THE EFFECT OF LEARNING STRATEGY AND INTELLIGENCE MUSICAL RHYTHM OF LEARNING OUTCOMES HARMONY I

Uyuni Widiastuti¹, Harun Sitompul², Abdul Muin Sibuea²

¹Departement of Music Education, Universitas Negeri Medan (Unimed), Medan, Indonesia ²Departement of Educational Technology, Universitas Negeri Medan (Unimed), Medan, Indonesia

ABSTRACT: Strategy is as a systematic way of communicating the content of the lesson to the students to achieve certain learning objectives. Musical intelligence is present in every person at birth, because it is related to life and soul, most likely musical intelligence is present in the reality before birth and will be together as the essence of the soul after death. The purpose of this research is to know the difference of learning result of Harmony I course between group of students which is taught by contextual learning strategy with group of students which is taught by expository learning strategy which has musical intelligence of rhythm. This study uses quasi experimental research with 2 x 1 factorial design. The results of the study with the calculation of ANAVA at 0.05 stated that the learning outcomes of Harmony I student groups with musical intelligence of rhythms taught by contextual learning strategy is lower than the group of students who were taught by the strategy of learning expository. There is influence between learning strategies and musical intelligence rhythm towards the results of learning Harmony I. Conclusion that students with musical intelligence rhythm more appropriate taught using expository learning strategies.

KEYWORDS: Learning Strategy, Rhythmic Intelligence, Harmony I

INTRODUCTION

The world of education today tends to emphasize the cognitive aspect that leads to intellectual intelligence alone, so that the birth of human robots, human sources that have no spirit or character, skilled humans who are less ethical, and gave birth to pragmatic-minded humans. Therefore, intellectual intelligence needs to be balanced by emotional intelligence, which in this case is done through art education .The education of music arts can improve learning, because music is an integral component of the historical era, so music provides an effective approach that identifies issues, behaviors, events and values within a certain period. Therefore music is very important in the curriculum, for reasons: (1) Music is a valuable knowledge; (2) music presents cultural heritage; (3) music itself is intelligent and expressively independent, enabling the expression of the height of thoughts and feelings, (5) music teaches students how to relate to others, both within their own culture as well as in foreign cultures; (6) music improves learning on all other subjects; (7) music helps students know that not all life can be measured; (8) music exalts the spirit. Musical intelligence is present in every person at birth, since it is related to life and soul, most likely musical intelligence is present in the reality before birth and will be together as the essence of the soul after death [1]. Every child has musicality born with the capacity to sing and compose music. Therefore it is very necessary parents who care about the rich music environment to help children in achieving basic musical competence and develop musical intelligence during childhood, because in childhood musical intelligence develops most easily. Musical intelligence of rhythm can enhance various physical skills such as: aerobic exercise. Rhythm and flow of music can result in improved coordination, regularity

