PROBLEM-BASED LEARNING MODEL IN ARTS AND CULTURE SUBJECTS VOCAL ARTS MATERIALS FOR GRADE 9F AT SMPN 3 KUTOREJO

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Abstract: This study aims to analyze the application of the problem-based learning model (PBL) in the Arts and Culture subject of vocal arts in class 9F of SMPN 3 Kutorejo. The focus of the study includes the process of implementing the model, student learning outcomes in the cognitive, affective, and psychomotor domains, and obstacles that arise during learning. The study used a descriptive qualitative approach with subjects of class 9F students and Arts and Culture teachers, and the object was the process of learning vocal arts through PBL. Data were obtained through observation, interviews, documentation, and literature studies, then analyzed using reduction, presentation, and conclusion drawing techniques, and tested through triangulation of sources and techniques. The results showed that the application of PBL increased students' activeness, creativity, and understanding of vocal techniques, especially in aspects of breathing, articulation, and expression. Students actively participated in finding and solving vocal problems through group exercises and performances. Improvements were seen in cognitive abilities, attitudes of responsibility and cooperation, and vocal skills. Obstacles found included lack of interest, self-confidence, and mastery of basic techniques. Teachers addressed these through out-of-class learning and intensive guidance. Overall, this model effectively improved students' competence and character in learning vocal arts.

Keywords: Problem-Based Learning, Arts and Culture, Vocal Arts, SMPN 3 Kutorejo

1. INTRODUCTION

The existence of art has always been closely linked to everyday human life. Art has evolved over a long period of time. This is because people can be both subjects and objects of art. Art itself is defined as works created with extraordinary skill, such as dance, painting, and sculpture. However, the definition of art can be universal and endlessly discussed. Art also has various branches, one of which is music.

Music is a work of art created by humans, art that expresses the contents and thoughts of the mind through sound or sounds that are organized, rhythmic, melodic, and harmonious, and evoke the feelings of the listener. Music can also be defined as an expression of the human heart created through sound or sounds that have rhythm, melody, and harmony.

In junior high school, there is a music art subject, which is a learning process that encompasses feeling and creativity, embodying the ability to express and appreciate art through sound and sound. This allows students to develop a healthy and balanced emotional and personality, such as discipline, tolerance, democracy, and social skills.

Education is a vital and ongoing process that helps us acquire the knowledge, skills, and values necessary to contribute fully to various aspects of life, both personally and in society. As the primary foundation for character and personality development, education

plays a crucial role in shaping individuals who are not only competent in their fields, but also possess good ethics, critical thinking, and broad perspectives. Education encompasses a variety of planned learning experiences, both inside and outside formal settings such as schools.

From elementary school through high school, art is also taught in the classroom. According to De Francesco (1958), in the field of educational creativity, arts education supports the brain, emotions, creativity, aesthetics, social, and physical development of each individual. Creativity is crucial in human life. Creative individuals are essential in this era of development to generate positive ideas that will support the government and society in advancing life and culture.

In the learning process, SMPN 3 Kutorejo implements arts and culture learning in the field of music to guide its students. SMPN 3 Kutorejo is a public junior high school located in Rejosari Hamlet, Kepuharum Village, Kutorejo District, Mojokerto Regency, East Java. SMPN 3 Kutorejo is a junior high school located in Kutorejo District, Mojokerto Regency, East Java, Indonesia.

Junior high school students at SMPN 3 Kutorejo participating in arts and culture learning have been facilitated with various approaches to support their learning process, including problem-based learning. In this context, 9th-grade students are taught proper breathing techniques when singing and how to apply unison singing techniques. This learning includes understanding the importance of proper breathing for a better sound, as well as collaboration in singing in unison to achieve harmony in performance.

Problem-based learning, according to Suprijono (2013: 68), is a discovery learning process consisting of processing, transforming, and evaluating information. In this case, the problem-based learning model encourages students to research topics related to the challenges they face during the learning process. Given the potential for research findings to be applied to other schools, SMPN 3 Kutorejo was chosen as a strategic research object to examine the positive impact of problem-based learning on music arts education in Indonesia.

