

Developing Song Reproduction Drill to Improve Solfeggio Learning Achievement

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Abstract

This article aims to describe of how to improve the learners ability and selfeggio learning achievement by developing the drills of song reproduction, at the music major, art and language faculty, Padang state university west sumatera Indonesia. Learners' prior ability was low since they have never been taught about music before in their former schools, no learning experience about solfeggio, no experience about procedural solfeggio. The writer intended to conduct an experimental research on the basis of production research by designing a new model of solfeggio learning for the teachers and the learners as well, by following mixed research methodology. The design phase consisted of; designing learning activity and the procedures. Developmental phase consisted of; developing the lesson plan and all things dealing with learning solfeggio. The research result proved that the new designed model of learning is helpful, valid, reliable, and practical to use either by the teachers or by students.

Keywords: Song reproduction drill, Solfeggio learning achievement, Lesson plan.

I. INTRODUCTION

Learning solfeggio with song reproduction is a kind of a methods to improve the ability of solfegging by using learning approach. Song reproduction drills for the purpose of improving the ability of learning solfeggio consists of : analysis, design, development, implementation, and evaluation. Analysis phase consisted of : background identification, former learning experience, and initial ability. Etimologically, solfegio (English), solfedge (France), or solfa is the ability of sight-hear on music focusing on rhythm, interval, and melody. henceforth, Sumaryanto (2005) stated that solfegio or solfa is the ability of sight-reading upon the gamut (melodies) stepping ascending and descending, skipping ascending or descending on the melody scale using the syllable of : do re, mi, fa, sol, la, ti. The coherence of how to pronounce the melody bearing to the chain of melody with its interval either moving in steppingly, skippingly, or step forward and backward, all created the harmony of melody. besides sight-reading, solfeggio also enable the learners to read other musical elements, such as : rhythm in short versus long, simple versus complete melody in a unit.

Learning solfeggio is an activity of how to make music as a means of communication throughout sounding harmony by the rhythm of proper melody when it is produced. The harmony means the balance or concordance of a unity of melodies in a range of musical phrase or sentence with a proper rate. Solfeggio is also defined as a science of interpreting the interval of melody which aims to know the distance of each/between melody, by singing various melodies together with their value, singing the melodies interval moving stating, stepping ascending or descending, skipping ascending or descending, see, (Jones, 1974; Ottman, 1961; Jamalus, 1992; Lumbantoruan, 2013). Due to learning solfeggio, the writer found that there are 3 approaches in teaching sight-reading melody especially in teaching piano, namely : a) reading melody together with tone interval. b) rhytm drills. c) collaboration between sighth and reading. The drill is initiated by rhythm for the purpose of good identification and combination between basic tempos among various notes or melodies. Those are the problems that the students encountered at Language and Art Faculty of UNP in Padang West Sumatera Indonesia, and the teacher as well. This article reveals drilling for reading the melody orally means that to pronounce the song that has been mastered, improvisation drill that aims to familiarize them with tempo namely the speed of melody and the color, as well together with the melody intensity. The next drill is to practice how to read the melody directly which is controlled by hearing. Dalby (2015) states that reading music should be initiated by concordance between rhythm and duration of notes duration then followed by reading partial rhythm in 2 biramas. Henceforth, ear-training and sigh-reading in learning solfeggio is a useful learning to improve the ability of mastering notes/melody, interval, and melody itself. Moreover, Merritt (2016) in his book entitled: *Comprehensive Aural Skills: A Flexible Approach to Rhythm, Melody, and Harmony*, stated that learning solfeggio is better earning sequentially and continuum, starting from rhythm to melody then to harmony. Rhytm as a musical structure consists of : 1) notasion, 2) pulsa, 3) marking birama, 4) tempo or metronome, 5) rhytm pattern. Melody as a musical structure consists of : 1) melodies, 2) de nada, 3) musical scale (gamut), 4) key tone or basic tone, 5) interval, 6) pattern of melody. Concerning about learning solfeggio, there are many students at music department of FBS, Universitas Negeri Padang (Padang state university) who get difficulties in learning such as: a) unable in rhythm sight-reading, b) unable in melody sight-reading, c) misunderstood towards solfeggio learning. For such various problems above, it is suggested to get win win solution. There are 2 ideas according to the experts of how to solve the problems bearing to solfeggio. Firstly, Johnstone (2013) states that besides sight-reading, ear-training, and sight-singing there are some other activities to sharpen improvisation. The writer intended to conduct a research for the purpose of helping such problematic students and teachers to encounter the problems of learning, for instance, improvisation as such a song reproduction becomes a challenge for the music teachers since there are any problems arisen pedagogically. Johnstone said that improvisation or song reproduction can increase high

