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VOCAL LEARNING OF EAST JAVANESE SINDHENAN STYLE USING THE PROJECT BASED LEARNING (PJBL) MODEL IN THE KARAWITAN DEPARTMENT OF SMKN 12 SURABAYA

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Abstract: Initially, the learning conditions in the East Javanese style vocal sindenan subject in the Karawitan Department of SMKN 12 Surabaya were felt to be ineffective. This prompted the vocal teacher to use the Project-Based Learning (PjBL) model. This study employed qualitative and descriptive methods. Data collection methods included observation, interviews, and documentation. The study involved karawitan art teachers, vocal teachers, and 12th-grade Karawitan students at SMKN 12 Surabaya. Data analysis was conducted by presenting the data and drawing conclusions. The results of the application of the project-based learning (PjBL) model show 5 learning outcomes, namely: 1) Students can understand the characteristics of East Javanese style sinden vocals, 2) Students are able to perform East Javanese style sinden vocals according to the rules, 3) Students are able to innovate in the form of developing East Javanese style sinden vocals, 4) Students are able to appreciate the process, and 5) Students are able to implement East Javanese style sinden vocals in real life. Time constraints, a lack of learning support resources, and differences in the vocal abilities of the students' singers are some of the challenges encountered. Therefore, the project-based learning model can be successfully applied in East Javanese style vocal singing lessons, especially in efforts to preserve traditional arts by using innovative and participatory learning stages.

Keywords: East Javanese Sindenan Vocal Learning, Project Based Learning, SMKN 12 Surabaya

1. INTRODUCTION

SMKN 12 Surabaya is the only state vocational high school focused on the arts in East Java. SMKN 12 Surabaya offers a wide range of vocational programs that aim to prepare students to be ready to work in the industrial world or continue their education to a higher level. The school has various majors, namely Software and Game Development, Multimedia, Painting, Visual Communication Design, Furniture Engineering (Interior Design), Animation, Batik and Textile Creative Craft, Leather and Imitation Creative Craft, Metal and Jewelry Creative Craft, Wood and Rattan Creative Craft, Film, Classical Music, Theater Arts, Puppetry Arts, Dance Arts and Karawitan Arts. The Karawitan Department at SMKN 12 Surabaya is an expertise program that focuses on learning Javanese musical arts. The program is designed to equip students with skills in playing traditional musical instruments such as gamelan, as well as sindenan vocal abilities that are typical in East Javanese traditional art performances. Learning covers both

theoretical and practical aspects, including an understanding of music schemes, playing techniques, and arranging existing music into new works. Through a structured curriculum, students are expected to be able to master musical techniques, understand local cultural values, and be ready to contribute to the preservation and development of Indonesian musical arts. The lessons given in the Karawitan Department include Surakarta style and Jawatimuran style karawitan. The Karawitan Department at SMKN 12 Surabaya is an expertise program that focuses on learning Javanese musical arts. The program is designed to equip students with skills in playing traditional musical instruments such as gamelan, as well as sindenan vocal abilities that are typical in East Javanese traditional art performances.

Learning covers both theoretical and practical aspects, including an understanding of music schemes, playing techniques, and arranging existing music into new works. Through a structured curriculum, students are expected to be able to master musical techniques, understand local cultural values, and be ready to contribute to the preservation and development of Indonesian musical arts. The lessons given in the Karawitan Department include Surakarta style and Jawatimuran style karawitan. Sindenan vocal learning is the process of learning techniques and skills in singing traditional songs with a distinctive vocal cadence of Javanese musical arts, especially in gamelan. Sindhen is usually accompanied by gamelan and has a vocal character that involves mastery of melody and rhythm and cengkok in accordance with Javanese cultural standards. Learning sindenan vocals emphasizes distinctive vocal techniques, such as breathing control, clear articulation, and the use of a melodic and melodious voice. Sindhen singers must be able to regulate their breathing to sing long and short notes in traditional melodies. According to Budiarti 2013, Sindenan is a vocal performance that follows the rhythm of gamelan music with a distinctive vocal technique based on Javanese aesthetic concepts. "Sinden is vocal material that contains *ricikan garap* which contains elements that must be processed and translated through musical language, these elements are text and song." "Voicing techniques include, *luk*, *wiled*, *gregel*, *angkatan*, *seleh* and breathing techniques".