From the description above, it can be concluded that problem-based learning at SMPN 3 Kutorejo deserves further in-depth study. Focusing on the use of learning methods in arts and culture, specifically vocal arts material for grade 9, which includes breathing techniques while singing and unison singing techniques, the researcher was able to obtain relevant data on the learning methods used. By examining this problem-based learning process, it is hoped that it will provide a clearer picture of how this method contributes to the development of students' musical skills and interests. Therefore, based on this description, the researcher is interested in investigating and conducting a detailed study entitled "Problem-Based Learning in Arts and Culture Subjects, Vocal Arts Material for Grade 9F at SMPN 3 Kutorejo."

2. METHOD

This research on problem-based learning models in music education uses an approach that relies on qualitative data. Qualitative data consists of verbal narratives, descriptions, and observations/analyses of written and oral descriptions. As stated by Bogan and Taylor in their book, Moleong (2014:4), "Qualitative methodology is a research procedure that produces descriptive data in the form of written or spoken words from people and observable

behavior." Kirk and Miller, in Moleong (2014:4), also agree, explaining that "Qualitative research is a particular tradition in the social sciences that fundamentally relies on observations of humans, both in their context and in their terminology."

The qualitative research approach used in this study focuses on the arts and culture learning process for vocal arts in class 9F of SMPN 3 Kutorejo. Researchers will conduct direct observations of the implementation of problem-based learning, from the planning stage through implementation, to student learning outcomes. Through this approach, researchers hope to obtain in-depth and valid data regarding the implementation of the problem-based learning model and its impact on student interest and learning outcomes in music.

Data collection techniques in this study included observation, interviews, and documentation. Observations were conducted directly at the research location, SMPN 3 Kutorejo, located in Rejosari Hamlet, Kepuharum Village, Kutorejo District, Mojokerto Regency, East Java. The purpose of these observations was to observe arts and culture learning activities on vocal arts using the problem-based learning model. Researchers recorded various activities, such as interactions between teachers and students, the learning methods used, and student responses during the learning process.

Following the observations, researchers continued with structured and unstructured interviews. The structured interviews used a pre-prepared interview guide to ensure the information obtained aligned with the research focus. Meanwhile, unstructured interviews were used to elicit additional information that emerged during the research process. Informants in this study included the arts and culture teacher in grade 9F who served as the learning implementer, as well as several students involved in vocal arts learning activities using the problem-based learning model. In addition to observations and interviews, documentation was also conducted to strengthen the data obtained. This documentation included photos, videos, lesson notes, and other relevant documents such as Lesson Plans (RPPs), student attendance lists, and student work in vocal arts lessons. Through this documentation technique, researchers were able to obtain concrete evidence regarding the implementation of learning and student learning outcomes.

Data sources in this study were obtained in two forms: written and unwritten sources. Written data sources included various documents related to the vocal arts learning process using a problem-based learning model, such as Lesson Plans (RPPs), evaluation notes, student grades, and photographs of learning activities. Meanwhile, unwritten data sources were obtained from in-depth interviews with various sources, including arts and culture teachers, ninth-grade students, and curriculum staff familiar with the learning process. These two types of data sources were used simultaneously to obtain more accurate and comprehensive information regarding the implementation of problem-based learning at SMPN 3 Kutorejo.

In this study, the researcher acted as the primary instrument, directly involved in the data collection process. Her presence in the field was not merely as a passive observer, but also as an active participant, participating in every vocal arts learning activity, from preparation to implementation to evaluation. The researcher directly observed teacher-student interactions during learning activities and conducted in-depth interviews with informants to gather information relevant to the research objectives. If there were discrepancies

between the data obtained through interviews and the reality on the ground, the researcher employed a case study approach to provide a more in-depth and objective explanation of the observed phenomena.

After all data was collected through observation, interviews, and documentation, the researcher compiled and analyzed the data in writing to produce conclusions that supported the research objectives. Data analysis was conducted in two stages:

1. Data analysis before going into the field

Before going directly into the field, the researcher conducted an initial analysis of secondary data obtained from preliminary studies and relevant literature. The goal was to determine the research focus and prepare research instruments. During this stage, the researcher studied theories related to problem-based learning, arts and culture learning, and vocal arts learning outcomes to establish a strong conceptual foundation for conducting the field research.

2. Field Data Analysis

Field data analysis was conducted concurrently with the data collection process. During observations and interviews, the researcher directly analyzed the findings to assess the alignment between theory and practice in the field. The analysis was conducted through a data reduction process, which involved sorting and selecting information relevant to the research focus, presenting the data in narrative form, and then drawing preliminary conclusions. In the final stage, the researcher verified the data to ensure its validity, ensuring the reliability of the research results.

