

## **Determining Objects of Observation for the Accuracy of the Singing Assessment Instrument**

**Udi Utomo<sup>1(\*)</sup>, Suharto<sup>2</sup>**

<sup>1,2</sup>Drama, Dance and Music Arts Study Program, Faculty of Language and Arts, Universitas Negeri Semarang, Sekaran Campus, Gunungpati, Semarang, Indonesia,,

(\*)✉ (e-mail) [udiutomo@mail.unnes.ac.id](mailto:udiutomo@mail.unnes.ac.id)

### **Abstract**

Learning to sing in junior high schools based on the 2013 curriculum can be implemented by setting at least three important aspects as benchmarks for their assessment. Based on this matter, this study aims to determine the object of observation and scoring techniques in assessing aspects of the accuracy of the tone (pitch and duration), phrasing, and articulation. The study was conducted using a combination of qualitative and quantitative methods (mix methods). The use of these two methods is expected to be complementary. Results of the study show that: (1) the object of observation in assessing aspects of the accuracy of the tone (pitch and duration) is the students' skills in singing all parts of the melody of the song; (2) the object of observation in assessing the phrasing aspect is the students' skills in singing songs in accordance with the fragments of existing song sentences; (3) the object of observation in assessing the articulation aspect is the students' skills in singing the lyric in accordance with the existing pronunciation (4) scoring techniques for three aspects of singing assessment are performed using a range of scores based on the number of song bars, parts of song sentence, and the number of syllables specified in all parts of the lyric; and (5) the results of the trial conducted prove that the singing assessment instrument developed is accurate and meets the established criteria.

**Keywords:** Singing assessment instrument; Accuracy of the Singing; Objects of Observation

### **Introduction**

The role of assessment as one component of learning has a very important position. As a series of activities to obtain, analyze, and interpret learning outcomes data, the implementation must be carried out systematically and continuously. The goal is for the results to be meaningful for decision making in improving learning and setting learning outcomes (Hana, 2007) dan (Kusaeri, 2013).

The assessment of music art learning in junior high schools (JHS) based on the 2013 curriculum covers the entire realm of competence both attitudes (affective), knowledge (cognitive), and skills (psychomotor). These three domains as references in their achievements are summarized in the process of learning appreciation, expression, and creative music (Utomo & Suharto, 2018), dan (Hana, 2007), (Jamalus, 1988),(Dini & Utomo, 2018), and (Regelski, 1981)..

The implementation of the 2013 curriculum in junior high schools (JHS) which continues to date has implications for changes in the teaching and learning process along with the assessment system. Therefore, the diversity of available facilities and resources in schools has an impact on readiness in implementation. Until now, there are still many music arts teachers who have difficulty in implementing assessment practices as expected. Relevant to the findings of Russell and Austin (J. A. Russell & Austin, 2010) which stated that, when curriculum changes were made, it was not necessarily all teachers to get the opportunity for technical guidance related to the applicable curriculum standards. Thus, the practice of learning carried out is strongly influenced by the level of

teaching and specialization of teaching that has been going on before. For example, the lack of diversity in the use of strategies and methods of learning and teacher domination in the learning process in some cases still occurs. As a result, it is less prepared for students to develop the critical, appreciative, creative, imaginative and innovative abilities needed to take education at the next level (Yoseph, 2009), (Utomo & Sinaga, 2011), (Utomo & Sinaga, 2011), and (Yoseph, 2009).

In the context of learning music art in junior high schools (JHS), the results of Utomo's study (2013) revealed a difference in the priorities of teachers in setting goals and learning outcomes for their students. Teachers who set students' skills in playing musical instruments or singing as a top priority are 20%. The teachers who set the knowledge of musical art and its relation to various aspects of culture as a top priority are 30%. Nevertheless, most teachers (50%) prioritize that, the purpose and results of learning music art are mastery of concepts and musical symbols obtained through various musical experiences (Jamalus, 1988), (Regelski, 1981), and (Utomo & Ardiyarta, 2013).

The teachers' ability to develop instruments for assessing art music learning based on 2013 curriculum standards is very necessary. This is based on the fact that the practice of assessing learning in schools is not optimal. Husin's research (Husin M, 2010) revealed that the ability of teachers to carry out classroom-based assessments (CBA) in Jakarta State High Schools which included written, oral, deeds, observations / observations of attitudes, portfolios, and interviews were stated to be poor. The score for planning CBA, the average is only 54.46% of the maximum score, the ability to do CBA is 53.82%, and the ability to manage CBA results is only 43.78%.