However, Javanese karawitan does not use all of these techniques, only the *gregel* and *cengkok* techniques, which are *luk* and *wiled*. In East Java, there are different styles of sindenan *cengkok* from several regions, especially Surabaya, Jombang, Mojokerto, Gresik, Sidoarjo, Madura, Malang, which are commonly referred to as Jawatimuran karawitan rules. The music created from these regions is also very different and has its own characteristics. Vocal learning at SMKN 12 Surabaya is designed gradually to form strong and characterful sindenan vocal skills according to the Jawatimuran style. In this case Puji Astuti applies various methods so that students can understand quickly and precisely. For class X she applies the drill method where students do repeated exercises to master vocal techniques, including breathing, articulation, and proper use of *cengkok*. In class XI she applies the Jigsaw method where students learn in groups, give each other feedback, and collaborate in vocal exercises to improve their mutual abilities, and in class XII she applies project-based learning (PJBL) where students work in groups to design and implement a sindenan performance project in the form of *gending*, from planning to performance, in order to develop vocal skills and teamwork.

Puji Astuti's application of various methods in teaching Jawatimuran style vocal sindenan is due to the complexity of the material taught, which includes sindenan vocal techniques, the use of cengkok, and understanding sindenan in the form of gending. A variety of methods, including drill, jigsaw, and project-based learning, are used to suit students' varied learning styles, thereby increasing interest in the learning process and shaping overall skills. Besides focusing on mastering vocal techniques, students are also trained to develop self-confidence and stage etiquette through these various methods. The application of these diverse learning strategies aims to make students not only academically prepared, but also able to perform and contribute directly in the world of performing arts, making learning more contextual, lively, and meaningful. The PJBL (Project Based Learning) model is one of the stages of project-based learning that is centered on students through project preparation activities. This model is one of the relevant methods in learning vocal sindenan in class XII because it emphasizes the learning process through working on real projects that are meaningful and directly related to students' daily lives. In the context of learning sindenan Jawatimuran, this method can be applied through the project of making mini performances, recording sindenan vocals, to collaboration with local artists.

Researchers are interested in examining the Project Based Learning (PjBL) learning model in learning sindenan Jawatimuran vocals at SMKN 12 Surabaya by Puji Astuti because they see great potential in combining a project-based learning approach with the preservation of local traditional arts typical of East Java. SMKN 12 Surabaya as a vocational school that has a Karawitan department is the right environment to implement the PJBL model, especially in arousing students' interest and creativity towards vocal sindenan which is one of the important elements in traditional East Javanese performing arts. In addition, with this PJBL model learning, students can produce works through the explorative process taught by Puji Astuti. Through this research, it is hoped that it can support art learning and find learning strategies that are not only effective in terms of skills, but also relevant to encourage the preservation of local culture through education.

2. METHOD

The purpose of this research is to provide a comprehensive and systematic description of the application of the project-based learning model (PjBL) in learning sindenan Jawatimuran vocals at SMKN 12 Surabaya. Moleong (2017) states that a qualitative approach allows understanding of phenomena that occur in a natural context from the perspective of the participants. This research uses case studies. (Yin, 2018) states that case studies are used to study real phenomena thoroughly. This is especially true when the distinction between the phenomenon and its context is not clear. This study investigates a unique and contextualized method of learning sindenan in an arts vocational school. This research uses a descriptive qualitative approach to describe and understand the learning process of sindenan Jawatimuran vocal art at SMKN 12 Surabaya.

The Project Based Learning (PjBL) model is used to provide an overview of the processes, interactions, and experiences of students and teachers in traditional vocal art learning activities, especially sindenan with Jawatimuran characteristics. According to Moleong (2017:6), a qualitative approach is used to understand the social and cultural phenomena experienced by the research subject as a whole,

by describing the subject in the form of words and language in a natural context. Thus, the data collected are words, actions, and documents that describe the learning situation as a whole. This method allows the researcher to explore how the PjBL model is applied in sindenan vocal learning and how it impacts on student engagement and understanding. Thus, this method allowed the researcher to gain a deeper understanding of the phenomenon under study in the context of the learning environment at SMKN 12 Surabaya.

