

## Enhancing students' understanding and skills on dance music: An action research

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### Abstract

Dance students in university tend to have minimum understanding and skills in processing music to address the creativity needs in new dance works. Therefore, effective and critical learning strategies are needed so they are able to process music to create dance works. This research aims at enhancing dance students' understanding and skills to process music in creating new dance works in the future. It was conducted using an action research design involving 30 dance students at one of the universities in Indonesia. The results showed that, in terms of skills and understanding of music, students were not used to processing music for their dance works, since they were mostly assisted by music stylists. Through internal and external music exploration learning, the musical dance students' skills could be improved. Therefore, the findings of this research are recommended to be used as an alternative learning in enhancing dance students' musical ability.

**Keywords:** Dance Music, Movement Exploration, External Music, Internal Music, Dance Creativity.

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## 1. Introduction

Dance students are not only required to master the techniques and forms of movement in dance being studied, but they also have to master other dance presentation elements such as elements of music in dance (Hadiansyah et al., 2021) . Music in dance is one element of dance performances that provides strengthening access to rhythm (Takeda et al., 2004) to make the dance presentation become more dynamic and lively. More than that, the presence of music in dance will provide a strengthening of the character and the atmosphere of the dramatic element in the dance that is performed. Therefore, understanding and skills are needed in processing music to be used in new dance works to be created. This means that dance students must have adequate understanding and skills on how to cultivate and develop the musical elements needed in the new dance works to be created. If they do not master these aspects of skills, they will not be able to create musical elements that have musical qualities, which are in accordance with the characters and themes of the dances created.

Several studies on music in dance have been conducted. McGuire (2015) in his research explains that drum music is able to provide a strong energy boost to lion dancers in traditional Chinese society. Georgios, Aspasia, Maria, Evgenia, & Basiliki (2017) examine the effectiveness of learning music and dance in a traditional dance lesson. In addition, Mabingo (2020) examines the concept of music with the theory of choreomusicology and social learning that conceptualizes that music in dance does not only have a role as an accompaniment but can be used as a learning medium that helps educators in teaching and learning activities. However, in some of these studies, there are no researchers who have explicitly examined the study of music in dance as a creative process in making works that depart from the experience of exploring external and internal music played by the dancers themselves.

In general, a dance presentation always includes musical elements in its presentation (Hodgins, 1992; Jensenius et al., 2009; McMillin, 2014). In the process of dance creativity, a dance creator will start making dance works through musical stimuli that are used as a source of inspiration for movement. Even though some created dance works begin with developing movement or through kinesthetic stimuli, these two methods require a basic understanding and musical skills in order to create creativity in dance works in accordance with the ideas and concepts of the dance that will be created. The existence of music as an accompaniment in dance will have a movement impact through the sound effects it presents (Kealiinohomoku, 1965; Mason, 2012).

The connection between music and dance in an art performance has been recognized by ethnomusicologists and choreologists (Hanna, 2020; Mason, 2012; Petrie, 2015; Richter, 2010; Volpi, 2014). These two elements of the performing arts have their respective roles (Hampton, 2017; Kealiinohomoku, 1965; Mabingo, 2020; Mason, 2014). Music and dance become units that can create an artistic expression (Mason, 2012, 2014). Among other arts, music and dance have the strongest affinity for expression (Dissanayake, 2000; Hagen & Bryant, 2003). Movement and vocal sounds have been developing since a long time ago (Humphrey, 2008), even though the presentation of music and dance are two different elements of art in the medium of expression (Callahan, 2012; Damsholt, 2006; Jordan, 2011; Preston, 1999).

One of the creative processes in dance can be started by listening to music. Even so, the

creative process in dance can be carried out in several ways according to the ideas of each dance creator. To practice the skills of musical taste, dancers need to be given learning treatment so that they have a high sense of musical sensitivity. Therefore, they are able to understand the elements of music well when performing the dance works that are performed. Sun et al., (2020) explain in their research that the movements of a dancer can be adjusted to the music that is being played.