and speed of activity in a fun way. Jumping, marching, running or dancing to music will develop rhythm and flexibility. The development of rhythm can be trained by reading rhyming notation, then train clapping and stopping according to the written notation. Rhythm exercises can be developed slowly according to the tempo and degree of difficulty in rhythmic patterns [2]. Rhythm exercises can be developed using songs that are sung directly. From the above explanation can be known the purpose of this study is to know the difference of learning outcomes Harmony I courses between groups of students who learned with contextual learning strategies with groups of students who learned with expository learning strategies that have musical intelligence rhythm. Learning strategy is the planning and implementation used by an educator to deliver the material by following the steps that have been determined in order to achieve the expected learning objectives. Learning strategy is a combination of the sequence of activities, how to organize learning materials and students, equipment, and materials and time spent in the learning process to achieve the learning objectives that have been determined Suparman [3]. Learning strategies help learners to receive learning materials and help educators provide learning materials. Contextual learning strategy (CTL) is a learning concept that helps teachers relate between material taught to real-world situations of students and encourages students to make connections between their knowledge and application in their daily lives by involving seven components: constructivism, inquiry, community learning, modeling, reflection, authentic assessment [3]. Contextual learning is a learning concept that assumes that children will learn better if the environment is created naturally, meaning that learning will be more meaningful if the child is working and experiencing what he or she learns, not just knowing it [4]. This is reinforced by Suparman's findings [5] which suggests that students who are taught with contextual learning can significantly achieve better than conventional learning. Direct instructional is identical to expository, direct learning requires clear actions and decisions from the teacher during the planning while doing the learning and timing of the results. There are two goals of direct learning that is to maximize student learning time and develop independence in achieving and realizing the goals of education. Musical intelligence includes a person's ability to be sensitive to the non-verbal sounds that surround him, including in this case the tone and rhythm. Musical intelligence involves its own rules and thinking structures, which are not necessarily related to other types of intelligence [7]. This is also reinforced by Sumaryanto's research results [8] which suggests that the achievement of music can be influenced by musicality that can be developed through directional and regular practice. Mudjilah research [9] suggests a child's musical ability can be seen from three dimensions of distinguishing tones, imitating melodies and responding to rhythms. Research Susan W Mills [10] argues that the school climate is very influential in determining the role of musical intelligence.

Methods of the research

In the treatment design in this study using $2 \ge 1$ factorial design which contained a different independent variable (contextual and expository) and one moderator variable (musical intelligence rhythm), the dependent variable in this study was the result of Harmony I.

The hypothesis test [11] was performed by variance analysis (ANAVA) with factorial design 2 x 1. Further tests were performed by using the Tukey test [12]. Before the first hypothesis test, the test of the analysis requirements consists of: normality test, homogeneity test, regression linearity test [13], significance test of regression effect and (5) line alignment test.

Discussion

Description of Learning Data Result

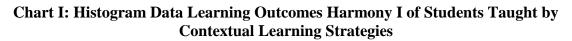
a. Description of Learning Result Data Harmony I of Students Taught by Contextual Learning Strategy.

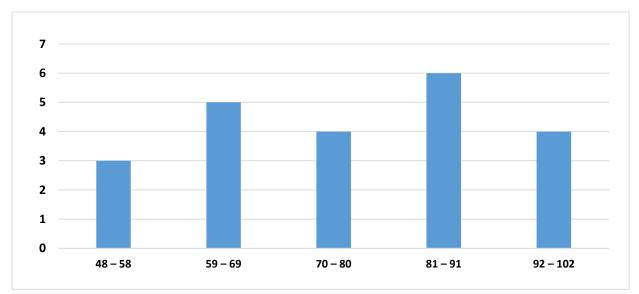
Harmoni I study result data of student students taught with contextual learning strategy known mean = 76,50; mode = 86.00; median = 77.75; variance = 222,36; standard deviation = 14.91; maximum score = 100; and minimum score = 48. Distribution of learning outcomes Harmony I students who are taught with contextual learning strategies can be seen in Table 1.

Table 1. Description of learning result data of Harmoni I students taught by contextual
learning strategy.

Interval Class	fabsolut	f _{relatif}
48 - 58	3	13.64
59 - 69	5	22.73
70-80	4	18.18
81 - 91	6	27.27
92-102	4	18.18
total	22	100

Based on the data in Table 1 above it can be explained that with the mean of 76.50 being in the interval class of 70 - 80, this means that there are 18.18% of respondents in the average grade score, 45.45% of recipients above the average score class and 36.37% of respondents below grade average score. Graph histogram data learning outcomes Harmony I students who are taught with contextual learning strategies presented as follows:





b. Descriptions of Learning Outcomes Harmony I of Students Taught by Expository Learning Strategies.