3. RESULTS AND DISCUSSION

3.1 Results

The results of the first application of the project-based learning (PjBL) model showed that most students had a significant improvement, especially in mastering basic vocal techniques and understanding the characteristics of typical Jawatimuran sindenan cengkok. Anggiasinta Srikandi Putri explained that: "I came to understand that sindenan Jawatimuran is more assertive and the tune is together with the gong or usually precedes the gong (Putri, interview on May 10, 2025). Students' knowledge of the characteristics of Jawatimuran style sindenan vocals is a provision to be able to present the material properly and correctly according to the characteristics of Jawatimuran style sindenan vocals. The second learning outcome is that students are able to perform or perform Jawatimuran style vocal sindenan in accordance with the principles that have been taught. Students' understanding and ability to implement sindenan and vocal techniques make their voices more in tune with the music. In addition, most students began to master the use of typical Jawatimuran style cengkok. The cengkok is a characteristic that distinguishes the Jawatimuran sindenan style and other regional sindenan styles. Puji Astuti revealed that: "Class XII students have been able to bring Jawatimuran style sindenan vocals in accordance with the pakem that has been taught in class, because they already have the material since class X and XI and more intense learning in class XII" (Astuti, interview on May 5, 2025). Students also show progress in improvisation techniques, which is not only imitating the style exemplified by the teacher, but they also begin to boldly learn how to sing more expressively and according to the character of their respective voices.



Figure 1 Final Project Performance by Grade XII Students
or Project Results Assessment.

(Source: Photo by the Karawitan Department Documentation Team)

The third learning outcome is that students are able to innovate the development of Jawatimuran style sindenan vocals. This is

evidenced in the final project performance stage which is presented with the innovation of each group that shows the courage to do something different outside the boundaries of tradition. "Children are now able to distinguish which cengkok is typical of Jawatimuran and which is not," (Astuti, interview dated May 2, 2025). This is a provision for students in making innovations in the final project performance. The fourth learning outcome is the growth of an attitude of respect for the learning process from the first to the last stage. Students are required to be able to master the Jawatimuran style sindenan vocal material well. This can happen if students are serious in learning the material both individually and in groups. Indirectly in this result, students are also taught how to manage well in responding to project implementation. The fifth learning outcome is that students graduating from the music department of SMKN 12 Surabaya are able to implement the learning outcomes outside of school, both as performers (pesinden & pengrawit) in various Jawatimuran traditional art performances (such as Jawatimuran Wayang kulit, Klenengan Jawatimuran karawitan, and Jawatimuran dance accompaniment). Overall, the learning results show that the PJBL model in learning Jawatimuran-style sindenan vocals effectively improves students' abilities, both in terms of technique, titi laras, and attitude. The project stage also encourages students to be more active in learning and makes them more appreciative of the creative process based on the Jawatimuran style musical art area. The learning outcomes are also evidenced by the students who graduated from the karawitan department of SMKN 12 Surabaya who are able to implement outside of school well.

3.2 Discussion

In the context of learning Jawatimuran-style vocal sindenan, PJBL encourages students to learn through exploration, collaboration, and the creation of real work. In accordance with the opinion of Gagne and Slavin, the success of learning is largely determined by how students experience the learning process directly. The application of PJBL includes important stages such as project planning, schedule preparation, practice implementation, evaluation, and performance, which makes learning more meaningful.

Project Planning

Project planning is carried out by giving students freedom in determining the selection of groups, selecting the music to be presented, determining the location of the project process, determining the time of the project process with the target of the project for the XII grade student assignment in the music department of SMKN 12 Surabaya. Project planning is carried out with teacher assistance in it, this is a consideration for students in various project determinations. The teacher's consideration in assisting at this stage is very important for the successful implementation of the project in the future. 1) Group Selection: Group selection is carried out with consideration of the competency abilities of each student. Each group consisted of 5 (five) students representing Kendhang, Vocal, Demung, Gender, and Gong Kempul instruments. The number of students in class XII consists of 31 students, so it will be divided into 6 (six) groups. 2) Gending selection: The process of selecting the music begins with a joint discussion between the students and the vocal teacher (Puji Astuti), where the teacher provides direction regarding the type of music that is suitable