Music in a dance presentation has become an inseparable integral unit (Mason, 2012). Every movement in dance is attached to musical elements (Schneider & Godøy, 2001). The elements of space, time, and energy displayed in dance movements contain aspects of musicality that give rise to dynamics in dance presentation (Stacey & Mason, 2019). In this context, the presence of music in dance will give strength to the displayed choreography (Koons, 2016; Mabingo, 2020; Nannyonga-Tamusuza, 2015).

The existence of music in dance provides a strong movement attachment (Sanger, 1989). The existence of both of them is a system that pairs and fills each other (Geissmann et al., 2000). Music in dance can be grouped into two parts according to the source of its presentation, which are internal music and external music (Hagen & Bryant, 2003; Madsen & Coins, 2002). Internal music is a source of music (sound) produced from the dancers themselves, while external music is a source of music (sound) produced from a musical instrument or the sound of a music player outside the dancer itself.

From the observations in a dance music lecture in one of the higher education institutions in West Java, Indonesia, it was found that the students' skills to process music for the needs of the new dance works they created was still relatively weak. In general, the dance students focused more on how to process new motives for a dance work that they created. This had not been matched by a musical creative process for the needs of the new dance works they had created. Nearly 90% of the 74 students observed had difficulty processing and developing music for the needs of the dance works they created, especially when it was related to the conceptual themes and dance ideas that they created. Moreover, they have difficulty in deciding what kind of music they needed and how to make it in accordance with the new dance works they were creating. These problems were often faced by dance students when they were about to carry out a creative process in creating new dance works. From the results of these learning observations, of course, it is necessary to find a learning solution to improve the skills of dance students in processing and developing music for the needs of the new dance works they create. In another dimension, this competency is also needed by dance students to be able to understand the role and function of music in dance so that they can reflect on it when they are going to make new dance works for the purpose of college assignments or outside of dance practice assignments.

This research focuses on improving the skills and understanding of dance students in the creative process of creating new dance works by focusing on several problems, including: (1) Why do dance students not have the skills and understanding to process music for a new dance work that they will create?; (2) Do dance students know how to process and develop music for a new dance work that they will create?; (3) Do dance students know how to improve their musical skills and understanding for the purpose of the dance creativity process?; (4) Are the series of dance music learning stages given effective to improve the abilities, skills, and understanding of dance students in the process of creating new dance works? Therefore, based on those research question problems, action research steps were carried out with the aim of improving dance students' skills and understanding.

## 2. Methods and Materials

### 2.1. Research Design

The research procedure was carried out in accordance with how the action research design works (Aga, 2017; Edwards & Burns, 2016; Julia et al., 2019). One of the characteristics of this research design was to help solving learning problems and improving actual learning outcomes (Bozkuş & Bayrak, 2019; Suherman et al., 2019; Supriyadi et al., 2020). The practice of application was carried out continuously until learning outcomes were achieved in an effort to find solutions to learning problems (John W Creswell, 2013; Richard & Bélanger, 2018). Early research was carried out with a quantitative approach (Hogenes et al., 2016). This was in line with the research objectives, which were to find solutions to dance students' learning problems related to their understanding and skills in processing dance music for the process of creating new dance works. Action research stages were carried out through planning, implementation, and reflection (Balakrishnan & Claiborne, 2017; Jefferson, 2014; Richard & Bélanger, 2018; Tang et al., 2016).

The collaboration aspect is one of the most important parts that must be considered in research design (D. Banegas et al., 2013; D. L. Banegas, 2012; Nelson & Dodd, 2017; Perry, 2012; Robins, 2015). In the implementation process, this research involved several parties related to the creative process activities in dance through the processing and development of dance music related to the dance works created by students. Collaboration of several parties was an important part of the research process carried out (D. L. Banegas, 2012; Heil, 2005; Nelson & Dodd, 2017; Perry, 2012). They were needed to help formulating critical and reflective instruments and steps to solve learning problems faced by dance students.

### 2.2 Participants

This research was conducted on dance students in a leading tertiary education institution in West Java, Indonesia, who conducted dance practice lectures. Students in higher education came from various provinces in Indonesia outside of West Java. In addition, dance students in this program had diverse educational backgrounds, not all of them came from vocational high schools. This condition had a lot of influence on students' initial competence in mastering musical material in dance. Subjects involved in the study were 30 students in the second semester who were enrolled in dance music courses. Of the total research subjects, there were 24 female students (80%) and six male students (20%). There were 13 students from Bandung (43.3%), four students from Sumedang (13.3%), two students from Cirebon City (6.6%), one student from Kuningan City (3.3%), three students from Subang City (10%), two students from Bogor (6.6%), and five students from outside West Java province (16.6%). Five students had a vocational high school background (16.6%), while 25 students did not have a vocational high school background (83.3%). In the research process, all students knew and allowed the researchers to retrieve data during the research process.

