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SHIFTING PRIMARY SCHOOL TEACHERS' UNDERSTANDING OF SONGS TEACHING METHODS : AN ACTION RESEARCH STUDY IN INDONESIA

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ABSTRACT

In order to teach songs properly, primary school teachers need to be equipped with various strategies in songs teaching, and develop an understanding about correct methods of songs teaching. These primary school teachers teach songs through traditional oral methods with their own voices as the role model, though they did not have a perfect pitch. This research aims at rectifying primary school teachers' understanding of their own teaching methods in vocal teaching. This research exemplifies the results of a collaborative teamwork for critical units in order to change primary school teachers' understanding on teaching songs to their students. The result of these units show that by providing information about the impact of teaching songs to their prospective students who sang with poor singing skills and did not have a good pitch, it is possible to change teachers' understanding of teaching songs by using modern teaching methods. Moreover, guiding teachers to use various applications and media in teaching songs would provide new insight into them to choose supporting devices, and improve teaching literacy for vocal teaching.

Contribution/Originality: The paper's primary contribution is finding why primary school teachers possess a wrong understanding of songs teaching methods for their students, which results in poor teaching performance. Through an action research approach, this research is trying to pioneer that a technology and media assisted methodology can change their understanding and result in better teaching performance.

1. INTRODUCTION

Primary school teachers in one of districts in West Java, Indonesia, are accustomed to teach songs to students through traditional oral methods, though their singing skills lack adequate techniques, a strong pitch control and a stable singing tempo. Such an inadequacy in their teaching methodology has been there for a long time. Evidences prove that these methodological weaknesses have made a systemic impact on students' singing skills, techniques and pitch control. Their weaknesses are also reflected in the results of tests which show that an average of about 10% students in each class can sing well which is unfortunately not the result of teaching and learning in school, but because of their artistic discordancy, or pursuing art courses from outside institutions. It is expected that Indonesian students pursuing courses in singing and music under the guidance of school teachers should eventually acquire adequate singing skills. Their music or vocal education starts at primary school level (six years), then at

junior high school level (three years) and finishes at senior high school level (three years). Regrettably, despite 12 years of formal education the students fail to produce good vocal quality.

This issue results in negative impacts on the students' motivation to start learning music or vocal in-depth. Henry (2001) argues that the absence of vocal development in the primary level of education might prompt lack of students' engagement to music, since their access to more complex and motivational song literature is burdened. A study on vocal teaching conducted by Valdes and Persellin (2016) shows that all teachers are required to thoroughly listen to the pitch-matching of their students and implement varied teaching strategies to involve young singers as they acquire better vocal accuracy. Sundberg *et al.* (2017) study reveals that the success of vocal teaching is determined by the method used, such as Complete Vocal Technique (CVT). Based on previous studies and observation, it is assumed that the primary cause of above issue is that majority of teachers do not possess good singing skills and vocal talent. Moreover, they surprisingly resort to teach songs using traditional oral methods, which is further evidence that their singing skills are very much inadequate. Performing quality singing technique by modeling good vocal is considered as one of the best techniques that can be done by music educators in their classrooms. Vocal modeling happens when a teacher demonstrates a song in his or her own voice for students to hear (Valdes and Persellin, 2016). Hence, this research seeks to investigate this issue by framing following research questions: (1) Why do primary school teachers resort to teach songs with poor pitch control abilities?; (2) Do teachers know the impact of teaching songs with poor pitch control abilities?; (3) Do teachers recognize the supporting devices required for songs teaching? and (4) Is it possible to shift teachers' understanding and methods of songs teaching by conducting a series of action research?

This paper records the outcome of an action research conducted to envisage developing critical units to shift primary school teachers' understanding, and improve their abilities to teach songs to students. The remainder of this paper includes a literature review, research methodology, results, discussion to answer the proposed research questions, and a conclusion.

2. LITERATURE REVIEW

Singing is one of the basic music skills acquired by children at a very young age. It is a learned behavior, namely a psychomotor skill (Persellin *et al.*, 2002). Music skills developed at a child's development stage must include accuracy of vocal pitch, which increases with age and appropriate guidance, training and instructions (Goetze *et al.*, 1990). Several studies have proved that children resonate with higher accuracy under different situations, namely when the sound of the model has female voices rather than male voices (Sims *et al.*, 1982; Yarbrough *et al.*, 1991), when it has children voices rather than adult voices (Green, 1990), and voices without using a vibrato rather than voices using a vibrato (Yarbrough *et al.*, 1992). Another important study was conducted by Hermanson (1972) revealing that human models has a more positive effect on vocal accuracy than by instrumental models. Kinesthetic reinforcement of vocal models (Murphy and Persellin, 1993; Youngson and Persellin, 2001) and the use of learning modalities (Apfelstadt, 1984; Persellin, 1993; Persellin, 1994) also have evidence of a positive effect on the vocal accuracy of young people. The aforementioned theoretical explanations and empirical research findings infer that teachers as models in singing have a great influence on the formation and development of vocal accuracy of students, especially in primary schools. Hence, they are expected to have a good strategy and teaching methodology to teach songs to students.