In a broader context, the results of research by Jien Tirta Raharja (Raharja & Retnowati, 2013) show that there is still a gap between the implementation of the components of planning, implementing, evaluating, and supervising learning with the existing minimum standards. In the implementation of the assessment, especially in terms of determining the techniques and instruments for evaluating the learning process of High School Cultural Arts in Lombok Regency only in the fairly good category. Research data revealed that, of the eight schools that were used as research samples there were still three schools that had not yet reached these criteria.

Based on these findings indicate that, the problem of assessing learning for teachers is still a fundamental problem. There have been several studies that have been conducted to develop various assessment models that are expected to be in accordance with the characteristics of subjects in the school. As an example of Siti Mur'iah research (Muriah, 2015), in religious subjects developed a good character learning assessment model. Tri Hartiti Retnowati (Retnowati, 2010), in the subject of arts and culture (fine arts) developed a non-test assessment instrument for imaginative images of third grade students. In the context of Physical Education and Sports subjects, Guntur et al. (Guntur, Sukardiyanto, & Mardapi, 2014) developed a system for assessing the learning outcomes of volleyball in high school. The results of the three studies show that, assessment instruments and procedures developed based on the characteristics and objectives of the subjects in the school are very effective and have a positive impact on the implementation of learning.

Based on these problems, this study aims to examine the development of singing learning assessment instruments in the seventh grade of junior high school (JHS) based on the 2013 curriculum. The study focused on: (1) determining object observations on the assessment of tone accuracy (pitch and duration), phrasing, and articulation; (2) determination of scoring techniques; and (3) accuracy of the assessment results.

## Method

This research was conducted using a combination of qualitative and quantitative methods (mix methods). The use of these two methods is needed so that they can complement each other both during the process of preparing assessment instruments and when conducting trials. The study was conducted by involving cultural arts teachers in the first (JHS) school in Semarang City.

The subjects of the testing instrument for singing learning in this study were the seventh grade students of Semarang State Junior High School 2, students of Semarang State Junior High School 22, Krista Mitra Semarang Junior High School, and YSKI Christian Junior High School Semarang. The art music learning class used in the implementation of the trials at each school was determined purposively by choosing one of the classes in the school. The trial process is conducted for one semester (odd semester 2018/2019), starting from March to September 2018.

The process of data collection is carried out by observation, focus group discussion (FGD), interviews, task items, observation and measurement guidelines, and documents. Data analysis is done by integrating qualitative and quantitative methods (Creswell, 2003), and (Tashakkori & Teddlie, n.d.). Qualitative techniques are carried out when analyzing and describing data obtained at the time of observation, focus group discussion (FGD), and interviews. While the quantitative analysis technique was carried out by the researcher when analyzing the data from the trial results of the singing learning assessment instrument developed. The quantitative analysis used was the Intraclass Correlation Coefficient (ICC) test which was carried out with the help of the SPSS program.

## Results and Discussion

The object of observation in the assessment process is the target of the observation to be measured and assessed. In the context of singing learning the determination is made based on the assessment aspects specified. In this study, there were three aspects of assessment established in the learning of music art in the junior high school (JHS), namely: (1) aspects of tone accuracy; (2) accuracy aspects of phrasing; and (3) aspects of the accuracy of articulation. These three aspects relate to what is disclosed by Brian E. Russell (B. E. Russell, 2015), Jhosua and Austin (J. A. Russell & Austin, 2010), and Zdzinski & Barnes (Zdzinski & Barnes, 2002) who examine performance in playing musical instruments, including the ability to be measured through the dimensions of technique, musical expression, tone, intonation, rhythmic accuracy, articulation, tempo, dynamics, tone of character, interpretation, and vibrato. Whereas Butke (2014) in the context of learning music art in public schools states that authentic and artistic music experiences for assessment purposes involve elements of music (melody, rhythm, harmony), creativity, and expression.

### 1. Objects of Observation in Assessing Aspects of Tone Accuracy (Pitch and Duration) in Singing Learning in Junior High School (JHS)

The object of observing aspects of the accuracy of the tone (pitch and duration) in singing learning is the students' skills in singing all parts of the song's melody. Therefore, the unit of measurement can be done using the number of *bar* of the song sung. In the song *Suwe Ora Jamu* which consists of eight sections, the fragments of the songs that are available can be seen in the following notation.