To ensure the validity of the data obtained, this study employed triangulation techniques. Triangulation was conducted through three approaches: source triangulation, technical triangulation, and time triangulation. Source triangulation was conducted by comparing data obtained from various sources, such as teachers, students, and school officials. Technical triangulation was conducted by comparing the results of interviews, observations, and documentation to ensure complementary data. Temporal triangulation was conducted by collecting data at different times: before, during, and after the vocal arts learning process, to ensure the consistency and stability of the information obtained. Through the application of triangulation, it is hoped that the resulting data will be highly valid and scientifically accountable, so that the research conclusions truly reflect the reality of problem-based learning at SMPN 3 Kutorejo.

With this method and approach, the research is expected to provide an in-depth description of the implementation of problem-based learning in the arts and culture subject, specifically vocal arts, at SMPN 3 Kutorejo, and contribute to the development of music learning strategies at the junior high school level.

3. RESULT AND DISCUSSION

3.1 Problem-Based Learning Process for Arts and Culture Vocal Arts Material for Class 9F at SMPN 3 Kutorejo

Arts and Culture instruction, specifically vocal arts, in class 9F of SMPN 3 Kutorejo, is implemented using the Problem-Based Learning (PBL) model. This model is used to increase student active engagement in understanding and transmitting vocal techniques, as well as developing critical thinking skills in solving problems related to singing.

Class 9F receives two hours of Arts and Culture instruction per week. Each hour lasts 40 minutes, totaling 80 minutes of weekly vocal arts instruction. These lessons take place in the classroom under the guidance of the Arts and Culture teacher, who also acts as a facilitator in solving vocal problems faced by students.

The vocal arts learning process begins with the teacher presenting contextual problems, for example: "Why can't students' voices be heard clearly when singing in a group?", "What is the proper breathing technique for singing a long song without breaking off?", and "How can I convey vocal expression that aligns with the song's meaning?" These questions serve as the initial stimulus for students to begin thinking critically and exploring solutions.

Next, students are divided into small groups to discuss the presented problem. Each group is then asked to identify the root of the problem, develop alternative solutions, and try to apply them in vocal practice activities. During this stage, students practice basic vocal techniques such as diaphragmatic breathing, articulate pronunciation, intonation, and song appreciation. This practice process is carried out both individually and in groups, thus developing communication and teamwork skills among students.

The teacher brings each group together and provides guidance if any obstacles or errors in standard vocal technique are encountered. Furthermore, the teacher integrates formative assessment into each practice session, whether verbally, through observation, or through student reflection. Students are given the opportunity to share their learning experiences, including the obstacles they encountered and the successful solutions they implemented.

This problem-based learning model aligns with the principles of the Independent Curriculum. This curriculum encourages the strengthening of the Pancasila Student Profile, which consists of six main dimensions: faith and devotion to God Almighty, global diversity, mutual cooperation, independence, critical thinking, and creativity. Vocal arts learning through a PBL approach allows for the development of these dimensions, particularly in terms of collaborative learning, critical thinking, and creativity, as students actively build shared understanding and find solutions to real-life problems they face in the singing process.

The goal of vocal arts learning is for students to achieve the core competencies established in the curriculum: understanding and applying basic vocal techniques, recognizing the elements of vocal expression, and being able to sing songs accurately both individually and in groups. These objectives are formulated in learning documents such as the syllabus and teaching modules and are communicated by teachers at the beginning of the learning process as a reference for students.

3.1.1 Learning Materials

The Arts and Culture learning process, particularly vocal arts, at SMPN 3 Kutorejo is implemented using the Problem-Based Learning model. This model is implemented as an effort to enhance students' activeness, creativity, and critical thinking skills in understanding and practicing vocal arts. Prior to the learning process, teachers first develop learning objectives, which are systematically outlined in teaching modules. Next, teachers determine learning materials that are appropriate to the students' characteristics and support the achievement of these objectives.

According to Ms. Christina Martuti, S.Pd., the Arts and Culture teacher at SMPN 3 Kutorejo, the vocal arts material taught to ninth-grade students using the Problem-Based Learning model is "Basic Vocal Techniques and Song Interpretation." In this material, students are encouraged to identify various vocal problems that frequently arise in singing practice, such as articulation, breathing, intonation, and expression in singing. Through this problem-based approach, students are not only taught theory but also trained to analyze vocal problems, formulate solutions, and present their findings in the form of individual or group vocal performances.