Previous studies on vocal teachings are in great abundance: Flowers and Dunne-Sousa (1990) examined pitch-pattern, Liao and Campbell (2014) investigated song-leading, Persellin (2007) studied vocal accuracy, and Hornbach and Taggart (2005) inspected tonal aptitude. Some researchers have even focused on the problem of vocal teaching methods (Persellin and Bateman, 2009) and vocal teaching approaches (Klinger *et al.*, 1998; Gault, 2002; Liao and Campbell, 2016). In addition, there is a research that recommends song content to teach science (Governor *et al.*, 2013). Specifically speaking, studies that have inspired researchers to examine understanding and developing

primary school teachers skills to teach songs include Persellin *et al.* (2002) and Persellin (2006) whose findings show that teaching models can influence vocal accuracy. A recent study on vocal teaching was carried out by Crocco *et al.* (2019). They examined a method integrating motor learning principles to scrutinize the teaching behaviors of classical singing teachers in a more neutral and reliable manner. This study involved 12 participants consisting of four classical singing teachers and eight classical singing students aged above 18 years old in Australia. The result show that principles of motoric learning is a reliable working outline to identify teaching behavior in this field, because motoric learning can trigger a relationship between empirical studies, teaching quality, and learning outcomes.

In order to contribute to previous research, the focus of this research is to develop primary school teachers' skills in teaching songs by shifting their understanding of their own practices and methods of teaching songs through a series of critical actions. It is expected that this action research study will suggest new methods for the vocal development of primary school students, and to help weaker and inexperienced primary school teachers to design good teaching strategies for vocal teaching.

3. METHOD

3.1. Research Design

This research employed an action research design method. This design was used because it is a form of self-reflective inquiries that serves to enhance understanding on its practices (McTaggart, 1994; Kemmis, 2009). Teachers are seen here as the subject of research who need to shift their understanding on how to teach songs. Through action research, this research aimed to develop critical steps to improve teachers' understanding. As stated by Creswell (2015) the purpose of action research is to explore a practical problem with the intention of developing a solution to the problem. Action research requires the researcher to comprehend a methodical process to solve educational problems and make improvements (Tomal, 2010). The problem solving of this research consists of six critical steps developed from the results of planning, implementation, teaching reflection, and learning. This is supported by Alber (2010), Koshy (2005) and Somekh (2005) stating that action research basically uses the cycle of planning, implementing and reflection as this process leads to developing an action plan to solve problems.

3.2. Collaborative Teamwork

The most important aspect that cannot be separated from action research is collaborative teamwork. By transforming to collaborative action research, the researcher will be able to renew their commitment to perform considerate teaching and start a developing dynamic community of professionals (Sagor, 1992). In the other words, working collaboratively on action research shows the importance of group decision and commitment for improvement. Basically, the characteristic of collaborative action research relies on those who are responsible on planned changes to decide the critically informed action program that leads to improvement, and to evaluate the practiced strategies (Kemmis and McTaggart, 1988; Kemmis, 1991; McTaggart, 1994).

The establishment of a collaborative teamwork can be conducted in various ways. Heil (2005) explains that the easiest way to start collaboration is to publicize what is needed for the project, and await till an interest is generated. When the authors exposed the subjects of this research, two colleagues from two different departments volunteered to involve in this study, and offered to help preparing research material in the form of song lyrics and music recorded in the form of karaoke. After a collaborative team was established, this project was shared with stakeholders in broader educational environment. A chairman of an educational foundation got interested in this project, and offered to help in coordinating with the teachers involved in the project.

Subsequently, various preparations were made by the team including identifying a sample of teachers needed to participate in a series of designed activities such as examining their methods of songs teaching, analyzing the impact of songs teaching, changing their methods of songs teaching, practicing how to teach songs, and training

students to perform in a show based on the results of new songs teaching methods. The performance was designed in the form of a festival, and local mass media were also invited, with a view to provide an exposure to this event to the wider community. Television and local newspapers were invited to collaborate so that teachers could participate in this event seriously, and strive to showcase the results and impact of their teaching on students and gain recognition.