Data of Harmony I study result of students who taught with expository learning strategy known mean = 74,85; mode = 72,17; median = 74.50; variance = 110.76; standard deviation = 10.52;

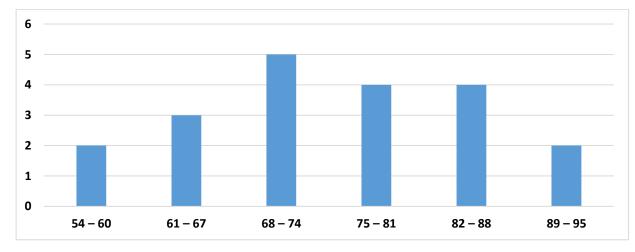
highest score = 92; and lowest score = 54. Distribution of learning result data Harmoni I students who are taught with expository learning strategy can be seen in Table 2:

Table 2. Description Of Learning Result Data Of Harmony I Students Taught ByExpository Learning Strategy

Interval Class	$f_{absolut}$	f _{relatif}
54 - 60	2	10.00
61 – 67	3	15.00
68 - 74	5	25.00
75 - 81	4	20.00
82 - 88	4	20.00
89 – 95	2	10.00
total	20	100

Based on the data in Table 2 above it can be explained that with mean 74.85 rounded to 75 is in the interval class 75 - 81, this means there are 20.00% of respondents in the average score of the class, 30.00% of respondents above the score average class and 50.00% of respondents below grade average score. Furthermore, histogram graph of learning result of Harmony I student which is taught with expository learning strategy is presented as follows:

Chart 2: Histogram of Learning Result Of Harmony I Student Which Is Taught With Expository Learning Strategy



c. Description of Learning Data of Harmony I of Students with musical intelligence rhythm.

Data of Harmony I study result of student with musical intelligence of rhythm with mean = 63,80; mode = 69,17; median = 64,36; variance = 54,76; standard deviation = 7.40; highest score = 74; and lowest score = 48. Distribution of Harmony I student learning outcomes with musical intelligence of rhythm is presented in Table 3.

Interval Class	fabsolut	f _{relatif}
48-52	2	9.52
53 - 57	2	9.52
58-62	5	23.82
63 - 67	4	19.05
68 - 72	6	28.57
73 – 78	2	9.52
Total	21	100

Table 3. Description of learning data of Harmony I students taught with musical intelligence rhythm.

Based on the data in Table 3 it can be spelled out that with mean 63.80 in the interval class of 63 - 67, this means there are 19.05% of respondents in the average score of the class, 38.09 respondents below the average score of the class and 42, 86% of respondents below the grade average score. The histrogram graphics of Harmony I students with musical intelligence rhythm are presented as follows:

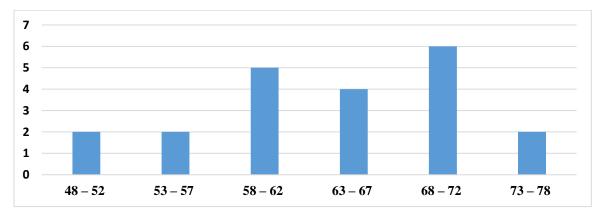


Chart 3: Histrogram graphics of Harmony I students with musical intelligence rhythm

d. Data of Harmony I study result of students who are taught by contextual learning strategy and musical intelligence of rhythm

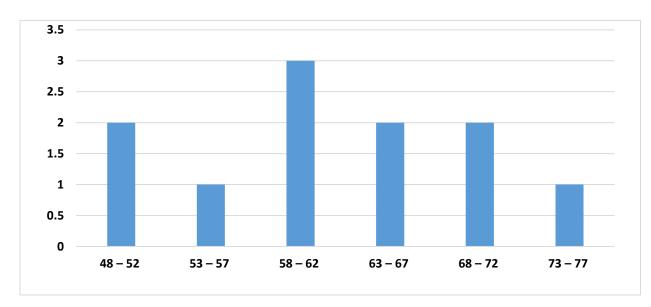
Data of Harmony I study result of students who are taught by contextual learning strategy and musical intelligence of rhythm is mean = 61,82; mode = 60,83; median = 61.67; variance = 66,36; standard deviation = 8.14; highest score = 74; and the lowest score = 48. Distribution of learning outcomes Harmony I students who are taught with contextual learning strategies and musical intelligence rhythm are presented in Table 4 below:

Table 4. Data description of learning outcomes Harmony I students who were taught with contextual learning strategies and musical intelligence rhythm

Interval Class	$f_{absolut}$	f _{relatif}
48-52	2	18.18
53 - 57	1	9.09
58-62	3	27.28
63 - 67	2	18.18
68 – 72	2	18.18
73 – 77	1	9.09
total	11	100

Based on the data in Table 4 above it can be explained that with an average of 61.82 are in the 58 to 62 class intervals, this means there are 27.287% of respondents on average class average, 45.45% of respondents above the average score class and 27.27% of respondents below grade grade. Graph histogram of learning result Harmony I student who taught with contextual learning strategy and musical intelligence of rhythm presented as follows:

Chart 4: Histogram of learning result harmony I student who taught with contextual learning strategy and musical intelligence of rhythm



e. Description of data from Harmony I study result of students who are taught by expository learning strategy and musical intelligence of rhythm.

Data of Harmoni I study result of students who are taught with expository learning strategy and musical intelligence of rhythm is mean = 67,00; mode = 70.50; median = 68.50; variance = 37.78; standard deviation = 6.15; highest score = 74; and the lowest score = 54. Distribution of Harmoni I learning outcomes of students who were taught with expository learning strategies and musical intelligence rhythms are shown in Table 5

Table 5. Description of data on the learning outcomes of Harmony I students taught
with expository learning strategies and musical intelligence rhythm

Interval Class	$\mathbf{f}_{absolut}$	f _{relatif}
54 - 58	1	10.00
59 - 63	2	20.00
64 - 68	2	20.00
69 - 73	4	40.00
74 - 78	1	10.00
total	10	100

Based on the data in Table 5 above it can be spelled out that with mean 67.00 being in the 64-66 interval class, this means there are 20.00% of respondents on the average grade score, 50.00% of respondents above the average score class and 30.00% of respondents below grade average score. Graph histrogram Harmony I learning result of students who are taught with expository learning strategies and musical intelligence rhythm presented as follows:

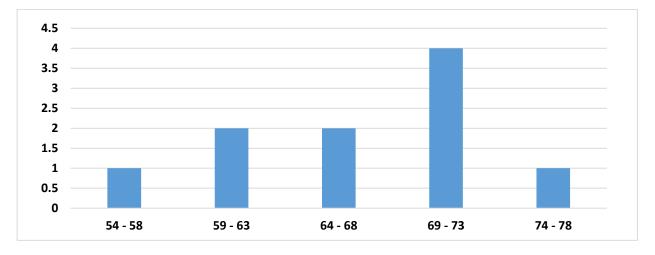


Chart 5: Histogram harmony i learning result of students who are taught with expository learning strategies and musical intelligence rhythm

Testing Requirements

a. Normality Testing

Testing of normality of learning result of Harmony I study was done by Liliefors test

can be seen in table 6.

Table 6. Summary of Normality Test Analysis

No	Group	Lobservasi	Ltabel	Information
1	Student Harmoni I Learned Results With Contextual Learning Strategy	0,1216	0,1832	Normal
2	Student Harmoni I Learning Results Taught With Expository Learning Strategy	0,0564	0,1900	Normal
3	Student Harmoni I Learning Results With Musical Intelligence Rhythm	0,1300	0,1866	Normal
4	Student Harmoni I Learned Results With Contextual Learning Strategy And Musical Intelligence Rhythm	0,1083	0,2490	Normal
5	Student Harmoni I Learned Results With Expository Learning Strategy And Musical Intelligence Rhythm	0,1292	0,2580	Normal

b. Homogeneity Test

Summary of homogeneity test of learning result data Harmoni I students taught by contextual learning strategy with expository learning strategy can be seen in Table 7.