80 ♩ = 100

Bar

Su- we o ra ja mu ja mu go dong te

lo su we ra ka te mu te mu pi san ga we ge lo

Notation 1. The *Bar* as the Object of Observation in the Assessment of Tone Accuracy

### 2. Objects of Observation in Assessing Phrasing Aspects of Singing Learning in Junior High School (JHS)

The object of observation in assessing the accuracy aspect of phrasing in singing learning is the students' skills in singing all parts in accordance with the fragments of the existing song sentences.

Therefore, the unit of measurement can be done by using the number of pieces sung. In the song *Suwe Ora Jamu* which consists of eight sections of birama, fragments of existing song sentences can be seen in the following notation.

80 ♩ = 100

Su- we o ra ja mu ja mu go dong te

lo su we ra ke te mu te mu pi san ga we ge lo

The image shows two staves of music in 4/4 time. The first staff contains the lyrics 'Su- we o ra ja mu ja mu go dong te'. The second staff contains 'lo su we ra ke te mu te mu pi san ga we ge lo'. Four white arrows point downwards to the end of the first, third, fifth, and seventh phrases: 'te', 'mu', 'mu', and 'lo'.

Notation 2. Limits of Phrase / Song Sentences as Objects of Inner Observation  
Assessment of Phrasering Accuracy

### 3. Observer Objects in Assessing the Articulation Aspect of Singing Learning in Junior High School (JHS)

The object of observation in assessing the exact aspect of articulation in singing learning is the skill of students in singing all the song poems according to the existing pronunciation. Therefore, the unit of measurement can be done using the number of syllables that are considered important in the assessment process. In the song *Suwe Ora Jamu*, which consists of eight sections, the object of observation can be a syllable at the end of each sentence. These syllables can be seen in the lyrics of the following song.

80 ♩ = 100

Su- we o ra ja mu ja mu go dong te

lo su we ra ke te mu te mu pi san ga we ge lo

The image shows the same musical notation as Notation 2. In this version, the syllables 'mu' at the end of the first phrase, 'mu' at the end of the third phrase, and 'lo' at the end of the seventh phrase are circled in black.

Notation 3. Example of syllables at the end of each piece of phrase / song sentence

### 4. Technique of Scoring Assessment Aspects Singing in Art Learning Music in Junior High School (JHS).

Scoring in the assessment process is a process of determining numbers from the measurement results of an object, characteristics, characteristics, attributes or behavior. Therefore, the preparation of assessment instruments requires rules (such as implementation guidelines and scoring criteria) in determining numbers that describe the performance aspects of the assessment (Reynold, Livingston, & Willson, 2010), and (Kusaeri, 2013).

Based on the determination of the existing observation object, the scoring process of the three aspects of singing evaluation is done by setting categorical range of numbers according to the characteristics of the assessment aspects of the song sung. For example in the song *Suwe Ora Jamu*, scoring techniques on aspects of tone accuracy (pitch and duration) can be done using a range of numbers from 0 to 8 according to the number of segments of the song. The process of measuring students' skills in singing all parts of a song's melody can be done with rubric as follows.

Table 1. Assessment Rubric Aspects of Tone Accuracy (Pitch and Duration)

Score	Criteria
8	If 8 (all) songs are sung with intonation and the right tone value.
7	If 7 songs are sung with intonation and the right tone value.
6	If 6 songs are sung with intonation and the right tone value.
5	If 5 songs are sung with intonation and the right tone value.
4	If 4 songs are sung with intonation and the right tone value.
3	If 3 songs are sung with intonation and the right tone value.
2	If 2 songs are sung with intonation and the right tone value.
1	If 1 songs are sung with intonation and the right tone value.
0	If 0 (none) songs are sung with intonation and the right tone value.

In contrast to the assessment of the tone accuracy aspect, the phrasing aspect scoring technique on the song *Suwe Ora Jamu*, which is eight hours long, can be done using a range of numbers from 0 to 4. The process of measuring students' skills in singing all parts of the song sentence can be done using rubric as follows.

Table 2. Assessment Aspect Rubric for Phrasing Accuracy

Score	Criteria
4	If 4 (all) song phrase pieces (2 phrases), are sung with proper phrasing beheading.
3	If 3 song phrase pieces (2 phrases), are sung with proper phrasing beheading.
2	If 2 song phrase pieces (2 phrases), are sung with proper phrasing beheading.
1	If 1 song phrase pieces (2 phrases), are sung with proper phrasing beheading.
0	If 0 (none) song phrase pieces (2 phrases), are sung with proper phrasing beheading.