3.3. Research Site and Participants

The West Java Province in Indonesia consists of 27 districts. This research was carried out in Sumedang District, which is divided into 26 sub-districts that are categorized into urban area, rural-urban fringe area, and rural area. The participants of this research represented 18 sub-districts, while participants from the other eight sub-districts were unable to participate due to schedule conflicts. The primary school teachers were sampled from these three categories but all research activities were conducted in the urban area due to it being the center of government, and having modern public facilities required for the conduct of this research project. At the stages of socialization and preliminary survey, 61 teachers showed willingness to fill the survey, and to participate in this research. However, in the end, only 18 teachers participated in this research until completion. This was due to reasons such as schedule clash and educational accreditation activities in schools. All 18 teachers who participated were women aged between 30 and 50 years and collaborated with this research until its completion in six months.

4. RESULTS

4.1. Data Analysis of Pre-Action

Teachers sampled for the study filled out a pre-action survey, in which the data were collected to identify the actual status of vocal teaching in primary schools to ascertain constructs like teachers' competence in singing or their motivation to teach songs. The current status of teachers in vocal teaching as evident from survey results is presented in Table 1.

Table-1. The Condition of Vocal Teaching in Primary Schools.

Vocal Teaching in Primary Schools	Yes	No
Are the vocals taught to the students?	18	
Are there competent teachers who teach the vocals well?		18
Is the vocal teaching removed and replaced with other art lessons?	3	15
Are there teachers who teach the vocals, although they do not have singing skills?	17	1
Do teachers teach the vocals directly using the traditional oral method?	18	

Source: Data obtained from survey administered to teachers.

The results of the survey show that all teachers ($n = 18$, 100%) taught the vocals and songs to the students. A strong majority of teachers admitted that they taught despite the fact that they did not possess adequate singing skills. This was evidenced in the teachers' responses stating that there were no competent teachers to teach the vocals ($n = 18$, 100%), that there were teachers who taught the vocals with poor singing skills ($n = 17$, 94.44%). This suggests that poor teaching skills did not make teachers stop teaching the vocals, in fact, a majority of teachers responded that vocal teaching was not removed and replaced with other art lessons ($n = 15$, 83.33%), and only three teachers (16.67%) said that they taught other art lessons but not the vocals. However, it was unanimously agreed that vocal teaching should be carried out despite all inadequacies because it was their responsibility to complete teaching hours requirement, which includes vocal teaching hours. All teachers (100%) also illustrated that vocal teaching was conducted by using an audio-lingual method. It suggests that teachers' voices were considered as models for students in the process of vocal teaching and acquiring vocal skills. It was observed that there was an inappropriate vocal teaching pattern when human voices were used as models, since most of these teachers did not

have adequate accuracy of vocal pitch. Unfortunately, these teachers also failed to realize the impact that their inaccuracy of vocal pitch made on students as a result of their teaching methods.

4.2. Critical Action Units of Skills in Teaching Songs

The findings of the pre-action survey and its analysis had proved that primary school teachers were not competent in vocal teaching but still they used their voices as teaching models for students. In addition, their understanding about the impact of their own teaching methods on their students' vocal pitch ability was also very low. Having defined the issue, six critical steps were devised as responses to this problem along with their implementation. The followings are those six critical steps that aimed to develop teachers' ability to teach the vocals and shift their understanding on how to teach songs well.

First Step: Developing Motivation

The results of the pre-action survey showed that primary school teachers resorted to teach songs, even though they were not competent in singing. They did not realize that their songs teaching methods was strongly and adversely making an impact on students' singing skills, especially failing to hone and develop their accuracy of vocal pitch. It was therefore necessary to motivate them to change their perceptions and realize the importance of teaching songs with good voices as models. If students were taught through good voice models they would also develop good voices. In this step, teachers were exposed to the performance of children singing in good voices, in order to make them understand that children had vocal potential and that must be developed in good ways. Various techniques of vocal teaching were also introduced during this step in order to identify methods appropriate to teachers' abilities. However, the real challenge before these teachers sampled for the study was to teach songs based on the existing curriculum, though they did not have singing skills. To resolve this issue, these primary school teachers were given an overview of various alternatives or strategies, but vocal teaching still remained of poor vocal quality.