The implementation of this model encourages students to be more active in the learning process because they are faced with real-life situations that require collaborative problem-solving. This way, vocal arts learning is not merely a process of acquiring knowledge, but also a process of exploration, discussion, and the development of critical thinking skills and students' overall musical abilities.

The selection of each component of the vocal arts material in Problem-Based Learning (PBM) in grade 9F of SMPN 3 Kutorejo was based on its pedagogical value and relevance to the students. Diaphragmatic breathing was chosen because the foundation of vocal stability lies in upright posture and diaphragmatic muscle activation. With a module of posture images and step-by-step guidance, this material is simplified for easy understanding and retention by students.
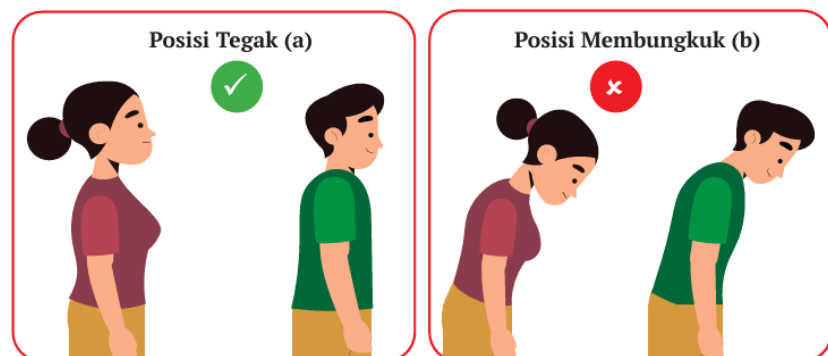

Figure 1 Illustration of the correct singing position
(Documentation: Doejan Grada Hafizh 2024)

Vowel formation and placement were the next focus, as a common problem was that the voice sounded 'strangled' or 'too soft'; therefore, the teacher created a simple resonance scheme (mouth–nasal cavity–chest) that students could follow in the form of visual guide cards. Articulation, pronunciation, and musical expression were chosen to address the problem of lyric clarity and song appreciation, and the consonant exercises "ta ka di mi" and the teacher's video examples were repeated, allowing students to practice them in small groups.
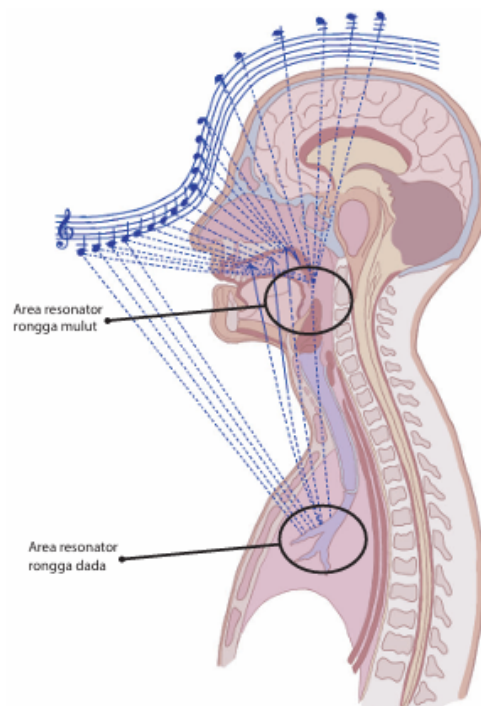
Figure 2 Illustration of Voice Placement Based on Pitch
(Documentation: Doejan Grada Hafizh 2024)

Finally, the exploration of vocal technique across various genres (pop, light rock, and folk songs) was integrated through problem-solving worksheets: each group identified technical challenges in a particular genre and then presented their solutions to the exercises.

In addition to the four core components mentioned above, the teacher added the song "Pelajar Pancasila" as a case study for the teaching and learning process. The lyrics, which convey national values and a spirit of learning, are relevant for junior high school students, while also challenging them to apply breathing techniques, placement, articulation, and expression within a single breath. To facilitate this, the teacher simplified the melody and lyrics into numerical notation, allowing students to memorize more quickly and focus on vocal technique.

