

# Development of Vocal Teaching Materials Based on Keroncong Singing Ornaments to Strengthen Western Vocal Techniques

Diah Latifah, Rita Milyartini  
Universitas Pendidikan Indonesia  
Jalan Dr. Setiabudhi No. 229 Bandung

## ABSTRACT

This study aims to develop teaching materials based on *luk* Keroncong song ornaments. The method used is a design based-research, which is employed to develop teaching materials, which are based on the theoretical and application activities in order to examine the strength of materials. The results of the study reveal that, first, the *luk* Keroncong ornaments, when it is used, it strengthens the vocal technique used by the respondents; second, this research also finds out that teaching materials employed in the classroom can improve the respondents' vocal technique. Notable areas of improvement and strengthening of the respondents' vocal technique are observed in their breathing management (*appoggio*), vocal registration, especially when there are changes in the timbre (*passaggio*), head-voice resonance, a flexibility of tone, and stability of tone.

Keywords: instructional materials, *luk* keroncong ornaments, implementation, vocal techniques

---

## INTRODUCTION

This research is based on observations of some students who love to sing keroncong songs can strengthen their vocal techniques when they study in the Western vocal class. After further study, it is found that when the students sang an interval leap both up and down, when they use keroncong ornaments unwittingly, it improves their vocal techniques. Based on this fact, the research team decided to investigate deeper, whether ornaments of keroncong contributed to the reinforcement of Western vocal techniques, followed by composing a model of teaching materials based on keroncong song ornaments. The teaching materials, according to Sudrajat (2008: 1), are:

"Teaching materials or instructional materials are knowledge, skills, and attitudes that students must learn in order to achieve a defined standard of competence. In details, the types of learning materials consist of knowledge (facts, concepts, principles, procedures), skills, and attitudes or values".

The teaching materials used in this research will be focused on the use of Keroncong *luk* musical ornaments to strengthen Western vocal techniques.

The origin of Keroncong music, according to Becker in Ganap (2006: 93) "Kroncong was brought to eastern Indonesia (the Moluccas in particular) along with the guitar like an instrument by Portuguese sailors and seems to have been rapidly accepted by the indigenous population." This statement means Keroncong was sent to the eastern part of Indonesia by Portuguese sailors along with instruments like guitars and seemed to be quickly accepted by the local community. The characteristic that makes keroncong musical expressions unique is how to bring the music. Keroncong music, accompanied with some reinforcing musical paths, among others, *cak* and *cuk* interact with each other, forming a pattern of complementary accompaniment, comple-

mented by the pattern of cello rhythm, as the main rhythm with bass. Ganap (2006: 95) states:

Krontjong Toegoe genre, which became the forerunner of Indonesian keroncong music. They made a small Portuguese guitar instrument in three types of *prounga* sizes, *macina*, and *jitera*, which in Maluku is called *ukulele*, derived from the Hawaiian *ukelele* term means 'jumping finger'. Among Tugu Village community, the *ukulele* name was later changed to *kroncong*, the term *onomatopoeic* according to the *crong* sound that was produced. The music which is played by the ensemble of three types of *kroncong* instrument was also later referred to as *keroncong* music.

The keroncong song that gets the influence of Javanese ethnic music is brought up with a sense of *nggandul* metrics or the fall of initial phrase, or in the Western tradition world, it is termed *upbeat*. *Kroncong* singing comes with some vocal ornaments. The general art language for keroncong ornaments is often called the *cengkok*, regardless the shape of processing ornament. There are several ornaments in the keroncong vocal, one of them is *luk*. This ornament comes from Javanese culture ornaments.

In this study, *luk* as ornaments of keroncong singing is used to strengthen some vocal techniques. Vocal technique is performing the sound production tools in the human body, which works to produce sound. There is the power of breath support (breathing technique), sound resonance (the cavity in the human body which is used as a vocal echo by the vocalist, the best used is head cavity), diction and articulation (techniques to articulate each word in the language according to the style of the language sung will affect the placement of sound or placement techniques), stability and tone (voice) techniques, body posture when singing, voice register processing, this technique is used to disguise contrasting voice differences when register changes (rearrange the row from bottom to top, with a register change mark-

ing the sound color change).