thinking and actively engaged in learning. Secondly, Mishra (2014) stated that sight-reading is an acuration among all the skills that have been ever mastered before, and the factors are : a) improvisation (song reproduction), b) ear-training, c) technique, d) music knowledge. Melody improvisation is expression of melody which is created in the known/unknown songs. song ear training is the specific ways taken to enease in understanding rhythm, interval, and melody. There are 2 techniques of listening to melody namely, ear-training and sight-reading of melody. Knowledge of music is correlated to concept understanding and procedural skill or cognitive task in solfeggio learning. Improvisation or song reproduction is an example of sight-reading skill. Sight-reading that was explored in this study was a way of improvisation practice.

II. METHODE

This research belongs to experimental research, the subject of the research was the students of music program study at UNP who treated to improve the echievement of learning solfeggio by improvisation or songs reproduction. Before practicing improvisation, it was data gathering firstly to do, and to know the students background of former learning experience, prior ability in solfeggio. Technique of data gathering was done by pre-test, interview, and tryout. Data that were collected dealing with song reproduction namely : 1) introduction, which was similar to learning guide from the lecturer to the students. 2) Learning material, of which the lecturer guided the students about known songs, solfeggio, giving learning experience in pre-activity, whilst activity, and post activity of learning process. At the post activity, the students got a post-test of songs reproduction and songs sight-reading, and self-task. 3) doing evaluation upon the application of developing song reproduction and learning solfeggio. Learning is a programmed and realized effort aiming to have positive changing in catching the goals. The process of developing songs reproduction drills on solfeggio subject matter is a bit different and specific rather than generally some people do. Doe to the purpose stated above, to avoid mallpractical learning, it was better to do : a) collecting various issues, b). difference identification, c). analysis for selecting, d) problems identification, e) students chararterisation, f) goals and priority identification, g) goals setting, see Sanjaya (2008:93). All the collected information at art major in Padang State University was done to avoid such a mallpracticed learning that lasting failure in education. From the gathered issues, it was found that students as art department graduators from Padang state university were not able to do sight-reading on songs. The problem that was raised around the society is that the graduators from musical department was less qualified and out of marketing quality. One of the identified reason due to the problem was dealing with teaching method of which the lecturers used to use conventional method, sight-reading was taught by memorizing the lyric of songs. The problem makers of learning solfeggio were; limited media to use along the process of learning, lacked of learning resurces.

III. RESULT AND DISCUSSION

Learners characteristics at arts department of Padang State University are low motivation to learn, low knowledge and skill in solfeggio, less discipline. The main target of learning solfeggio was the learners owned solfeggio knowledge and skillful to practice. The main goals were to be able to read the song in accordance with rhytm and melody to gain the main goals stated above, goal setting should be leveled, integrated, and continuum.