Based on student observations and reflections, the selection and adaptation of this material with visual modules, simple notation, group exercises, and case study songs ensured that students' vocal skills were acquired gradually and in accordance with their level of cognitive development and memory at the junior high school level.

3.1.1.1 Theoretical Learning Material
1. Understanding the concept of vocal art, types of vocal sounds, and basic vocal techniques.
2. Understanding expression in singing, along with ethics and attitudes in singing.
3. Understanding the elements of music in vocal arts.
4. Understanding how to sing selected songs.
3.1.1.2 Practical Learning Materials
1. Vocal breathing exercises, articulation and diction, intonation, and vocal resonance.
2. Song appreciation exercises.
3. Individual and group singing exercises.

3.1.2 Material Sources
The vocal arts learning materials taught by the 9F class teachers at SMPN 3 Kutorejo are sourced from the 9th grade arts and culture textbook, then PowerPoint presentations, and finally, from video learning materials.
3.1.2.1 Theoretical Learning Material Sources
1. Music Arts Teacher's Guidebook
2. Grade 9 Arts and Culture Book
3.1.2.2 Practical Learning Material Sources
1. Video Learning Materials from YouTube
2. Images and Photos of Vocal Arts Learning Materials
3. PowerPoint Presentations

3.1.3 Steps in the learning process for vocal arts and culture material for class 9F SMPN 3 Kutorejo using a problem-based learning model

Referring to Minister of Education and Culture Regulation No. 22 of 2016 concerning Process Standards, teachers determine the learning steps so that the learning process runs according to plan and students can easily understand each stage.
3.1.3.1 Student Orientation to the Problem
The initial step of the learning process begins with a formal opening. The teacher invites the class leader to lead the opening activity through greetings and a prayer, followed by checking student attendance. Once the classroom atmosphere is conducive, the teacher presents an authentic problem scenario directly related to the students' experiences, such as articulation challenges in the 9F class choir. The scenario is reinforced by showing a short video clip of a student's vocal performance from the previous meeting as a reflection. To stimulate students' curiosity and active engagement, the teacher asks critical, open-ended questions, such as: "Why do some notes still sound unclear?" or "How can we improve the quality of articulation so that all listeners can clearly grasp the lyrics?" These questions aim to lead students to think about real-life problems faced in vocal arts practice.
3.1.3.2 Formulating the Problem
After the problem orientation, students are directed to formulate more specific problems through group discussions. Based on responses to the previous trigger questions, each group formulates concrete questions that represent the main problems in vocal activities, such as "How to overcome shortness of breath when singing long phrases?" or "How to improve vocal resonance on high notes?" The results of these problem formulations are then written on flipchart paper and presented briefly by each group to the class. This activity aims to reach a mutual agreement on the focus of the problem to be addressed during the learning process.
3.1.3.3 Organizing Students for Learning
In this stage, the teacher divides students into heterogeneous groups of 4–5 students. Each group is tasked with breaking down the main problem into sub-problems, such as breathing technique, articulation, vocal resonance, and lyric interpretation. Each group is asked to appoint a leader and a note-taker to ensure smooth coordination and documentation of activities during the learning process. As an initial learning resource, the teacher directs students to read the "arts and culture book on vocal arts materials" which contains material on basic breathing and articulation techniques. This guide

helps students conduct initial explorations of the issues they have formulated and serves as a reference for developing problem-solving strategies.

3.1.3.4 Guiding Exploration and Discovery

The exploration and discovery phase takes place in the classroom or outdoors. In this activity, each group conducts various simple experiments to find solutions to the vocal problems they have formulated. These experiments include diaphragmatic breathing exercises and repetition of consonant and vowel pronunciations to practice articulation. Throughout the activity, the teacher actively circulates, providing formative feedback to each group and answering students' in-depth questions, such as correcting body posture while singing and correct breathing techniques. Groups are also asked to record any findings, obstacles, and reflections on the effectiveness of the techniques they have tried, ensuring a more structured and meaningful learning process.

3.1.3.5 Developing and Presenting Solutions

After going through the exploration process, each group begins developing solutions based on their findings. These solutions are then implemented in the form of vocal practice exams, designed to incorporate new vocal techniques such as improved breathing patterns or specific articulation exercises. The performances are assessed by peers using a simple rubric covering articulation clarity, pitch stability, and vocal expression. In addition, the teacher conducts a more thorough assessment using a comprehensive rubric, which covers vocal technical aspects, group collaboration skills, and creativity and effectiveness in solving vocal problems.

