strategy. That is the teacher who becomes the center of learning and who determines all things related to learning activities, such as materials, methods, and learning objectives. The teacher gives the material gradually starting from the material in the form of an introductory theory of Javanese Karawitan, then the material for reading notation and rhythm using Javanese gending.

There is also research on the creation of programmatic musical works based on the socio-cultural phenomena of the family and repetitions with simple development, the interpretation of the saléndro barrel in the whole tone scale in western music, as well as the transition of traditional musical instruments kendang, karawitan degung laras madenda, and karawitan jaipong into the form of a string ensemble dish (Ananda *et al*., 2022).

In addition, there is also research on band learning in extracurricular activities at Jatilawang State High School, as well as to find out the supporting factors and inhibiting factors for the band extracurricular learning process at Jatilawang State High School (Purnadi, 2015). Research on the material of sinom pupuh songs in the artwork of Pupuh Raehan (Fauzy, 2021). As well as research on a group called Kanca Indihiang formed by Mang Koko in 1946, which belongs to the Sundanese Witty art genre, namely performance art with a humorous art format. MangKoko's creativity in carrying out various innovations makes the Kanca Indihiang group very different from the art of Witaka Sunda in general (Satriana, 2014). However, there has been no research on Titi Laras Karawitan Sundanese learning.

Therefore, this study aims to educate the theory and practice of Titi Laras Damina's learning to Kartika XIX-2 Senior High School students located and domiciled on Jl. Mr. Gatot Raya No.73S, Gegerkalong, Sukasari, Bandung, West Java, Indonesia. The novelties of this study are (i) research conducted on the socialization of Titi Laras Damina's learning; (ii) Titi Laras' learning process is carried out using the Direct instruction method; and (iii) Learning focuses on theoretical knowledge as well as the introduction of the kinds of tunings and practicing the notes of each tuning.

2. METHOD
2.1. Research Subject

Research subjects were representatives of 10 students of Kartika XIX-2 Senior High School grade 11 social studies in Bandung, Indonesia.

2.2. Research Design Analysis

Research data collection was carried out by distributing questions to representatives of 10 students of grade-11 social studies Senior High School. **Table 1** shows the pre-test and post-test questions in this study. Making questions focused on questions about Titi Laras Damina. The types of pre-test and post-test questions are multiple-choice questions. The scoring of the answers is marked as 5 for correct answers and 0 for incorrect answers.

Table 1. Pre-Test and post-test questions.

No	Questions	Answer Choice		Answer Key
1.	What does Titi Laras mean?	a.	Musical scale	A
		b.	Climbing up the stairs	
2.	What is Titi Laras used in Sundanese Karawitan?	a.	Dhong ding	B
		b.	Damina	
3.	How many types of barrels are there in Titi Laras Damina?	a.	3	A
		b.	4	
4.	What barrels do Titi Laras Damina have?	a.	Degung, madenda, and doremi	B
		b.	Salendro, degung, madenda	
5.	What is called the ovary Laras?	a.	Madenda	B
		b.	Salendro	
6.	What is the difference between each Laras?	a.	Tone	B
		b.	Interval	
7.	Na is the mention of the tone in the number of	a.	1	B
		b.	3	
8.	La is the mention of the tone in the number of	a.	5	A
		b.	4	
9.	Ti is the mention of the tone in the number of	a.	4	A
		b.	2	
10.	Mi is the mention of the tone in the number of	a.	2	A
		b.	3	
11.	Da is the mention of the tone in the number of	a.	2	B
		b.	1	
12.	In terms of music there is something called an octave. In musical terms, octav is called	a.	Gembyang	A
		b.	Kempyung	
13.	How many barrel intervals in one gembyang?	a.	1200 cent	A
		b.	120 cent	
14.	Sounding 2 tones simultaneously with a distance of 2 tones is called?	a.	Gembyang	B
		b.	Kempyung	
15.	What tones can be in kempyung?	a.	1 and 2	B
		b.	1 and 4	
16.	Tofu round song is a song that uses the barrel?	a.	Degung	A
		b.	Salendro	
17.	Manuk Dadali song is a song that uses the barrel?	a.	Degung	A
		b.	Salendro	
18.	Bubuy Bulan song is a song that uses the barrel?	a.	Madenda	A
		b.	Salendro	
19.	What is the function of Titi Laras?	a.	Specific tone and rhythm benchmarks for traditional music	A
		b.	Standard tone and rhythm specific to western music	
20.	Why should we study Titi Laras?	a.	To preserve Culture	A
		b.	To preserve nature	

There are 3 stages in data collection, namely (i) distribution of pre-test questions; (ii) providing educational actions for Titi Laras Damina's theory and practice learning through the Direct Instruction method; and (iii) distribution of post-test questionnaires. The data processing approach used is quantitative. The researcher made 20 pre-test and post-test questions.