Some of the vocal techniques studied in this research are in accordance with the level of difficulty of vocal techniques that are provided to the students include respiratory techniques. Regarding this Dayme (2009: 64) states:

Correct breathing for singing may have to be practiced consciously when the singer's habits inhibit efficient vocal production. Ultimately these movements are automatically programmed and become a reflex. The good singer subconsciously judges and uses the amount of air needed in every song for each phrase regardless of the length (see Wyke, 1979). When movement is controlled unconsciously, a conscious effort can then be focused on interpretation rather than on mechanics of singing.

This statement means that correct breathing when singing should be consciously trained when singer habits inhibit the production of vocals efficiently. Ultimately, this movement is automatically programmed and becomes a reflex. A good singer consciously determines and uses the amount of air needed in each song interpretation for each phrase regardless of the short length of a sung phrase (for discussion see Wyke, 1979). When the respiratory movement is controlled reflexively, a conscious effort can be focused on the interpretation, not on singing mechanism alone. This means that basically the breathing technique is not solely used for the application of breath support for sound production, but more than that, the control of breathing is used to support the interpretation of the song, in this case, the interpretation of the vocal work.

In addition to the breathing control techniques, another technique studied in this research is a register technique. The register technique is used when a range of tones indicates a change of vocal colour (*passagio*).

In regard to this, Hubatka (2012: 89), states:

It is generally understood that a register of the voice is a sequence of tones with the same quality of sound. Because the notes of the singing voice take on a different character from the resonance they obtain, it seemed logical to define homogeneous sounding consecutive notes by the term “register,” hence the names of “chest,” “medium” and “head”.

The above statement means that it is generally understood that the voice register is a tone sequence with the same sound quality. It is because the tone of the voice is sung into different characters (accepted by the auditory perception of their resonance characters). It seems logical to define a homogeneous sound of successive ringtones in the register terminology, therefore called the register “chest” registers “middle” and “head” or top registers. Nadoleqzny (1923) (in Dayme, 2009: 110) states:

The registers are caused by a definite mechanism (belonging to that register) of tone production (vocal fold vibration, glottal shape, air consumption), which allows for a gradual transition however from one into an adjoining register. A number of these tones can actually be produced into overlapping registers but not always with the same intensity.

In addition to the register technique, another technique in the vocal art that is studied and applied in this research is the position of head voice (voice head resonance). Latifah (2016: 15) argues:

Head voice, an old statement always echoed in the process of vocal education. In order to achieve sounds that have sensation resonance in the head, voice placement in the head is not an independent workflow, but rather a systemic workflow of some of the sound producing organs.

The voice character, which is produced with head voice, has the characteristic of “round and not broken” or in terms of vocal language commonly called *sonor*. The voice with these characteristics has a high aesthetic value in the vocal world of Western tradition, especially in the tradition of Western Europe.

The power of keroncong ornaments in vocal gives its own aesthetic characteristics. The ornament of keroncong singing, especially *luk*, has a distinctive characteristic, which makes a specific expression in its musical tone. Milyartini, Latifah, and Virgan (2015: 20) states:

*Luk* is a vocal ornament similar to *appoggiaturas* used to decorate melodies. This tone is within seconds of the intended tone and sung in *legato*. *Luk* can move up and down, but usually more widely used is *luk* that moves up. *Luk* is sung in a *legato*/spliced and somewhat swung.

Notes of *Luk* ornament seemed as notation 1.1 as shown in Fiksianina in Milyartini, Latifah, and Virgan (2015):



Notation 1.1

The provision of Keroncong's *Luk* ornamentation to strengthen the vocal technique is given on the process of learning vocals at UPI (Universitas Pendidikan Indonesia), one of the universities that have a department of music education, aiming to produce music teachers. The movement of *Luk* ornament is similar to *portamento* in Western vocal technique. *Portamento* allows the cavities to keep opening so as to produce a colour that is colourful and fused. Pilotti in Latifah (2015: 115) states:

...should be used “sparingly for expressive purposes” (Stark 1999: 165). In *bel canto*, *portamento* plays such an important role that it has become completely associated with the style. However, it is not only a decoration, but a means to maintain the position (“open throat”) throughout the vocal range. This gives an unbroken feeling of *legato* and a homogenous timbre (interview with Nordfors).