for the sindenan vocal ability and the level of difficulty of the music. Students were given the freedom to choose from the various types of music that had been taught, namely Gending Sak Samirah, Gending Sak Luwung, Gending Sak Cokronegoro, all of which are distinctive in their vocal patterns and gamelan accompaniment. 3) Project Process Location: The location of the rehearsal process is in the Karawitan room at the Karawitan Department of SMKN 12 Surabaya. The location was chosen because it has complete facilities, such as a set of Pelog and Srengro gamelan, an air-conditioned room that is comfortable for practice, and a room that has a wide size, so it is enough to accommodate students who will practice. 49 The location is also easily accessible for students and also the closest to students and teachers. So that it can facilitate the process of practicing or implementing projects and monitoring each group. 4) Process Time: Each group has a minimum rehearsal or project implementation and monitoring time of 1 (one) month before the performance or testing of the results. Consideration of the schedule or time of project implementation is based on the maturity of the material to be presented, also taking into account the teacher's consideration who feels that with a minimum time of 1 (one) month it will be able to produce a presentation that is worthy of being assessed and watched by the public. 5) Project Objectives: The goal of the project of learning vocal sindenan Jawatimuran style with the Project Based Learning (PjBL) model is to meet the graduation standard in the final project exam for students majoring in karawitan at SMKN 12 Surabaya. This is a provision for students to implement the competencies that have been obtained outside of school.

Schedule Development



Figure 3 Teacher Monitoring (Puji Astuti) in Routine Training Sessions for Each Group
(Documentation, Dhea 6 February 2025)



Schedule preparation is a very important part before heading to
Figure 2 Discussion on Schedule Preparation between Teachers and Students
(Documentation, Dhea 6 February 2025)

the project implementation stage. The schedule development stage

involves all the people involved in this learning process, namely the teacher (Puji Astuti) and all the student groups that have been formed. The schedule includes various important steps in the implementation of the project, such as regular practice sessions for each group, special time for formative evaluation or practice guidance sessions with the teacher, gross rehearsal and clean rehearsal before the event, presentation of project results or testing of project results, and evaluation schedule of project results. The preparation of the above schedule is a time planning stage in order to ensure the success and smooth running of the project that will be carried out by mutual agreement. The involvement of all students (each group) and the teacher in the process of preparing the schedule is an important component of learning. Students have the opportunity to speak directly and express opinions, consider each other's readiness, and adjust schedules with other learning activities. This indirectly trains students to think critically and take responsibility for their time and the role they will play in the project. This process also encourages a sense of ownership of the project as students are involved from the start. Schedule development also serves to facilitate the project, so that later it can face difficulties, both technically and managerially. This activity is very important to ensure the learning process runs smoothly from start to finish. The project schedule stage also serves as a good way to communicate between teachers and students. The teacher can openly explain the learning objectives to the students so that they understand what has to be done and achieved within a certain period of time that has been mutually agreed upon. Conversely, students can also convey their difficulties or needs so that teachers can consider solutions to these problems. Communication helps both parties understand each other, resulting in a more effective and efficient learning process. In general, the timetabling phase is critical to the success of the PPA model, not only as a managerial tool but also as a learning medium that instills students' sense of responsibility and helps them plan, cooperate and communicate. The schedule that has been compiled together is used as a reference for each activity that will be carried out. It also serves as a teacher's gauge to assess how actively students are involved in learning Jawatimuran-style sindenan vocals at each stage.

Project Implementation

Project implementation is the next step in the project-based learning (PBL) model after developing and approving the activity schedule. At this stage, students begin the core activity, which is practicing the 54 vocal gending sindenan in the Jawatimuran style that has been selected by each group. This practice is carried out gradually and continuously according to the established schedule. Each practice session aims to improve skills in Javanese-style sindenan vocal techniques, including intonation, articulation, emotional expression, and understanding of the structure of the gending. In practice, students are given the freedom to try various vocal techniques, but within the boundaries of the Javanese sindenan style. The role of the teacher, in this case Puji Astuti (the vocal sindenan subject teacher), is as a mentor, facilitator, and evaluator of each group's learning process during regular practice sessions up to the performance day. The teacher assists students directly through demonstrations, discussions, and technical corrections during the practice process. There is direct feedback between the teacher and students, encouraging continuous improvement, with each teacher-student interaction having educational value. This feedback is individualized and formative,

tailored to the needs and abilities of each student. This method encourages students not to fear making mistakes but instead to continue learning and developing.