2.2.1. N-Gain Value Analysis

Normalized gain or N-Gain Score aims to determine the effectiveness of the use of a particular method or action in the one group pre-test post-test design research (Dahliana *et al.*, 2019). The N-Gain Score test is done by calculating the difference between the pretest and posttest scores (Lestari *et al.*, 2018). The formula used in calculating the N-Gain value is shown in Eq. (1).

$$N\ Gain = \frac{Posttest\ Score - Pretest\ Score}{Ideal\ Score - Pretest\ Score} \qquad (1)$$

The ideal score is the maximum value that can be obtained by respondents when filling out the pretest and posttest questions. **Table 2** shows the classification of the N-Gain . There are several categories of obtaining N-Gain values that can be used as a reference for determining the conclusion of the final result. **Table 2** shows the classification of the N-Gain value acquisition categories (Prastiwi & Nurita, 2018).

Table 2. Divide the N-Gain score.

N-Gain Value	Category
g > 0.7	Height
0.3 ≤ g ≤ 0.7	Medium
g < 0.3	Low

3. RESULTS AND DISCUSSION

Table 3 is the result of the N-gain analysis. The normalized gain analysis is used to determine the gain criteria obtained (Nismalasari *et al.*, 2016; Zakaria & Pertunjukan, 2018). Based on the data in **Table 3** which shows the results of increasing the skills possessed by each student , the average N-Gain value is 0.34 (34%) indicating that the method or treatment carried out is Titi Laras Damina's learning by using the direct instruction method is not effective . used for students of Kartika XIX-2 Senior High School grade 11 social studies . With an N-gain score of at least 0.25 (25%) and a maximum of 0.42 (42%).

The research is included in the category of ineffective interpretation. The ineffectiveness of Titi Laras Damina's theory of learning is influenced by the difference in the students' pretest and post-test scores which are not so large after the learning is carried out. The results of the ineffectiveness of learning are influenced by the respondents' initial pretest scores which are quite large.

This shows that knowledge about Titi Laras Damina is well known among students. Practically there is a significant improvement because before learning students have not been able to master how to pronounce the notes in each barrel. However, after learning by using the direct instruction method there is an increase in students.

Students can now say the notes in each barrel after the lesson is held. In addition to mentioning the tone on each barrel, the student's solfeggio ability improves. Solfeggio is one of the exercises that strengthen the sensitivity of tonal sounds, through exercises - auditory exercises sung (Latifah *et al*., 2021; Widjaja, 2018). There are two aspects to solfeggio. The former refers to the ability to accurately sing the pitch and rhythm of the tunes following the requirements of music scores while the latter is the training of memory ability of music, resolving ability of music rhythm, and inner hearing of music.

Table 3. Analysis of pre-test and post-test gain values.

No.	Student	Score		N-Gain Score	Category
		Pre-test	Post-test		
1.	A	75	95	0.25	low
2.	B	70	100	0.42	currently
3.	C	80	100	0.25	low
4.	D	70	95	0.33	currently
5.	E	65	95	0.42	currently
6.	F	70	100	0.42	currently
7.	G	70	95	0.33	currently
8.	H	75	100	0.33	currently
9.	I	60	90	0.42	currently
10.	J	75	95	0.25	low
Amount		710	965	3.42	
Average		71	96.5	0.34	
Min		60	95	0.25	
Max		80	100	0.42	

Figure 1 shows the analysis of differences in the results of the pre-test and post-test per question. Based on the picture, it can be seen that all the results done by students have increased from each question indicator. If you look at the results, Titi Laras Damina's learning using the Direct Instruction method can still be used in delivering material to students even though this study did not have a high level of effectiveness in delivering theory.

However, Titi Laras Damina's learning using the direct instruction method in practical learning is quite effective and has a positive impact on perceptions, understanding, and improvement in terms of students' musicality towards Sundanese karawitan.