Some students who follow vocal lectures, to strengthen their vocal techniques, are generally using Western vocal techniques, with strands of foreign melodies, which are read primarily at learning pro-

cess. They performed sight-singing from the etude of reinforced vocal technique that was supplied. With *Luk* provision of keroncong to strengthen vocal techniques, and with easy etude that can be studied first, students are invited to learn more focused on vocal techniques, because the melodies of keroncong songs containing *luk* ornaments have been known. They do not have to be *prima vista* or sight singing reading to the etude Western traditions to strengthen vocal techniques, which often lead to a split concentration between reading etude notation and strengthening the vocal technique that is supplied. The importance of vocal learning is one of the essences of the main musical provision in the achievement of musical feelings. Philips and Vispoels (2010: 97) express, "Singing is the core of elementary general music program. Picerno (1970b) and Pendelton (1975) reported that the activities of most judged by classroom teachers to be within the range of their teaching abilities focus on singing". This statement means that traditional singing is at the core of the basic music program. Picerno and Pendelton in Philips and Vispoels (2010) reported that activities in the classroom are determined teachers who have long-standing teaching skills focused on singing ability. From this statement, it can be concluded that if someone wants to have the basic skills of music, he should be based on singing ability. Good singing will equip the basic knowledge of music that every individual need. With the background presented, this research examines the teaching materials using *luk* vocal ornament on keroncong song to strengthen the vocal technique.

The problem formulated of this research is as follows: (1) Does *luk* ornament in keroncong song has the power to strengthen vocal technique?; and (2) how is the design of the vocal teaching material using ornament of Keroncong *luk* used to strengthen the vocal techniques?

The purpose of this study is to asses advantages and limitations of teaching materials based on keroncong ornament which focuses on *luk* to strengthen the vocal technique, and to arrange the teaching material design that reinforces the vocal technique using keroncong *luk* ornament.

## METHOD

The research method used in this study is a *design based-research*. This research method is one of qualitative research development methods (Barab & Squire, 2004). Latukeffu (2010) in Milyartini et al, (2015: 15) says, "Design based-research, also known as development research, is concerned in developing broad models of how humans think, know, act and learn. This statement means that design-based research is also known as development research, which is concerned with the development of comprehensive models of how humans think, move, and learn. Milyartini, et al (2015) quoted Collins et al (2004), in Latukefu (2010: 24) states," Design-based research addresses theoretical questions about the nature of learning in context, approaches to the study of learning phenomena in real situations and the need to derive research findings from formative evaluations."

Latukefu's design is employed to dig materials or teaching materials using keroncong ornaments to strengthen vocal techniques through a qualitative approach. This means that design-based research is aimed at the theoretical question of natural learning in the context of the research findings from formative evaluation. The re-

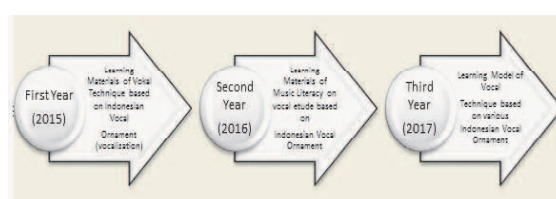


Figure 2. 1  
*Design based research of research programs*



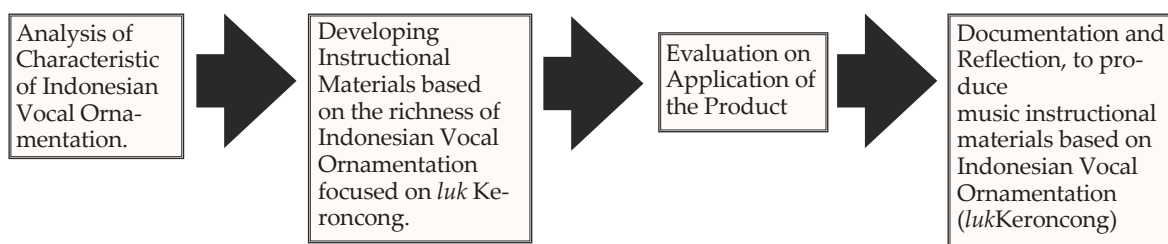


Figure 2. 2  
Design based research implemented in the first year

search and development design carried out is shown in figure 2.1.