### 2.3 Data Collection

The questionnaires were made using Google Forms, while the questions were "Yes" and "No" questions to determine students' understanding of dance music. Seven questions were asked to know

students' initial conditions of understanding and skills in dance music. Three questions were asked to find out the perspective of dance students on the importance of understanding and skills in cultivating and developing dance music. The instruments for observing the performance of student learning outcomes referred to the concept of pitch, tempo, and dynamics in a musical presentation in dance (Konečni, 2008; Krumhansl, 2002).

This research procedure was carried out in three main steps: the pre-action, action, and post-action stages. The pre-action stage was carried out through several activities. Those activities included an initial survey on research subjects (dance students in the West Java Higher Education in Indonesia) to determine the initial conditions for learning and musical abilities of dance students, conducting pre-test, and conducting preliminary analysis to see dance students' initial understanding and skills in processing and developing music to create new dance works. Furthermore, the action stage used the action research design was divided into several stages of activities, which were the description, results, and reflection. The third stage was post action to determine changes in student learning outcomes after being given intervention. The activity of evaluating learning outcomes was carried out through an action test, while the initial test was carried out by employing close-ended questionnaires to determine students' understanding of dance music.

The research data were obtained from the pretest, action, and posttest (final assessment) (Budiman & Sabaria, 2020; Rosala & Budiman, 2020) to see the differences in the results of learning activities carried out through internal and external music exploration treatments developed by students. Observations were focused on seeing the process of learning dance music carried out by students in processing internal and external music in the process of making dance works. Meanwhile, the interview was conducted to find out the student's response regarding the learning treatments provided by the teacher in providing understanding and skills in internal music processing and internal music as a source of ideas for the process of making dance works.

## **2.4 Data Analysis**

Analysis of research data was employed using qualitative approach by focusing on events of dance music learning carried out by dance students in each stage of learning activities. To find out the difference in the average learning outcomes from before and after the learning, there were some treatments given, which were analyzed based on a statistical description approach (Creswell, 2010) through a paired sample t test assisted by the SPSS window 0.22 program. The instrument to observe the performance of students' learning outcomes refers to Konečni's (2008) and Krumhansl's (2002) concepts on pitch, tempo and dynamics in a musical presentation in dance. Some data were coded (Farias et al., 2017) to reveal the meaning of the data, ideas and themes of research problems that are raised in each explanation and discussion of research results.

### 3. Result

#### 3.1. Pre-Action: Analysis of Students' Initial Dance Music Skill

This stage was carried out to determine students' initial abilities regarding dance music. The technique used was by asking several questions through a closed questionnaire. The results of this survey showed that out of 30 students (n = 30, 100%), the following answers were obtained: students had studied dance accompaniment music (n = 7, 23.3%), students had learned the basics of playing traditional musical instruments or gamelan (n = 5, 16.6%), students knew the function of music in dance (n = 11, 36.6%), students had made dance creativity by making their own music (n = 2, 6.6%), students had experienced being music players to accompany dance works (= 4, 13.3%), students understood the existence of internal and external music in dance music (n = 6, 20%), students had processed internal and external music for created dance works (n = 4, 13.3%). This data showed that the overall answers from dance student respondents were not in a positive condition in having an understanding and skills about dance music. Most dance students always asked composers to fill in the musical elements in dance works that they created. In addition, the majority of students always started making movements through existing dance accompaniment music.