Scoring techniques in the assessment of articulation aspects that emphasize the students' skills in singing song lyrics according to the existing pronunciation, can be done using a range of numbers from 0 to 4. The process of measuring students' skills in singing all parts of song lyrics can be done with rubric as follows.

Table 3. Assessment of Aspects of Articulation Accuracy

Score	Criteria
4	If 4 (all) song phrase pieces (2 phrases), the verse is sung with correct articulation.
3	If 3 song phrase pieces (2 phrases), the verse is sung with correct articulation.
2	If 2 song phrase pieces (2 phrases), the verse is sung with correct articulation.
1	If 1 song phrase pieces (2 phrases), the verse is sung with correct articulation.
0	If 0 (none) song phrase pieces (2 phrases), the verse is sung with correct articulation.

When compared with the other two aspects, the range of scoring on the aspects of the accuracy of articulation can be done with more variety depending on needs. Among them can be done by referring to the number of syllables at the end of a song sentence or more complex by using the number of syllables in all parts of the song lyrics.

## 5. Accuracy of Results of Measurement of Singing Skills in Music Art Learning in Junior High School (JHS)

Determination of observation objects and scoring techniques in assessing music skills is an important decision in the preparation of rubric assessment. Because both of these things greatly influence the accuracy and objectivity of the rater and the accuracy of the assessment results that represent the objectives (Zdzinski & Barnes, 2002). A very detailed observation of the singing skills of students is of course very good for an assessment result. However, the number of performance indicators that must be observed in detail, with limited time in making observations, makes the rater's foresight very difficult to maintain. Based on the results of the trial shows that, the singing assessment instrument developed has met the expected criteria. This can be achieved because the determination of object observations, scoring techniques, and rubric assessments can be used as a guide for assessors clearly (Guntur et al., 2014), (Carpente & Gattino, 2018), and (DeLuca & Bolden, 2014)). The results of the analysis of Intraclass Correlation Coefficient singing assessment instruments developed by involving 3 assessors of 0.989. This has exceeded the minimum criteria set at 0.70.

In assessing the performance of music as revealed by Martin J. Bergee (Bergee, 2007), the source of errors in the assessment process is the assessor himself. Therefore, he suggested that in the assessment of music performance the number of assessors should not be only one person. In fact, he was able to prove by involving 5 assessors, assessment instruments developed and analyzed using generalization coefficients able to reach a benchmark of 0.80.

## Conclusions

In evaluating singing skills in art music learning in junior high schools (JHS) based on the 2013 curriculum, there are three important aspects that need to be achieved, namely: (1) aspects of tone accuracy (pitch and duration); (2) accuracy aspects of phrasing; and (3) aspects of the accuracy of articulation. However, if the three aspects have been reached the assessment can be further developed in other relevant aspects such as, technique, dynamics, interpretation, vibrato, and appearance / disposition.

All aspects of assessment in singing individually or in groups can be measured and assessed accurately when the assignment items, assessment of object observations, assessment techniques, and preparation of rubric assessments are carried out appropriately. Therefore, the findings in this study are one alternative that can be used by teachers in learning music art in schools. In addition to being accurate, the determination of object observations and scoring techniques that are available are able to provide information in the interest of improving the learning process and results.

## Acknowledgments

This article is the result of a 2018 study funded by the Directorate of Research and Community Service. Therefore, we express our gratitude to: (1) Head of the Directorate of Research and Community Service; (2) Chairperson of LP2M in Semarang State University; (3) Principals and Teachers of Junior High Schools in Semarang City; (4) lecturers, administrative staff, and laboratories of the Department of Dramatic Arts Education, and Music, Faculty of Language and Art, Semarang State University. Without the support of various parties, this research and article cannot be resolved properly.

## References

- Bergee, M. . (2007). Performer, Rater, Occasion, and Sequence as Sources of Variability in Music Performance Assessment. In *Research Article* (First Publ). <https://doi.org/https://doi.org/10.1177/0022429408317515>.
- Carpente, J. A., & Gattino. (2018). Inter-rater Reliability on Individual Music-Centered Assessment Profil for Neurodevelopmental Disorder (IMCAP-ND0 for Autism Spectrum Disorder. *Nordic*