This research that was conducted in 2015, is the implementation of the first year of the research. It has produced the design of teaching materials of vocal techniques based on *luk* ornament on keroncong. Design based research implemented in the first year of the research as shown in figure 2.2.

Research instruments used are observations, interviews, rubric assessments, the emergence of vocal technique when respondents produce *luk* ornament, and assessments of vocal reinforcement techniques for evaluation purposes.

The respondents of the study are 14 students of instrument subjects with vocal as the third choice, and they use keroncong-based etude ornaments that are created as teaching materials. All keroncong ornaments used are *luk* and *gregel* ornaments on keroncong. However, this study focused on keroncong *luk* ornament as it is used as the teaching materials.

## RESULTS AND DISCUSSION

The teaching materials are based on etude-based ornament *luk* vocal keroncong creation, compiled by Dr Rita Milyartini, M. Si., the principal investigator of Competitive Grant Research entitled *Model of Vocal Technique Learning Based Ornamentation Vocal Nusantara* (2015).

The etude-training pattern of keroncong at number one at art teaching materials is arranged to relax the vocal cords during

warming up or when the vocal cords start to produce the sound. Keroncong material begins with the eighth note, which moves down and rises with the second interval, and two beats duration. This explanation is depicted in the etude notation below:



Etude based on *luk* Keroncong no 1

The practice of etude *luk* keroncong no 1 sung in *andante*, which ends with silence at each end of the phrase, giving space to students (respondents) to inhale or exhale. This exercise strengthens the breathing control, which begins with a movement to support breathing when the beginning of the phrase is sung (attack), followed by holding breath when the *luk* is sung (produced) at the end of a phrase with a duration of two taps, and ended with resting to inhale again, to prepare for singing the next phrase. In addition to breathing control, this exercise strengthens the register technique, as it is sung in some rising tonality, especially when producing *luk*. Respondents will experience reinforcement of register transition process techniques in this exercise process.

Etude number 2, which has an ornament of *luk* keroncong song, has a higher difficulty level, especially the mastery of

the power of breath support in the process of sound stability. The processing of the tone stability technique begins with a two-tone repetition, followed by the production of the *luk* towards the next note. Etude also strengthens the production of tone stability supported by *luk* production, to reduce sound tension. *Luk* is produced in the middle of a melodic sentence that is held in two taps, ending by producing a *luk* at the end of a melody with a two-tap breath. With the process of holding a deep breath on the tone that begins with the *luk*, and produced a fairly stable sound after the *luk* produced, this ornament has been shown to strengthen the stability of sound production (tone stability). The etude list 2 is written like this:



Etude based on *luk* Keroncong no 2

Etude no. 3 is structured to refine the vocal technique, which begins by reducing the tone of the vocal tone since the vocal exercise on the etude is a major scale arrangement. If singing the major scale as written without vocal cords training is almost certainly the process of singing the major scales in this exercise will be generated by sound tension. Voice engagement and vocal cord warming are done by producing *luk*. Combined diaphragmatic breathing controls and positioning sounds using head voice and producing *luk*, to withstand sounds over long periods of time, resulting in a sound resonance to sing the tone impediments when the respondent sings a long tone with the required breath hold. At this point, *agoglio*

*respiratory technique* is used. This capability is an extension of the regulation of the carrying capacity of the breath to maintain the expansion of the tone. Production of tones with duration of four taps, performed after the *luk* is produced, which aims to relax the vocal cords, before the breath-holding on long sound production is performed. This exercise is useful for training register processing and breathing control, because in the ranks of one octave up there is a change of register experienced by the respondent, other than positioning the voice on the head voice during *luk* production. Etude no. 3 is the application of etude with the use of the highest vocal technique compared to etude no. 1 and no. 2.



Etude based on *luk* Keroncong no 3

## Discussion

In this section, some aspects need to be discussed more deeply includes how teaching materials based keroncong *luk* ornaments can be used to improve vocal techniques.