**Table 1.** Students' Understanding and Early Skills about Dance Music

Questions	Yes	No
Have you ever studied music to accompany dance?	7	23
Have you ever learned the basics of playing traditional gamelan music?	5	25
Have you ever made your own music for your new dance works?	2	28
Have you ever been a music player to accompany dance?	4	26
Do you know the function of music in dance?	11	19
Do you know about internal music and external music in dance music?	6	24
Do you know how to cultivate music and develop dance music for your new dance works?	4	26

Not all dance students were able to process and develop their own dance music for the needs of creativity in creating new dance works that were created by each dance student. The next question posed to dance students were about their awareness of the importance of dancers or choreographers in understanding the elements of music in dance to design their own music concepts for the new dance works they created (n = 27, 90%). The second question is related to the importance of dancers and choreographers in mastering the concept of music in dance to give them skills in processing and developing dance music for the new dance works they created (n = 20, 66.6%). From these data, students realized how important it was for dancers or choreographers to have an understanding and skills about dance music, both for the needs of learning dance at school and for the needs of the creative process in making new dance works.

**Table 2.** Students' Understanding of the Importance of Music in Dance Creativity

Understanding the Importance of Music in Dance Creativity	Yes	No
Do you know that a dance creator must design their own music concept for the needs of the new dance works they create?	27	3
Do you know the consequences that arise from a dance creator who does not have the	20	10

understanding and skills in mastering the concept of music in dance?

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### **3.2. Action: Application of Dance Music Learning**

Overall, the stages of learning dance music were carried out in 6 main activities, which were: (1) Learning the basics of playing Indonesian West Java traditional music (gamelan salendro), (2) Appreciating internal and external music, (3) Exploring internal music, (4) Exploring external music, (5) Evaluating group work results, and (6) Presenting the group work results. The six stages of learning activities had the aim of training students 'sense of musicality, training students' analytical skills about dance music, providing understanding regarding music elements such as pitch, tempo, rhythm patterns, and dynamics, developing creative abilities in designing music concepts for a new dance work they created, and training dance students to be able to make their own dance music.

#### **Stage 1: Learning the Basics of Playing the Traditional Gamelan Salendro Musical Instruments**

This stage was carried out to provide musical experience and skills that were often used in music that accompanied traditional dances. At the beginning of the lesson, students were introduced to the types of musical instruments that they were going to play simultaneously (traditional salendro gamelan music ensemble, such as two *sarons*, *peking*, *demung*, *selentem*, *rincik*, *bonang*, *kenong*, *goong*, and *kendang*, and a *rebab* if there were students who could play it). Students were required to know the function and to play these musical instruments in several song patterns and beat with several levels of tempo and dynamics of traditional *salendro* gamelan ensemble, such as *sawiletan* (medium tempo), *2 wiletan* (slower tempo), *kering* (fast tempo), and *gurudugan* (faster tempo). From learning the basic ways of playing the traditional *salendro* gamelan musical instrument, dance students were trained to have a stronger sense of rhythm to some of the transition in the tempo played according to the musical instrument they were learning. Students were given subject matter in playing the musical instruments of *saron*, *peking*, *demung*, *selentem*, *rincik*, *bonang*, *kenong*, *goong* and *kendang* which were played simultaneously (traditional gamelan music ensemble performance). Students were directed to be able to feel the rhythmic patterns, tempo, and dynamics of playing the traditional West Javanese salendro gamelan music. At this stage, students had not been directed to be able to create music for dance, but rather were taught to be able to play music used to accompany the dance that was performed. For this reason, it was necessary to continue with learning actions that could guide dance students to understand the role and position of music in a dance presentation.

#### **Stage 2: Appreciation of Internal and External Music**

At this stage, students were directed in internal and external music appreciation activities from several examples of dance music which were often used as musical accompaniment to a dance. In this internal music appreciation, students were assigned to analyze the music of the "Saman" dance and the "Sile" dance from West Sumatra. In the music that accompanied the Saman dance, when the movements were performed, the song and tempo sung by a Saman or Syeh were emphasized. Syeh's position in the Saman dance could not be separated from the presence of movement. In addition, Syeh acted as a conductor to start and stop the movement itself. This explanation was supported by the results of Sun et al.'s (2020) research, which showed that in the movement of a dancer there was a musical concept performed by the dancer themselves. Apart from the Saman dance, there was also

the "Sile" dance. The music that accompanied this dance was the result of the effect of the movement by tapping or hitting the hands to the clothes worn, which were *pangsi* pants.