Table 7. Summary of Homogeneity Test Group Analysis Learning Outcomes Harmony
I Students Taught With Contextual Learning Strategy With Learning Strategy
Expository.

Data Group	Fhitung	Ftabel	Information
Learning Outcomes Harmoni I Students Taught Using Contextual Learning Strategies And Learning Strategies Expository	2,007	2,144	Homogen

CONCLUSION

The results showed that there was a difference of Harmony I learning outcomes between students taught by contextual and expository learning strategies. This provides assertion and explanation that this study provides information that there is an influence between learning strategies on learning outcomes Harmony I.

The difference of musical intelligence of rhythm of students taught by using contextual learning strategy and expository learning strategy differ can be proved by Scheffe test which shows Fcount = 4,30> Ftable = 2,859 at α 0,05 and the result of residual average test is obtained by res reset A1B2 = 68.71 smaller than res A2B2 = 71.00. Thus it can be concluded that students with musical intelligence rhythms are more aptly taught by using expository learning strategies.

REFERENCES

- [1] Montello Louise, *Kecerdasan Musikal (Essential Musical intelligence)*, Alih bahasa Alexander Sindoro, Batam: Lucky Publisher, 2004.
- [2] Suparman, Atwi.2001. *Desain Instruksional*, Jakarta: UT, pp. 167.
- [3] Pen Ronald, Introduction to Music, New York: McGraw-Hill, 1992.
- [4] Kunandar, Guru Professional, Jakarta: Rajawali Press, 2007.
- [5] Suparman, Lalu, 2013. The Effect of Contextual Teaching and Learning Approach and Achievement Motivation Upon Student's Writing Competency for the Tenth Grade students of SMA Negeri 1 Keruak in the Academic Year 2012-2013. E-journal. Bali: PPs Universitas Pendidikan Ganesha.
- [6] Joice, Bruce, etc, Bruce. 2011. *Models of Teaching*, Newyork: USA Pearson Education, Inc. Publishing as Allyn &Bacon, One lake Street Uppet Saddle River, pp. 368.
- [7] Linda Campbell, etc. 1996. *Teaching & Learning Through Multiple Intelegences*, USA: Schuster Company. pp. 133.
- [8] Sumaryanto, Totok. 2000. *Kemampuan Musical (Musical Ability) dan Pengaruhnya Terhadap Prestasi Belajar Musikal*, Semarang: Jurnal Harmonia, Vol.1 No.1/Mei-Agustus, 2000.
- [9] Mudjilah Hanna Sri, 2014. *Pengembangan Tes Kemampuan Musikal Anak*, Disertasi; Universitas Negeri Yogyakarta, pp.86.
- [10] Mills, W Susan, The Role of Musical Intelligence in a Multiple intelligence Focused Elemntary School, (*International Journal of education and the Arts. 2 (4).*)Sep 2001) (ISSN: 1529-8094) copy of record can be obtained. <u>http://www.ijea.org/v2n4/index.html</u>, 2001.

Published by European Centre for Research Training and Development UK (www.eajournals.org)

- [11] Kadir. 2015. *Statistika Terapan : Konsep, Contoh, dan Analisis Data dengan Program SPSS/Lisrel dalam Penelitian.* Jakarta : Rajawali Pers.
- [12] Glass, R.V., Hopkins, K.D. 1984. *Statistical Methods in Education and Psychology* 2nd *Edition*. New Jersey: Prentice-Hall, Inc., pp. 371.
- [13] Sudjana. 2005. Metode Statistika. Bandung : Tarsito, pp.330-337.Agung, IG. N. 2006. Statistika Penerapan Model Rerata- Sel Multivaria dan Model Ekonometrika dengan SPSS. Jakarta: Yayasan Sad Satria Bhakti, pp. 284