As we know that to produce sound requires good breathing technique that is appropriate for the production of sound that will be generated. For example, when sound production is required to hold the tone for a sufficiently long period of time, the respiratory process must be well-managed, which is, in general, it requires support to carry the capacity of the diaphragm muscles, or muscles surrounding the chest cavity and abdominal cavity. This process begins with breathing activity (inhaled air through the nose or mouth sufficiently), in a good way, followed by controlled breathing to produce the sound according to the

required sound production, and release it through controlled sound production as well (release) to achieve aesthetic sound production in accordance with the genre or style of vocal works. Similarly, when there is a motion of the vocal melody, either directly bounce up e.g. octave interval jumps (8 tones up), or sect (6 tones up), or down jumps such as a downward interval leap (7 tones down) or *kwint* down (5 tones down) need to embrace good breath control when producing sound, either at the time of attack, or at the time of re-release and sound arrest when singing motifs that make up melody between attack and release. This process can be easily described as a process of breathing techniques to achieve balance in the breathing process in the sound production process. In keroncong *luk* production, this technique smoothens the breath support by flexing the vocal cords, dampening the tension so that the *appoggio* process to jump up the tone, or down which continues with the usual long tone detection helps and makes it easier for someone to achieve a sound production balance or *appoggio*. This prevents the respondent not to pant and tense when through a long melody, especially if accompanied by a considerable interval jump on melody motions. Furthermore, Dayme (2009: 64) states:

For stage performance more air, and therefore, more physical energy, is necessary, and efficient breathing must initially become a conscious or voluntary act. Proctor (1980) writes, "It is immediately apparent that gross alterations in the pattern of quiet breathing are necessary for phonation. During the speech the greater portion of airflow passes through the mouth rather than the nose: inspirations are brief and rapid; expirations are prolonged and slow, and airway pressures are more negative in inspiration and more positive in expiration. These variances from ordinary breathing are more pronounced in singing than in speaking.

This statement means that for stage performance requires more air (in breathing), the more physical energy required, if neces-

sary, breathing must begin efficiently and become conscious action.

The explanation becomes clear, that the overall change in the calm breathing pattern is necessary for the phonation. During talking a larger portion of the airflow passes through the mouth than the nose: short and quick breath-taking; long breathing and slowing down; and less air pressure when taking a breath and more positive when breathing ends. This variety is commonly used breathing, and it is clearer to sing instead of speaking. In this description explained that a stage singer, in particular, should be able to manage the breathable to take a breath quickly and quietly and relaxed, and this should be his personal consciousness, which subsequently exhales along with the production of sound effected effectively according to the melodic phrase of the vocal works sung, until the vocal melody phrase is finished. This performance process also produces sound stability, due to its effective breathable power. This ability can be strengthened through the use of keroncong *luk*. As respondents sing keroncong's work and reinforce breathing controls, they are easier to explore more aesthetic values of expression. With the power of breath control, producing stability and tone flexibility, respondents are more comfortable expressing and interpreting the vocal work as expected.

When a person is singing and expressed in the vocal melodies, through some tone areas (in octaves) there is usually a change in the colour of the sound. Sound colour changes require sound production technique practice, which is commonly termed by register technique, to disguise or eliminate drastic sound colour changes. The register technique is a technique whereby a person is trained to maintain and manage vowel movements of vowels and dead letters in several positions according to the shape of the sound production equipment around the mouth and the head vocal posi-

tion of the Western vocal special so that the sound does not change colour too much. Keroncong's letters on the composed material proved to have softened and relaxed the vocal cords, as someone crossed the register. Latifah (2015: 118) states:

Research results and discussion show that the practice of singing *luk* ornament has proven to be effective in strengthening the vocal register. It is due to the character of *luk* ornament that has the western vocal ornament character *portamento*, presents a smoother extreme interval voice. This happened because of the interval leaps from one tone to another town with a swing of the voice stream. This performance will eliminate tension in the sound production.

This means that the results of research and discussion show that the practice of singing proved effective in strengthening the register technique in vocals because the ornamental character resembles a *portamento* vocal ornament, which smooths the movement of extreme intervals on vocal. This happens because the interval that jumps from one tone to another is done by swinging it. This activity will eliminate the tension during sound production. The ranks of voice registers can be seen in figure 3.1.