In the appreciation of external music, students were assigned to analyze the accompaniment of the appreciated basic Sundanese dance music. Sundanese dance attitudes and movements mostly followed the rhythm and accents of *gendang* (traditional drum) beats. It was different from the music that accompanied the Nusantara dance. One of the most appreciated Indonesian dance accompaniments was the Gambyong dance from Central Java, which also used the *salendro* gamelan. This Gambyong dance's accompaniment had dance movements that mostly followed the beats of the song. In other words, the dance movements did not follow the *gendang* beats like Sundanese dance's accompaniment. Apart from the Gambyong dance, the accompanying music for the Pendet dance from Bali was also appreciated. Pendet dance's accompaniment emphasized the rhythm and accents in the rhythm of the song. Then, after appreciating several samples of dance accompaniment music, a question-and-answer session was conducted to find out students' understanding in responding to dance music.

After the internal and external dance music appreciation activity, discussions and question-and-answer sessions were held. Through the activity of appreciating several forms of dance music presentation, students understood the elements of the power of music in a dance presentation better. Some examples of dance music appreciated by students further clarified the role and function of music in a dance presentation, each of which had different musical characteristics. This stage was an important part of inspiring students to be able to design musical concepts for a new dance work to be created.

### **Stage 3: Internal Music Exploration**

In this internal music learning stage, students were assigned to explore sound as a group using their body parts as the media. Before going to the exploration stage, the ways to make sound through movement were explained first because the sound produced was also expected not to interfere with movement and vice versa. The internal dance music learning model for dance students was given before the internal music exploration stage without using a property.

Before giving the group assignment, the ways to develop sound rhythms in a fixed tempo were explained first. The development of rhythm in a fixed tempo was exemplified first by practicing in the form of clapping by five students at a fixed tempo, while the example of processing rhythm was exemplified by applause by the lecturer. (Mason, 2012) explains that the existence of music in dance provides the dynamic strength and sense of the rhythm of the dance being performed. Therefore, this learning stage was important to provide an understanding of building work structures with good dynamic power so that the dance work patterns created did not have a flat and monotonous impression.

After giving examples of fixed tempo and rhythm development, lecturers and students held discussions related to the material studied during the lesson. As a result, there were some students who still did not understand how to cultivate rhythm in a movement that was explored into a dance work that was performed. Students' incomprehension was more about the problem of consistency in



processing variations or sound motives that were always the same as fixed tempo sounds. The explanation given to this learning problem had to emphasize the sense of the musicality of each player in playing the music, for example as a rhythm player or as a tempo regulator. It was because realizing or creating music could not only be done by one person. In other words, playing music or creating music involved more than one music player. This learning problem was explained until students understood the processing of the music according to their respective roles. After all students understood the explanation from the lecturer, then students were given an assignment to practice in groups. In addition, before finishing the lecture, an evaluation of the results of the group assignment was carried out.

#### **Stage 4: External Music Exploration**

At this stage of learning, the material given to students was to explain external music using properties. At the beginning of the lesson, the lecturer explained the definition of external music, which was music played by a musician, where the sound produced did not come from the body of the dancers, like the musical elements in traditional dance performances. External music in question was the accompanying music played by a musician. However, in this research, the external music was the existence of external musical elements in dance processed using properties for the sake of movement.

Overall, the delivery of material at this meeting ran smoothly. However, there were still some students who had not understood how to process external music using dance properties for the purpose of creativity in making dance works. The external music in question referred to the sounds performed and explored, and in addition to accompanying the movement outside of the dancer, it could also be processed when the dancer made a movement. The movements that were carried out did not deliberately create organized dance movements but rather cultivated the improvisation skill of the dancers' movements. The movement shown was a result of making a sound from a property or device that produced the sound used by the dancer when performing a dance move.

The learning material at this meeting was not easily understood by students, because to provide an understanding of how to create or arrange music for a new dance work, it was necessary to do hands-on practice in accordance with the properties to be used in the dance work created. The learning strategy that was carried out was by giving assignments to groups of students to try to explore the sounds that were adjusted to the properties and concepts of the dance work created. Through this learning activity, students were expected to have understanding and skills in exploring external music from the sound source of the dance properties used in the dance works created.