1. The process of songs reproduction drill development

a. Analysis

The analysis process aims to clarify the learners' problems to be the basis of designing songs reproduction development, that purposively was set to solve their problems. There were some aspect as the target of analysis:

(a) learners' background that referred to their former schools and graduation ear academic. (b) learning condition that referred to environment, (c) the analysis of solfeggio as subject matter and task characteristics, (d) learners' prior ability, (e) learners' demand upon the solfeggio subject. The students who received at music concentration of FBS-UNP in academic year of 2018/2019 came from state or private senior high schools, vocational schools, religious senior high schools of west sumatera, north sumatera, Jambi, Bengkulu, South Sumatera, and Riau provinces. They graduated in various academic years such as: 2016, 2017, 2018. They were selected through SBMPTN (state university entrance test), SNMPTN, and specific regular test, skill test in accordance with their chosen major. The result of interview toward the students of music concentration was that the invirontment was less constructive. Moreover, solfeggio learning experience was limited, these were the reasons why they were not able to expand their learning experience to a wider context. Learning solfeggio is a process of learning of how to drill sight-seeing, sight-ear, and voice simultaneously when reading a text of a song based on time and space. The tasks of solfeggio bearing to song reproduction : (a) sounding the melody of song based on pitch, (b) sounding the melody of songs based on tempo, (c) sounding the melody of songs based on birama, (d) sounding the melody of songs based on the rhythm. On the theme of rhythm sight-reading, students' learning achievement was low, it was 48.65. Nevertheless, though it was low score, but it was still the highest among those 3 themes. It means that all the 3 themes got low score comparing to standardized score. It was happening since the intake of the learners when they entranced the university, was also low, especially on solfeggio ability. On the theme of interval sight-reading, it was found that the score was lower than rhythm namely 44.42 or it was similar with D. Furthermore, viewing from the individual score, on rhythm the range of the score was 40 up to 55 whereas on interval the range of score was 35 up to 55. Henceforth, learner's score on rhythm theme was still higher than interval. On the theme of melody Sight-reading, it was found that on this theme the learners got the lowest score among those 3 themes, namely 42.12 or similar to D. The range of individual score was 35 up to 50. Thereof, it was concluded that melody was the most difficult theme to learn in learning solfeggio. Based on the result of match t-test that used to prove the effectiveness and the practicality of the developed model, it was found that t-obtained was much bigger than t-tab ($9.311 > 1.697$). it indicated that quantitatively H_a was accepted and automatically H_0 was rejected since t-obt exceeded t-tab, on the degrees of freedom (df) 31 (32-1, one tailed-test) with the significant level of 95% ($\alpha 0.05$). Finally, it was boldly stated that the developed model for learning solfeggio based on Direct Instruction was significantly effective. Automatically, if it had been stated significantly effective means that it was also practical to use based on the respondents responses.

b. Design

Direct instruction (DI) is a model of learning using teacher centered approach. There are three general factors in this model namely: goal of action, task analysis, instructional taxonomy. The essential of goal of action is the improvement the learners' work quality. The essential of task analysis is focusing on the levels of how much task the learners finished. The essential of instructional taxonomy is developing the three domains of the learners, they are: affective, cognitive, and psychomotor, see Santrock (2014:126). Objective learning should figure out learning experiences as the learners' learning achievement. Therefore, the concept of objective learning should be operative and measurable, for instance ; the learners are able to reproduce known songs based on place, (b) the learners are able to reproduce known songs based on time, (c) the learners are able to read the song "X" in krusis key, (d) the learners are able to read the song "X" in moll key.

Below is the cycle of developing song reproduction drill with solfeggio learning.

Table 1. cycle of development

Phase	Lecturer's Activity	Learners' Activity
Pre-activity	Sounding learning objectives to the learners.	Pay attention to the lecturer's teaching. Drilling song sightreading.

	Preparing the tasks. Eliciting learners; prior knowledge.	
Core-1	Motivating, teaching, elaborating, and confirming. Then, evaluating about songs reproduction.	Absorbing all about lecturing and paying attention. Having evaluation, and elaborating their knowledge.
Core- 2	Pre-activity Coaching about solfeggio material Confirming Evaluating the learners' song reproduction.	Absorbing all about lecturing and paying attention. Having evaluation, and elaborating their knowledge.
Penilaian	Evaluating the learners	Having evaluation

c. Development Phase

Developing songs reproduction drills is a part of innovative learning which aims to contribute learning solfeggio to ease the students simply to read the rhythm, interval and melody. Learning strategy and method was developed by : (a) practicing lyric of some known songs in accordance with rhythm and melody, (b) while practicing to sing the lyric, they also identifying the basic tap of note, (c) practicing how to reproduce note based on high-low, and long-short of note sounds.