Second Step: Rectifying Methods of Teaching Songs

In the second step of this action research, a further examination was made on the use of traditional oral songs teaching method. The teachers participating in this research said that they had attended training programs on vocal teaching and their instructors had suggested teaching songs directly until the students become perfect and were capable to sing on their own. In spite of that, the findings suggest that their vocal pitch was very poor. Unfortunately, their training too ignored the competence of their own teachers or showed disregard to the fact that a majority of them had a problem with vocal pitch. This understanding was although believed by teachers, but they still implemented the same old oral and audio-lingual methods in vocal teaching without using any supporting media. Therefore, their understanding was also needed to be rectified and their teaching method to be changed by utilizing audio or audio-visual recording. Moreover, it was also realized that the voices modeled in songs teaching were not from teachers' voices, but from songs that have been recorded and sung by experts.

A majority of teachers expressed problems while teaching songs such as their inability to guide students in the form of fragmentation as most songs were fragmented, or a difficulty faced in teaching the stability of tempo while the students sang. When they were asked whether they used tools or any supporting media to help in songs teaching such as short melodic songs and train the stability of the song's tempo. They responded that they did not have the facilities at their schools, such as a keyboard, therefore they taught songs without the help of any tools. They were also asked whether they had ever used a digital-based application to help teaching the vocals. They stated that they did not know the application used for vocal teaching. The teachers' responses thus provided the input about their inadequate knowledge about technology literacy, especially the one used for learning process. In

fact, these respondents were found to be Android-based smartphone and laptop users. This finding suggests introducing various kinds of digital applications to support vocal teaching.

Third Step: Introducing Supporting Applications for Teaching Songs

As revealed from the findings, several primary schools did not have adequate facilities to teach songs. Therefore, the primary school teachers had to depend upon applications available for free on the Internet or Google Play Store. The most needed applications for them were the tools to guide vocal pitch and tempo stability. To cite an example, for the purposes of guiding vocal pitch, there were many piano application options that could be installed, but for uniformity in learning the application, teachers were instructed to install an application called "Perfect Piano" from Google Play Store. Similarly, for the purposes of practicing songs' tempo, they were instructed to install an application called "Metronome Beats". During this third step, the teachers were very enthusiastic to learn about these applications, and it was quite obvious that they had just realized the availability of these applications in the Google Play Store. These applications were user-friendly, so they could master and understand their use in a short period.

Fourth Step: Simulating Teaching Songs

In the fourth step, in order to ensure that teachers were ready to teach songs with new approaches and application, they were asked to do teaching simulation. The researchers carried out a teaching simulation as an example witnessed by the sampled teachers. Based on this teaching simulation, changes in their own teaching methods were analyzed, in order to determine how they switched from conventional teaching methods to the implementation of teaching methods involving supporting tools such as audio CDs and various other applications. Through the teaching simulation methods, they began to show higher self-confidence, and also demonstrated their ability to use technology. The voice models for vocal teaching were also taken during this step from songs that had been recorded on an audio CD, and were converted into MP3 format by some teachers, and played through a laptop using loudspeakers. The song files were also stored in their smartphones to facilitate the teaching process.

Fifth Step: Implementing the Applications to Actual Learning

In this step, all teachers implemented the results of vocal teaching training using audio CDs and music applications in their respective schools. This was done by projecting lyrics and song notation on a screen using projector. They were also required to identify the teaching results and report the analysis of weaknesses that would be used as a basis for preparing improvement material. One of the teachers reported that while teaching religious songs and audio CDs, several students cried. When she was asked, "Why did they cry?" She answered because the students had really enjoyed the melody and the lyrics of those songs. It indicated that the new methods of teaching songs had provided new atmosphere to the students, At least, the students listened to a good sound model, and they ended up with a deep appreciation. In addition, the level of teachers' capability in using applications during the learning process was also surveyed. A majority of teachers responded that they now used audio CDs, as well as practiced tempo stability. Specifically, the Metronome Beats application was used only once when the song was sung without an audio CD. Likewise the Perfect Piano applicationwas only used to teach vocal fragmentation or melodic phrases in songs. In short, teachers did not find any difficulties in the use of the new applications.