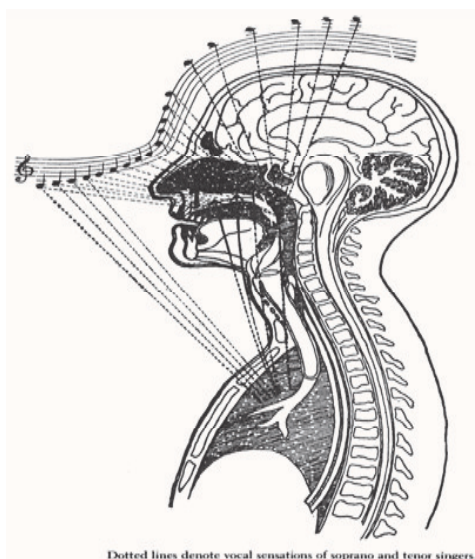


Figure 3.1 Sensation of resonance vocal register to Soprano and Tenor. Source: Lehman, in Latifah, 2016: 23)

The sound flexibility technique is well passed by someone who learns to sing by

using keroncong. When the *luk* is produced, motif movements resemble *portamento* is practised with good breathable power. Movement of curved motive or *luk*, in Indonesian terms, can be expressed with *menyendok* motive motion. This movement makes the vocal cords become more relaxed, and not tense so that the interval leap that occurs on the melody motive passed by respondents with a relaxed and flexible, resulting in the production of a flexible sound.

The next vocal technique that is observed is strengthened and improved upon the use of keroncong *luk*, is the technique of head voice position or the use of head resonance. The use of head resonance for Western vocal techniques is very valuable. One use of this technique is to avoid respondents using the neck cavity as a resonator space. According to a health professional who supports the theory of Western vocal techniques, the use of head resonance is healthy, by avoiding someone to use the neck resonator space where there are vocal cords and excessive pressure of the muscles surrounding the vocal cords, avoiding the vocal cords being damaged or torn, as too many vibrations are produced in the area. In addition to health reasons, voice with the head voice position, according to the aesthetic support of Western tradition, has

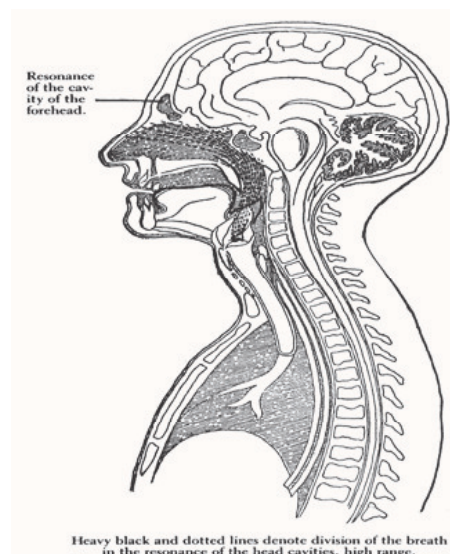


Figure 3.2. Good vocal position (head voice) Source: (Lehman in Latifah 2016: 14)



a wealth of colours, in accordance with the mother tongue adopted by various tribes in the plains of Europe.

## CONCLUSION

The vocal technique based on Indonesian vocal ornaments on keroncong has been shown to significantly strengthen and even improve vocal technique. The vocal technique that has been proven to strengthen and improve the vocal is the breathing technique, in the form of a breath-carrying power when it is produced to the tone sung. At the moment, there is a sound balance production process when the respondent sings the melody on every phrase of the vocal work. This balancing process in Western vocal techniques is commonly termed *appogiote* techniques. The next vocal technique that is reinforced and improved by using a keroncong ornament is a head voice or voice technique using a head resonator. Sound with voice head technique has a high aesthetic value of vocals, because it has a good feeling of aesthetic vocal wealth, and *sonor* or round, full and not broken. The next vocal technique that is greatly assisted by the production of *luk* is the technique of register process. Processing the register is a technique to sing the ranks of the tone by noticing the sound changes in order to avoid changes in colours that are too drastic or too different at each switch of the register. Subsequent techniques that are reinforced with keroncong-based etude ornament exercises are sound-bending exercises that produce tone flexibility or flexible sound production during switch transference or sound detection over a sufficiently long time duration, as there is no sound tension.