- Journal of Music Teraphy*, 297–311. <https://doi.org/http://doi.org/10.1080/08098131.2018.1456480>
- Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Second Edition)*. London: Sage Publications Ltd.
- DeLuca, C., & Bolden, B. (2014). Music Performance Assessment: Exploring Three Approaches for Quality Rubric Construction. *Music Educators Journals*, 101(1), 70–76. <https://doi.org/https://doi.org/10.1177/0027432114540336>
- Dini, T. A., & Utomo, U. (2018). The Reflection of Cultural Identity of Gayo Society , Central Aceh Regency in Tawar Sedenge Song, 7(2), 189–198.
- Guntur, Sukardiyanto, & Mardapi, D. (2014). Pengembangan Asesmen Hasil Belajar Penjaskesorkes Siswa SMA pada Permainan Bola Voli. *Jurnal Penelitian Dan Evaluasi Pendidikan*, (18), 1.
- Hana, W. (2007). The New Bloom’s Taxonomy: Implications for Music Education. *Arts Education Policy Review*, 108(4).
- Husin M. (2010). Kemampuan Guru dalam Melaksanakan Penilaian Berbasis Kelas. In *Seminar Nasional Himpunan Evaluasi dan Pendidikan Indonesia* (pp. 77–86). Jakarta.
- Jamalus. (1988). *Pembelajaran Musik Melalui Pengalaman Musik*. Jakarta: Dirjendikti Depdikbud.
- Kusaeri. (2013). *Penilaian Proses dan Hasil Belajar Kurikulum 2013*. Yogyakarta: Ar-Ruzz Media.
- Muriah, S. (2015). Asesmen Akhlak Mulia: Suatu Model Alternatif Penilaian Pembelajaran Agama. *Jurnal Studi Keislaman*, 12(2), 225–248. <https://doi.org/10.20414/ujis.v12i2.380>
- Raharja, J. T., & Retnowati, T. H. (2013). Evaluasi Pelaksanaan Pembelajaran Seni Budaya SMA di Kabupaten Lombok Timur, NTB. *Jurnal Pene*, 17(2), 287–303.
- Regelski, T. A. (1981). *Teaching General Music*. London: Collier Macmillan Publishers.
- Retnowati, T. H. (2010). Penilaian gambar imajinatif Siswa Kelas Tiga SD dengan Instrumen Non Tes. In *Seminar Nasional Himpunan Evaluasi dan Pendidikan Indonesia* (pp. 1–18). Jakarta.
- Reynold, C. R., Livingston, R. B., & Willson, V. (2010). *Measurement and Assessment in Education (2nd Edition)* (Pearson Ed). USA.
- Russell, B. E. (2015). An Empirical Study of A Solo Performance Assessment Model. *International Journal of Music Education*, 1(5). <https://doi.org/https://doi.org/10.1177/0255761415581282>
- Russell, J. A., & Austin, J. R. (2010). Assessment Practices of Secondary Music Teachers. *Journal of Reseaarc in Music Education*, 58(1), 2010.
- Tashskori, A., & Teddlie, C. (n.d.). *Mixed Methodology: Mengkombinasikan Pendekatan Kualitatif dan Kuantitatif*. Yogyakarta: Pustaka Pelajar.
- Utomo, U., & Ardiyarta, T. (2013). Pengembangan Instrumen Penilaian Unjuk Kerja (Performance Assessment) Kompetensi Ekspresi dan Kreasi Musik di Sekolah. *HARMONIA - Jurnal Pengetahuan Dan Pemikiran Seni*, 13(1), 1–9.
- Utomo, U., & Sinaga, S. S. (2011). Pengembangan Materi Pembelajaran Seni Musik Berbasis Seni Budaya Berkonteks Kreatif, Kecakapan Hidup, dan Menyenangkan Bagi Siswa SD/MI. *Harmonia: Journal of Arts Research and Education*, 9(2). <https://doi.org/10.15294/harmonia.v9i2.638>
- Utomo, U., & Suharto. (2018). *Pengembangan Sistem Penilaian Otentik Pembelajaran Seni Musik di Sekolah Menengah Pertama (SMP) Berdasarkan Kurikulum 2013*. Universitas Negeri Semarang, Semarang.
- Yoseph, W. (2009). Implementasi Kurikulum Tingkat Satuan Pendidikan (KTSP): Dalam Pembelajaran Seni Musik di SMA City School Semarang, 25, 3–6.
- Zdzinski, S. F., & Barnes, G. V. (2002). Development and Validation of a String Performance Rating Scale. *Journal of Reseaarc in Music Education*, 50(3). <https://doi.org/https://doi.org/10.2307/3345801>