Sixth Step: Participating in Festival

In the final step, there was a need to determine the success of teachers in song teaching by conducting an event of students' singing performance. The event was conducted for primary school students, especially for showcasing the students who had been taught by the teachers who participated in this research project. Thus the actual number of event participants was 18 students. One student was appointed by the teachers as the representative from each

school. All teachers had prepared their students as their representatives, to showcase their singing that was the result of their guiding and using the new teaching methods. When approaching any singing competition, a school generally involved external vocal coaches. However, for this event, teachers had the encouragement and confidence of having coached their students with their own teaching skills. The results of the event showed a discernible improvement in the quality of songs of a majority of students. . However, a few weaknesses were identified such as a few students found it difficult to sing with the right pitch at the start of a song. However, their teachers commented that this problem did not occur when the students were practicing at their school, and this might be caused due to students' musical performance anxiety. The judges of the event also commented on this problem. According to one of the judges, this problem occurred because the introductory music was played on the minor chord, while the start of the song was on the major chord. For professional singers, this case may not be a big problem, but for students, the chord shift was still a problem because they were not accustomed to singing on various chords. The jury's comment could be a reflection to develop teaching methods for primary school teachers in the teaching of songs.

5. DISCUSSION AND CONCLUSION

At the end of the project, a survey was conducted to analyze and compare the results with pre-action research data. While comparing teachers' statements about the songs teaching method, all teachers (n = 18, 100%) agreed that they must teach songs by using the assistance of audio CDs and music applications. They had understood and realized that the traditional oral method (audio-lingual method) in teaching songs was not an appropriate application, because it had a negative impact on the process of honing the students' vocal pitch. In other words, traditional oral method was more appropriate for professional vocal teachers. The condition of those who lacked singing skills was not appropriate if they made their voices as the voice model for students. This was in line with the previous research proving that humans had a more positive effect on vocal accuracy (Hermanson, 1972).

The teachers' understanding on various Android-based applications to support vocal teachings was also found increased. They recognized that music applications were very useful for teaching vocals, such as Perfect Piano applications to guide the songs' pitch and melody, and Metronome Beat application to practice tempo stability while singing. In other words, teachers' technology literacy increased significantly. The survey results also showed that all teachers had expressed a positive opinion about the urgency to use technology in teaching songs or music. The teachers' understanding had also showed positive changes in using technology as an important part of music education. Various past research results have also provided similar description of technology showing a positive influence on the ability and confidence of the teachers to teach music (Seddon and Biasutti, 2008; Greher, 2011). However, the quality of learning still relied on strategies and expertise of teachers in song teaching. As informed by the results of previous studies, teachers are always the key to the quality of teaching in the field of music, and music technology was only a tool in the process (Webster, 1998; Webster, 2002).

In the current research, teachers were given open ended questions, such as "Has your thinking paradigm about teaching music shifted after taking this training?" All teachers stated that their thinking paradigm had changed. A teacher gave a statement that her knowledge about how to teach music had increased. Other teachers stated that difficulties in teaching music, especially vocal teaching, had been overcome. In addition, there was also a teacher who stated that their confidence in teaching music had increased, they felt proud, and motivated when they saw their students singing in public. These statements are the evidence of the change in their understanding, as well as their confidence in their own ability to teach music. Such a confidence building was very important since the teachers were able to prove their identity as music instructors (Kos, 2018). Likewise, results of this research also confirm that a teacher's understanding on methods or models of teaching music should also be continually developed through professional development programs (Johnson *et al.*, 2018; Bautista and Wong, 2019).

In conclusion, six critical steps conducted in this research shifted teachers' understanding and method of teaching songs to primary school students. A series of processes in applying critical steps provided knowledge and

answers to the questions addressed at the beginning. The first question was, "Why do primary school teachers resort to teach songs with poor pitch control abilities? The results of the survey showed that teachers who had participated earlier in training programs acquired the understanding that song teaching must not be carried out in a state of inadequate vocal abilities or without the help of some media. Moreover, they also had responsibility of completing teaching hours requirements, and hence vocal teaching continued to be included under these conditions. The second question, "Do teachers know the impact of teaching songs with poor pitch control abilities?" The results of the survey showed that they did not know the impact of teaching vocals with their voices as a model for the development of students' vocal pitch. The problem of failing to hone vocal pitch was also ignored by teachers because of their lack of insight into the urgency of this problem. The third question, "Do teachers recognize supporting devices of teaching songs?" The result of the survey showed that they did not recognize applications commonly used to help teaching vocals. They did not even realize that applications to support vocal teaching were available on the Google Play Store. This problem was caused by teachers who lacked technology literacy, and therefore they could not recognize various free-applications that were available to be used on their own smartphones. Finally, the question "Is it possible to shift teachers' understanding and methods of songs teaching by conducting a series of action research?" was also addresses in his research. The Action research carried out in 6 steps proved the feasibility of this type of research in tackling the issues faced by teachers. The mentoring program also offered new insight into the use of various media supporting vocal teaching that was actually around them.

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