The implementation of songs reproduction on solfeggio

1) Songs reproduction drills

Before learning solfeggio, the first activity was song reproduction. This activity aimed to bridge the learners' prior knowledge to the learning goals about solfeggio. The songs they practiced was Satu Nusa Satu Bangsa as the following;



The first step was lecturing the students on solfeggio material ; (1) the learners observing the song note, (2) the lecturer asking the students about the musical elements of the song, (3) the students answered all questions from the lecturer, (4) the students asking some questions around rhythm, interval, and melody. Learning activities on songs reproduction; (1) the students were practicing the melody of Satu nusa satu bangsa without seeing the note, (2) they practiced to reproduce partial melody per phrase, (3) practicing to reproduce song's melody based on interval, (4) practicing reading the lyric of song based on basical rhythm, (5) practicing reading the lyric of song based on musical scales. Based on the observation result, there were some problems with the students (1) while practicing the song, tempo of the song was changed, (2) while practicing, there was a change of tone when reproducing melody caused of less voice of students, (3) it was found that there was a mixed of basic tap and rhythm tap, (4) it was found that they were not able to combine 2 activities in one practicing. The third step was to overcome the students' problem while practicing reproduction. The lecturer was teaching them with some illustration, and the students practiced in pairs by this model of learning, the students realized their weaknesses

and they knew how to overcome, it was as learning experience they had during the learning process.

2). Solfeggio Learning

The first step of solfeggio learning was, lecturing the students and focusing them on rhythm, interval, and melody. then, the students observed the partiture of the rhythm, interval, and melody that they did not know before.: (1) identifying the rhythm, interval and melody of the song, (2) answering the questions from the lecturer bearing to solfeggio, (2) answering the questions from the lecturer deling with rhythm, interval, and melody, (3) the students asked some questions bearing to reading the segments of note that forming rhythm, interval, and meody. The second step was coaching the students of how to read the pattern of rhythm, interval, and melody, as the following:

The image displays musical notation for solfeggio learning. It is divided into two main sections. The upper section consists of two columns of rhythmic patterns, each enclosed in double quotation marks. The first column contains five rows of patterns, and the second column contains five rows. The lower section consists of two columns of melodic lines, each enclosed in double quotation marks. The first column contains five rows of lines, and the second column contains five rows. Each line of notation includes a treble clef, a key signature of one sharp (F#), and a series of notes and rests.

Based on the observation result on learning solfeggio there were some problems identified: (1) basic tap was switched from tapping note to untapping note, or lower tap became upper tap. (2) there was a mixing of basic tap and rhythm tap when reproducing melody, for instance, between basic taps there was a elody tap. (3) there was a difficulty of sounding long distance

of upper notes to lower notes for instance on kwint perfect (P5) or sect major (M6) (4) there was a difficulty to put lower note and upper note, for example lowering ' b ' to ' bes ' or uppering ' f ' became ' fis ' . The third step was to overcome the students' problem while practicing reproduction. The lecturer was teaching them with some illustration, and the students practiced in pairs by this model of learning, the students realized their weaknesses and they knew how to overcome, it was as learning experience they had during the learning process.