Testing Results

The testing of project results in the form of a final project performance is an effort by 12th grade students to demonstrate their mastery of the Javanese vocal style of sindenangaya, specifically their mastery of the musical scales presented in the gending, their mastery of Javanese vocal techniques (cengkok, articulation, intonation, breathing, and gregel) in the gending presented, and mastery of body posture in performing Javanese-style sindenan vocals in the gending presented. The project results are tested through formative assessment of the final project performance as a direct representation of the students' project results. During practice, formative evaluation was conducted periodically by the teacher in charge of the Javanese-style sindenan vocal subject (Puji Astuti). The teacher evaluated the students' vocal abilities in various aspects, such as mastery of cengkok technique, articulation, and pitch when combined with the selected Javanese-style gending.

Assessment is conducted using a qualitative approach, whereby teachers provide scores in addition to descriptions of student achievements and constructive suggestions for improvement. This allows students to gain a deep understanding of the results of the learning process. The final project presentation serves as a demonstration of students' competency in mastering the material from the entire project-based learning process. Students are given the opportunity to showcase their practice results in front of their parents, educators, classmates, or even a larger audience, such as school staff or invited guests. This performance assesses vocal abilities as well as mental aspects, such as courage, readiness to perform, and the ability to overcome stage fright. The quality of Javanese-style vocal performance, pitch accuracy, improvisational techniques, team cohesion (if performing in a group), and stage presence are all factors evaluated in the performance assessment. Students not only receive feedback on their performance during this testing process but also gain experience in presenting their artistic work directly. This is contextual learning that enhances the skills of SMKN 12 Surabaya's music department students as aspiring young artists and preservers of local culture, particularly within the context of Javanese-style music.

Evaluation of Learning Experiences

The final stage of the project-based learning model is the assessment of students' learning experiences. This assessment is reflective in nature and aims to evaluate the entire learning process, from planning and implementation to testing the results of the project to achieve the desired outcomes. Reflection is carried out by teachers and students through classroom discussions and brief interviews. This activity allows students to express their feelings, experiences, and knowledge gained during the project. Students share how they understood the material, the challenges they encountered during practice, the methods they used to overcome obstacles, and how they assess their own progress in vocal skills. Additionally, students are given the opportunity to evaluate how teamwork functioned, how the group operated, and how they participated in collaborative activities. Metacognitive awareness, which refers to the ability to assess and control their own learning processes, is strengthened by this assessment. From the teacher's perspective, the evaluation is conducted by

assessing how effective the PJBL model is in teaching Javanese vocal music in the XII grade of the karawitan department at SMKN 12 Surabaya.



Figure 4 Evaluation of Final Project Performance Results.

Source: Photo by Karawitan Department Documentation, SMKN 12 Surabaya

Teachers evaluate whether learning objectives have been achieved, whether the methods used are appropriate, and how students are engaged in each stage of learning. The results of the evaluation can be used as a basis for improving the learning process in the future. In this case, the evaluation of the learning experience serves as an important conclusion to the project, meaning that it not only assesses the project results but also understands the entire process as an important component of learning. Students not only acquire technical skills but also learning values such as responsibility, hard work, reflection, and appreciation of local art and culture (Javanese vocal style).

4. CONCLUSION

The implementation of the Project-Based Learning (PjBL) model in teaching Javanese vocal music has proven to improve the overall quality of learning in the 12th grade Karawitan Department at SMKN 12 Surabaya. Through a project-based approach, students not only gain theoretical understanding of traditional vocal techniques but also experience contextual and practical learning processes. This model encourages active student engagement in the learning process through collaborative, exploratory, and creative activities, from the planning stage to the performance of the art project. The impact is evident in five key outcomes: understanding vocal characteristics, the ability to perform sindenan according to traditional standards, vocal innovation skills, appreciation of the process, and the application of skills in real-life and professional contexts. Teacher support as facilitators, along with the use of adaptive strategies such as after-school practice, recording, and group formation, also helped overcome emerging challenges. Thus, the PjBL model is not only effective in enhancing students' vocal competencies but also serves as a relevant strategy for preserving local traditional arts within the vocational arts education environment.

AUTHOR CONTRIBUTIONS

Dhea Ahmanda Putri acted as researcher and author of the article, while Warih Handayani as the supervising lecturer who patiently provided criticism and advice and guided the author in writing this thesis.

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