3.1.3.6 Analyzing and Evaluating the Process and Results

The final step of problem-based learning is a thorough reflection and evaluation of the learning process and results. Each group is asked to reflect on the PBL activity they participated in, including writing about what went well, any obstacles encountered, and lessons learned, both in terms of vocal technique and teamwork. The teacher facilitates open class discussions to gather collective feedback that can be used as recommendations for future learning practices. Formal evaluation is conducted through two approaches: theoretical and practical evaluation. Theoretical evaluation can take the form of oral or written tests that test students' understanding of concepts such as breathing, articulation, and the fundamentals of vocal management. Meanwhile, practical evaluation is conducted through a final vocal performance assessed using the same parameters, supplemented by a written report in the form of a "Vocal Technique Improvement Proposal" prepared by each group to document their solutions and reflections throughout the learning process.

3.1.3.6.1 Evaluation of Theoretical Learning

Evaluation of theoretical learning in the Arts and Culture subject of vocal arts in grade 9F of SMPN 3 Kutorejo was conducted to measure students' conceptual understanding of the material presented during the problem-based learning process. The evaluation results indicated that students were able to grasp basic concepts in vocal technique, such as breath management, articulation, resonance, and expression in singing. Students also demonstrated the ability to develop a basic framework for vocal performance, including developing proposals for improving vocal technique based on reflections on problems they encountered. Theoretical evaluation was carried out in several forms, including oral tests, written tests, and

individual and group assignment assessments. Oral tests were used to explore students' immediate understanding of the applied material, while written tests focused more on mastery of terminology, breathing concepts, and basic vocal technique theory. Furthermore, assessments of student assignments, such as creating reflective journals and designing vocal exercises, served as additional indicators to assess their overall understanding.

3.1.3.6.2 Practical Learning Evaluation

The practical learning evaluation in problem-based vocal arts learning in grade 9F of SMPN 3 Kutorejo focused on students' ability to apply vocal knowledge to real-life practice through individual and group vocal exercises and performances. The results of the practical evaluation showed that students were able to design, practice, and perform simple vocal performances based on solutions they discovered during the exploration process. In the process, students demonstrated skills in managing diaphragmatic breathing techniques, improving articulation, and enhancing feeling and expression when singing. The practical evaluation was conducted through mini-vocal performances by each group, which were assessed by the teacher and peers using an assessment rubric. The rubric covers aspects of articulation clarity, pitch stability, mastery of breathing techniques, group cohesion, and the ability to solve vocal problems that arise. Through this practical evaluation, it is seen that the problem-based learning model is able to encourage students to learn actively, reflectively, and collaboratively in improving their vocal skills.

3.2 Problem-Based Learning Outcomes of Arts and Culture Vocal Arts Material for Class 9F at SMPN 3 Kutorejo

In vocal arts lessons using a problem-based learning model, 9th-grade students at SMPN 3 Kutorejo demonstrated significant improvement. The process began with identifying vocal challenges, such as intonation, articulation, and breath control. They collaboratively developed solutions through a series of structured exercises. These exercises were then implemented in individual and group performances by 9th-grade students, where each student demonstrated and applied the improvements they had learned in vocal technique.

The arts and culture learning process, implemented using a problem-based learning model at SMPN 3 Kutorejo, has significantly improved the quality of classroom learning. This was reflected in an interview with one of the students, Rafi Dwi Saktian, a 9th-grade student at SMPN 3 Kutorejo. In the interview, Rafi revealed that the project-based learning approach not only makes the learning environment more engaging and interactive but also helps students understand the arts and culture material more deeply. Furthermore, direct involvement in art projects provides real-life experiences that strengthen conceptual understanding and enhance students' self-confidence and collaborative skills. Thus, the implementation of this model is considered capable of creating a more meaningful and effective learning environment.