#### **Stage 5: Evaluation of Group Work (Presenting External Music from Exploration Results)**

At this stage, learning activities were directed at evaluating the results of the exploration of internal and external music carried out by students in groups. From the results of the presentation, the performance of each group was quite diverse and interesting to be used as evaluation material for students who had background abilities in the music field. However, the advantages and disadvantages of each student could be used as lessons for the development of dance creativity among dance educators at a later date. The performance of the exploration results from each group was felt to be still fixated on the external music presentation, where the use of the property had not been fully used

for the benefit of aesthetic motion (still used as a musical instrument). Supposedly, the presentation of the property had two functions, which as a tool that produced sound and as a tool that strengthened the dance movements that were displayed. After responding and explaining again the intended use of the property, the lecturer reassigned students to explore and improve exploration results outside of meeting hours to be re-evaluated at the next meeting. This activity of evaluating students' works was carried out to provide direct feedback related to the dance works they had created, especially in terms of using elements of music in their new dance works. This activity was carried out so that students were aware of all the deficiencies that existed in the dance works they created so that in the future their work can be better in all aspects of its presentation.

### **Stage 6: Performance of Group Work (Presenting External Music from Exploration Results)**

This stage of learning activities was the final stage of learning carried out by students in learning dance music. At this stage, students were required to present the results of the creative process of dance work in exploring internal music and external music. After conducting an evaluation in the previous week, the performance of each group could be said to be quite developed and there were some positive improvements because they took into account the suggestions given in the previous meeting. The focus of the performance presented was emphasized more on the exploration of external and internal dance music used in new dance works created by students. This performance activity could be used as preparation for the final semester exams in this course. The aspects observed in this meeting were more focused on the aspects of students' skill in the mastery of the pitch elements in the dance music that was displayed, the mastery of the tempo, the dynamics of the presentation of the dance music that was made, and the skill to place motion patterns according to the rhythm that was made. This stage needed to be done to provide understanding, knowledge, and skills in arranging dance music in accordance with the needs of the new dance works that were created. In addition, this stage was used to provide awareness of the importance of a dancer's understanding of the existence of musical elements in a dance presentation.



Figure 1. The Presentation of Learning Outcomes (Final Exam) of Internal & External Mixed Music of Pillow Music (Photo: Panji, 2020)

After being given an evaluation, students were re-assigned to improve their work. The results of the exploration were used as material for the Final Semester Examination material. This exploration exercise task was assigned until the next meeting as material for preparation for the Final Semester Examination (UAS).



Figure 2. The Presentation of Learning Outcomes (Final Exam) of Basin Music (Photo: Panji, 2020)

#### 4. Discussion

##### Post-Action Analysis

This stage presents the results of the evaluation of learning dance music carried out at the beginning of the learning (pretest) and evaluation of learning at the end of the learning (posttest). The evaluation results were analyzed through the Paired Sample t-Test as follows:

**Table 3.** Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1				
Pretest	60.7000	30	7.80870	1.42567
Posttest	79.7000	30	4.65462	.84981

The output above was descriptive statistical data that showed the mean of the pretest of 60.7000 and the mean of the posttest of 79.7000. Furthermore, the standard deviation of the pretest was 7.80870 and the standard deviation of the posttest was 4.65462. Meanwhile, the standard error of the mean of the pretest was 1.42567 and the standard error of the mean of the posttest was .84981. The results of the descriptive statistical data analysis were calculated from 30 student samples who contributed as respondents.

**Table 4.** Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 Pretest- Posttest	3	.642	.000

The output in Table 3 was used to find out whether a relationship between the pretest and posttest results existed. The correlation score of pretest and posttest of 30 respondents was 0.642. Meanwhile, the results of the analysis showed that the sig.  $0.000 < 0.005$ . These data conclude that there was a relationship between the pretest and posttest scores.

**Table 5.** Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pretest- Posttest	-19.00000	6.00000	1.0954	-21.24044	-16.75956	-17.345	29	.000

The output above showed that the mean was  $-19.00000$ , the standard deviation was  $6.00000$ , and the standard error mean was  $1.09545$ . In addition, in the confidence interval of the difference, the lower score was  $21.24044$  and the upper score was  $16.75956$ . Furthermore, the t-score of the paired sample test results was  $-17,345$ , the df was  $29$ , and the sig (2-tailed) was  $0.000$ . The data from this analysis showed that there was a significant difference between the pretest and posttest results. The conclusion of the results of this analysis was based on the sig value decision of  $0.000 < 0.005$ . The data analysis was taken from 30 samples of students' scores during dance music lectures.

