Using *Pazia Angklung* application in understanding song scores

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Abstract. Playing a music score, students have difficulty reading scales and understanding the score of a song. These difficulties must be overcome with the *Pazia Angklung* application. This research aims to improve students’ understanding in music notation. The study was conducted by following the procedure as follows: (1) searching and downloading application related to musical instruments to play song scores; (2) learns the application to understand the scale; (3) play music scores using the application; and (4) evaluating. The study was conducted in fourth-grade elementary students with an age range of 9-11 years. Total subjects were 26 students. The results showed that learning the parts in the song by using the *Pazia Angklung* application, can improve the effectiveness of learning. It can be concluded, that the skills of the students in the song section are increasing well, so are some aspects of the attitude.

1. Introduction
In the melodic instrument of music learning in elementary school, students always have trouble when playing a song score given by the teacher. Students don't yet understand and also the difficulty in reading scores. Reading music is very important [1–4]. The unavailability of the melodic instrument in school also makes less of the maximum factor of students’ ability in understanding a score of songs. The number of students in elementary school is not comparable to the melodic instruments that the school has. That also happened in an elementary school in West Java, Indonesia.

Today, technology has been widely used in learning at school [5,6]. In music learning, musical instruments used can utilize technology such as the *Pazia Angklung* application. This application can be used to practice reading scales to understand song scores. There are several publications related to reading scales in understanding music scores. For example, Leon [7] explained his findings about the strategy of reading music. Thakur and Natale [8] studied reading notations for high-school students. Penttinen [9] examined the strategy of reading music with eye-movement. The publication above does not lead to the use of *Pazia Angklung* to increase the scale of reading music. Therefore, this study focuses on the use of *Pazia Angklung* to read scales in understanding scores.

This research was conducted aiming to enhance students' ability in understanding the scores of songs, using application *Pazia Angklung*. Ordinary learning, students will only recite the order of scores. However, with the newer technology, all students can quickly understand in playing scores with musical instruments.

2. Methods
The study was conducted by following the procedure as follows: (1) searching and downloading application related to musical instruments to play song scores; (2) learns the application to play songs...
score; (3) play music scores using the application; and (4) evaluating. The study was conducted in fourth-grade elementary students in Indonesia with an age range of 9-11 years. Total subjects were 26 students.

3. Results and discussion

3.1. Searching and downloading application related to musical instruments to play song scores
At this stage, we are looking for alternative learning using technology related to the problem of understanding song scores. Many applications or software that support learning are more interesting, and we found an android application called Pazia Angklung (Figure 1). Pazia Angklung is an application that can be used to play song scores and can help to understand the score of a song. In our opinion, this application has quite complete features with a simple display and unpaid applications.

![Figure 1. Pazia Angklung application in Google Play Store.](image)

3.2. Learning the application to understand the scale
At this stage, all the features of the application are studied by introducing the application, then learning how to play the application. The Pazia Angklung application has two choices of how to play angklung which is first by vibrating, and the second by touching (Figure 2).

![Figure 2. Pazia Angklung application menu feature.](image)

Pazia Angklung application has seven scales. This can be played in single (Figure 3) and multiple tone (Figure 4).
3.3. Playing song scores using the application

The Angklung material given is in the form of an introduction to the area, shape, sound, and also how to play it. Then, the researcher wrote a national song score, the song *Ibu Kita Kartini* on the board. Then, each student observes the score. The researcher asked several students to try to read the scores that had been written. In this case, there are students who still find it difficult to read scores of a song even though the song can be said to be quite simple. After that, scores are read by all students together. The introduction of the scores of the song *Ibu Kita Kartini* is found in Figure 5.

![Figure 3. Single tone feature.](image)

![Figure 4. Multiple tones feature.](image)

![Figure 5. Introduction to the songs of *Ibu Kita Kartini*.](image)
Here students try to play Angklung using *Pazia Angklung* in accordance with the scores of *Ibu Kita Kartini*’s song that were studied. These activities are carried out in groups of eight people and are carried out alternately, thus will effectively accelerate students’ understanding [10], students try to play *Pazia Angklung* can be seen in Figure 6, and students play song scores with *Pazia Angklung* can be seen in Figure 7. Researchers assess the development of students reading scales and understanding song scores.

![Figure 6](image1.jpg)

*Figure 6. Students try to play their own Pazia Angklung.*

![Figure 7](image2.jpg)

*Figure 7. Students play Pazia Angklung according to the song of Ibu Kita Kartini.*

### 3.4. Evaluate learning
At this stage, evaluate the use of the application on the ability to understand the score. Students show the results of learning scales using the *Pazia Angklung* application. The researcher analyzes the development of the way students understand the notes in a song’s score. In addition, researchers also assess students’ attitudes during learning. The results of the development of students in studying the scales can be seen in Figure 8 below.
Based on Figure 7, it can be seen that learning scales using the Pazia Angklung application successfully improved students’ skills and attitudes. In the smooth aspect of reading the scores of a song, it recorded an average increase of 50%. In the aspect of enthusiasm, there is an average increase of 30.8%. In the aspect of confidence, there is an average increase of 46.1%. Meanwhile, in the aspect of working together, there is an average increase of 46.2%. Thus, the majority of students have achieved the target of targeted learning, namely being able to understand the notes in a song score correctly. This clearly proves, that media with various variants have a good influence on learning outcomes, ‘which emphasize that many technologies, symbol systems, and processing abilities’ [11].

4. Conclusion

Based on the results of the study, it can be concluded that learning scales in playing song scores using the Pazia Angklung application can improve the effectiveness of learning. The students’ skills in understanding the notes in song scores improved well, as did some aspects of their attitude.

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