The last step was evaluation and reflexion. At the moment of evaluation, the students had a post test of how to perform known songs, how to read the melody, and finally, how to reproduce songs based on the material of learning they had gotten during the learning process about solfeggio. Here were the learning achievement on songs reproduction of solfeggio subject matter :

a. Rhythm sight-reading

On the theme of rhythm sight-reading, students' learning achievement was low, it was 48.65 or similar with D. Nevertheless, though it was low score, but it was still the highest among those 3 themes. It means that all the 3 themes got low score comparing to standardized score. It was happening since the intake of the learners when they entranced the university, was also low, especially on solfeggio ability. The last achievement of learning on rhythm was, 81, or similar with 56.76% increased.

b. Interval sight-reading

On the theme of interval sight-reading, it was found that the score was lower than rhythm namely 44.42 or it was similar with D. Furthermore, viewing from the individual score, on rhythm the range of the score was 40 up to 55 whereas on interval the range of score was 35 up to 55. Henceforth, learner's score on rhythm theme was still higher than interval. The last achievement was very significant at 82.5 or similar with 53.7%. it can be concluded that practicing songs reproduction drills was significantly effective in improving solfeggio learning throughout interval sight-reading.

c. Melody sight-reading

On the theme of melody Sight-reading, it was found that on this theme the learners got the lowest score among those 3 themes, namely 42.12 or similar to D. The range of individual score was 35 up to 50. Thereof, it was concluded that melody was the most difficult theme to learn in learning solfeggio. The last achievement was very significant at 76.1 or similar with 55.34%. it can be concluded that practicing songs reproduction drills was significantly effective in improving solfeggio learning, throughout melody sight-reading.

Based on the increased learning achievements above, starting from the pretest – treatment – posttest, it can be concluded that:

(a) students understanding upon solfeggio learning became improved since they had practiced songs reproduction drills on solfeggio subject, and their skills on rhythm, interval, and melody sight-reading were also improved.

(b) students understanding about rhythm was a bit fast improved compared to the other 2 skills namely interval and melody sight-reading, because it was easier to learn.

(c) and, the second easier to learn was interval, because when ther reproduce the songs, they only focus balancing it to the interval of songs whereas on melody sight-reading, they should focus on the other 2 sides, rhythm and interval altogether.

3. Evaluation

Developing songs reproduction drills on solfeggio subject, was a kind of innovative learning, since many of the lecturers usede to use the conventional model of teaching namely only practicing how to read the songs without doing students need analysis. It was different to the model discussed in this article, in solfeggio subject, the first step to do was analysis, then designing, developing, implementing, and evaluating.

The cyclus of learning solfeggio using songs reproduction drills was welldone based on analysis, design, development, implementation, and evaluation (ADDIE). All the fact and data showed that learning achievement on solfeggio subject matter was improved. Songs reproduction drills model was absorbed as a proper model in teaching solfeggio which

empower the students to magnify their understanding towards rhythm, interval, and melody of the songs. Their comprehension was not only on long or short note or on high or low note but even on those two unitedly in the melody. Learning achievement result showed that the students' ability in solfeggio was significantly improved that indicated by:

- 1) By songs reproduction drills the students became more comprehensive up on rhythm and melody.
- 2) By songs reproduction drills the students became more comprehensive upon the frequency of melody and its movement direction.
- 3) By songs reproduction drills the students became more comprehensive on pointing the melody in different movement.
- 4) By songs reproduction drills the students became more comprehensive on sounding the notes properly in different duration per unit or per phrase.
- 5) By songs reproduction drills the students became more comprehensive on sounding the notes with different distance (lower and upper).
- 6) By songs reproduction drills the students became more comprehensive about solfeggio either in knowledge or in procedure.
- 7) By songs reproduction drills the students became more comprehensive not only in memorizing the songs but also in reading the songs

IV. Conclusion

The success of implementing songs reproduction drills to improve learning achievement of solfeggio subject matter was derived from the goodness of development. The first phase was analysis and identification upon the students' prior knowledge on solfeggio and their characteristics. The second was designing learning process based on the students needs and characteristics. The third was developing the learning learning goals and material. The fourth was implementing songs reproduction drills and solfeggio based on the steps of the lesson plan. The last was evaluating the students' ability in practicing songs reproduction drills as the part of solfeggio at Art and Language Faculty of Padang State University, musical concentration. At this moment, the writer uttered many thanks to the chairman of the university of which the writer got a good opportunity and support of the fund, and for the students of Padang State University as they gave the time and agreement to be the subject of this research.

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