**Table 6.** Analysis of Posttest Results

Assessment Indicators	Description	Total	%
Pitch	The student's skill to understand the vibrations of the tone that was heard	21	70
Tempo	The skill to cultivate the developed fast and slow dance music	24	80
Dynamics	The skill to make up and down the structure of the dynamics of the dance music that was made	19	63.3
Rhythmic Patterns of Motion	The skill to place motion according to the rhythm of the music that was made	26	86.6

Table 6 showed that out of 30 students (100%), twelve students (43.3%) had the skill to understand the character and quality of the tone or sound played in dance music, 21 students (70%) had the skill to process music based on the tempo (slow, medium, and fast), 19 students (63.3) had

the skill to make dramatic music structures used in the dance works they created, and 26 students (86.6%) had the skill to process movements according to the rhythm of the music performed.

The results of the analysis of the pretest and posttest showed an increase in students' understanding and skills about dance music. In the pretest, the majority of students did not have the skill to play music and understand the elements of tone and sound played, did not have high musicality in realizing the tempo and dynamics in dance music, and did not have experience and skills in playing music. From the results of the posttest, nine students (30%) did not have musical sensitivity in sensing the vibrations of tones and sounds heard, six students (20%) were unable to process the tempo (fast, medium, and slow) in playing the dance music, eleven students (36.6%) did not have the skill to make dramatic music structures for the creativity of their dance works, and four students (13.3%) were unable to place their movements according to the rhythm of the dance music performed. The skill of dance music was very important in getting a complete impression in the presentation of dance works created by students, including the presentation of dance and music (Smith-Autard, 2010). Dancers could explore music as a stimulus to express various creative movements in accordance with their sense of musicality in interpreting the language of music they felt and heard. This concept was in line with Torp (2013) research that supports an interpretation of dancers in interpreting music.

Dance music learning was given to students in dance music lectures to provide an understanding of the relationship between music in dance as a part of the dance presentation system. This learning concept was supported by the results of research by Felföldi (1999) on the strong relationship between music and dance elements in an art performance. Movement in dance optimized the skill of the sense of sight, while the presence of music optimized hearing skill (Mason, 2012, 2014). In the context of performing dance, movement and music were assets to express messages and information to be conveyed through body language and sound (Camurri et al., 2005; Camurri, Mazzarino, & Volpe, 2003; Camurri, Mazzarino, Ricchetti, et al., 2003; Kleinsmith & Bianchi-Berthouze, 2012). Both could complement each other in conveying messages and information.

Exploration of music in dance provided understanding and knowledge to interpret the musical characters performed (Chung, 2009; Minors, 2009; Mawer, 2006; Minors, 2006). The fast and free tempo of music was used to create a happy impression of music (Krumhansl, 2002; Julia et al., 2019). The motion patterns shown had greater space and a fast tempo (Mason, 2012). A sad music atmosphere was built with a slow music tempo, minor harmonies, and constant dynamics (Krumhansl, 2002). This understanding of musicality was taught to dance students so that they were able to make dance music works according to the needs of the dance works they created.

## 5. Conclusions

The skill to process music for a dancer was needed when creating a dance work. This skill was related to the staging process of creating dramatic presentations of constructs in dance works and the dynamics of the dance concepts created. Learning dance music served as an alternative learning model to develop students' abilities in understanding music issues in dance. The existence of music in dance could not only be appreciated from the outside of the dancer (music player). In fact, the concept of music presentation produced by the dancers themselves also needed to be understood. The concept of processing dance properties and exploring internal music and external music was one of the learning approaches that could be taught to students to develop their musical abilities. Students needed a complete understanding of dance music when creating creative dance works to be created in the future.

## Recommendations

We recommend that dance students be given a more comprehensive understanding of dance music. This can help them in developing dance creativity. The development of the ability to make dance music with internal and external stimulation can be an alternative in learning to create dance music.

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