According to Iswangga (2020) earning strategies applied in learning extracurricular activities karawitan in Senior High School of 1 Pemalang is a strategy of independent learning and complete learning, with a teacher-centered learning approach. It is said to apply learning strategies independently because the learning has a syntax that corresponds to the syntax of the learning strategy independent i.e., orientation, presentation of material, activities independent, and evaluation.

While it says implementing a complete learning strategy because the learning has stages that are the same as the characteristics of the stages of the learning strategy complete, that is, the stage of orientation, presentation, practice structured, guided exercises, and exercises self-sufficient. The results are students' initial knowledge of Titi Laras Damina's learning theory is sufficient. Practically there is a significant improvement because before learning students have not been able to master how to pronounce the notes in each barrel.
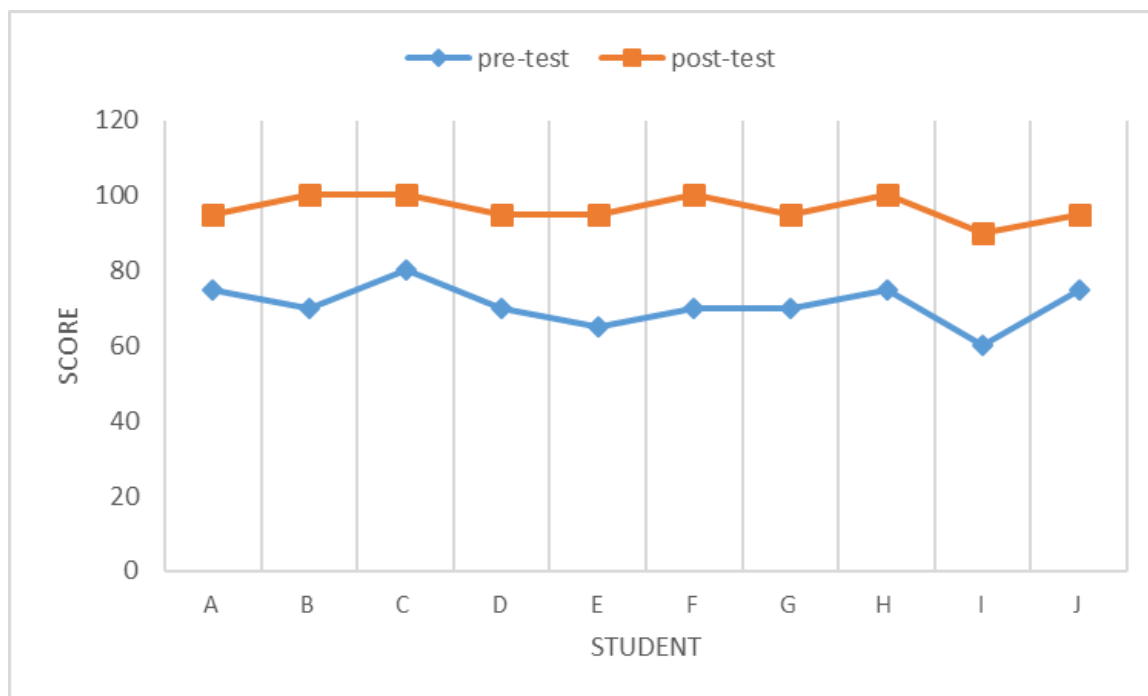
Figure 1. Graph of pre-test and post-test result.

4. CONCLUSION

The research that has been carried out aims to educate Titi Laras Damina's learning to 10 students of Kartika XIX-2 Senior High School. There are 3 main steps carried out in this study, namely (i) pre-test; (ii) theoretical and practical education using the Direct Instruction method; and (iii) post-test. The results showed an increase between the average value of the pretest and posttest, starting with a value of 71 to 96.5. The n-Gain calculation is done to determine the effectiveness of the actions taken.

The results show the average N-Gain value is 34% (N-Gain < 40%). This means that the provision of Titi Laras Damina's learning theory education is not effectively used for 10 representatives of High School students' Grade 11 social studies. The ineffectiveness of the media is influenced by the pre-test score that is not too small.

Thus, it can be seen that students' initial knowledge of Titi Laras Damina's learning theory is sufficient. Practically there is a significant improvement because before learning students have not been able to master how to pronounce the notes in each barrel. However, after learning by using the direct instruction method there is an increase in students. Students can now say the notes in each barrel after the lesson is held.

5. ACKNOWLEDGMENT

6. 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.

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