The design of teaching materials for vocal techniques based on ornament *luk* of keroncong proves to have significantly improved and strengthened vocal techniques. Vocal techniques that are fixed when using keroncong *luk* ornament are vocal technique; respiration (*appogio*), head voice technique, change register technique espe-

cially during *passagio* (sound colour change at sound area turnover, especially when voice colour change), sound flexibility and tone stroke techniques. The design of teaching materials based on *luk* Keroncong can be arranged as follows:

Design of vocal teaching materials “Etude Based On Keroncong *Luk* Ornament” to strengthen vocal technique”



Figure 4. 1

The design of etude based on keroncong ornaments is illustrated as shown in figure 4.1 stated that when students or practitioners practice the ornaments of *luk* on keroncong, unknowingly at the beginning of singing *luk* ornament warming the breath support (*appogio*), and at the same time there is vocal cord engagement, the sound flexibility delivers the tone to the next interval of the register technique, followed by applying the head voice technique to the intended tone with a stable tone production. Design of teaching materials that are produced based on vocal techniques that students practiced during vocal work using *luk* ornament.

Keroncong's ornaments have proved superior to strengthening respiratory control vocal techniques, registers, head voice position, tone stability, and sound flexibility. The limitation of the application of this ornament is that not all vocal techniques can be improved with the use of *luk* keroncong ornament, especially placement techniques that relate directly to the language

style of a culture in accordance with the mother tongue throughout the world.

### Recommendation

The studies of vocal teaching materials, especially study on vocal techniques with traditional Indonesian culture-based songs are still rarely performed. This study is one of the contributions to enrich vocal scholarly insights, especially vocal techniques, to improve the sound production quality that should be produced by a singer. The study of keroncong singing ornament is only one of the studies that have been shown to strengthen vocal techniques. The researcher hopes that this study will expand the study of other studies that produce vocal teaching materials, especially to improve the vocal technique for sound production to match the vocal style of the singer.

### Bibliography

Achmad Sudrajat

- 2008 *Konsep Pengembangan Bahan Ajar*. Taken from Depdiknas. 2006. Pedoman Memilih dan Menyusun Bahan Ajar. Jakarta.

Barab, S., & Squire, K.

- 2004 Design-Based Research: Putting A Stake in The Ground. *The Journal of the Learning Science*, 13, 1-14.

Daniela Bloem, Hubatka

- 2012 *The Old Italian School Of Singing. A Theoretical And Practical Guide*. London: McFarland & Company, Inc., Publishers.

Dayme, Meribeth Bunch

- 2009 *Dynamics of the Singing Voice. Fifth Edition*. New York: Springer Wien New York.

Diah Latifah

- 2016 *Vokal, Teoritis & Praktis*. Bandung: Bintang Warli Artika

---

- 2015 Strengthening Vocal Register through Through Tembang Jawa Ornament Practice. *Harmonia: Journal of Arts Research and Education* 15 (2) (2015), 113-118. Available online at <http://journal.unnes.ac.id/nju/index.php/harmonia> DOI: 10.15294/harmonia.v15i2.4428.

Kindall-Smith, McKoy, K. L., & Mills, S. W.

- 2011 Challenging Exclusionary Paradigm in Traditional Musical Canon; Implications for Music Educational Practice. *International Journal of Music Education*, XXIX (4), 374-386.

Latukeffu, L.

- 2010 *The Constructed Voice: A Socio-Cultural Approach to Teaching and Learning Singing*. 18. University of Wollongong Research Online. Taken April 17, 2013, from <http://ro.uow.edu.au/theses/3371>.

Milyartini, Latifah, dan Virgan

- 2015 Model Pembelajaran Teknik Vokal Berbasis Ragam Ornamenasi Vokal Nusantara. *Laporan Penelitian Hibah Bersaing DIKTI Tahun 2015*.

Phillips, Kenneth H. and Vispoel, Walter P.

- 2010 *The effects of class voice and breath management instruction on vocal knowledge, attitudes, and vocal performance among elementary education majors*. *The Quarterly*, 1 (1-2), 96-105. (Reprinted with permission in *Visions of Research in Music Education*, 16 (1), Summer, 2010). Retrieved from <http://www-usr.rider.edu/~vrme/>.

Victor Ganap

- 2006 Pengaruh Portugis Pada Musik Keroncong. *Harmonia Jurnal Pengetahuan dan Pemikiran Seni*. Vol VII, No. 2, Mei-Agustus 2006, 93-99.