"Problem-based vocal learning encourages me to think critically and find ways to overcome obstacles in singing and breathing independently, making practice more enjoyable and challenging." (interview with resource person Rafi Dwi Saktian, November 2, 2024)

3.2.1 Cognitive Domain

The cognitive domain of problem-based learning for vocal arts in grade 9F of SMPN 3 Kutorejo focuses on students' critical thinking, problem-solving, and understanding of basic vocal technique theory. At the C3 (applying) level, students are asked to apply the practice modules provided by the teacher in real-life situations to overcome vocal technique challenges, such as vowel articulation or breath regulation. The process begins with identifying vocal problems independently or in groups, then students select and adapt appropriate exercises from the module. For example, if a student experiences breath imbalance, they will use the measured breathing exercises listed in the module and record their results. Next, students create short practice notes detailing the steps they took and any changes they experienced in their vocal abilities. To evaluate achievement in this domain, the teacher administers simple essay tests on the vocal technique concepts being practiced, such as a brief explanation of the function of the diaphragm in singing, and assesses the accuracy and consistency of students' practice through direct classroom observation. Thus, students not only understand the theory but also become skilled at using appropriate vocal techniques in the context of problem-based learning.

3.2.2 Affective Domain

The affective domain in problem-based learning of vocal arts material in class 9F of SMPN 3 Kutorejo is closely related to students' attitudes, values, and social responsibilities during the learning process. In learning activities, students are not only required to understand the material, but also to demonstrate positive attitudes such as mutual respect, cooperation, and empathy for their group mates. This is seen when students actively discuss to find solutions to vocal technique problems they face, such as difficulties in articulation or breath control. During the discussion process, students are able to maintain good communication, provide opportunities to speak fairly, and accept input from friends with an open attitude. In addition, students demonstrate a high sense of responsibility by helping friends who are having difficulty implementing vocal exercises. They also help direct and guide their friends to better understand the exercises. This attitude shows that problem-based learning not only develops academic abilities but also shapes the character of students who are caring, responsible, and able to work together in group situations.

3.2.3 Psychomotor Domain

The psychomotor domain in problem-based learning of vocal arts material in class 9F of SMPN 3 Kutorejo includes practical skills demonstrated through students' ability to directly implement vocal techniques. At level P4 (skilled articulation), students are able to perform vocal exercises correctly, especially in terms of articulation and breath control. Students are seen being able to pronounce song lyrics clearly, maintain stable breathing while singing, and demonstrate mastery of the vocal techniques they have learned previously. In addition, students also begin to understand the importance of expression in singing songs. This is evident in how they adjust the dynamics of their voices, intonation, and facial expressions according to the content and character of the song being performed. This ability is evidence that problem-based learning is able to improve students' vocal skills comprehensively, not only in terms of technique, but also in aspects of musical expression.

3.3 Obstacles and Solutions from Teachers and Students in Learning Arts and Culture through Problem-Based Learning Models in Class 9F of SMPN 3 Kutorejo

In the implementation of Arts and Culture learning, particularly vocal arts material through the Problem-Based Learning (PBL) model, a number of obstacles were encountered by both teachers and students. These obstacles are certainly unavoidable, considering that the teaching and learning process involves the interaction of various student characters with varying interests and abilities. Therefore, it is important to identify the obstacles that arise and find appropriate solutions to ensure the learning process continues to run smoothly and achieves the desired goals. The obstacles that arise are classified into two groups: obstacles from the teacher and obstacles from the student.

3.3.1 Obstacles Faced by Teachers

Christina Martuti, an arts and culture teacher at SMPN 3 Kutorejo, shared several challenges during the vocal arts learning process using a problem-based approach. One of the main obstacles was the lack of interest among some students in vocal arts lessons. Because not all students are interested in singing, some appeared passive in participating in the learning process and even tended to be unenthusiastic when asked to practice vocals in front of the class.

3.3.1.1 Low Student Interest in Vocal Arts

Based on an interview with Christina Martuti, she explained:

"I noticed that some students were not yet interested in vocal arts lessons. They seemed unenthusiastic when asked to practice singing, and some even felt embarrassed or afraid of making mistakes in front of their peers. This sometimes spread to other students, making the class less lively." (interview, October 12, 2024)

3.3.1.2 Limited Supervision During Group Discussions

Problem-based learning encourages students to work in groups to solve given problems. However, this also presents challenges for teachers, as they must monitor multiple groups simultaneously, especially when they are developing vocal practice plans or trying out techniques they have learned. Teachers need to move from one group to another frequently to ensure the activities are running effectively.

3.3.2 Obstacles Faced by Students

Students in grade 9F at SMPN 3 Kutorejo also encountered several obstacles during the problem-based learning process for vocal arts. These obstacles arose in terms of motivation, technical skills, and group dynamics.

3.3.2.1 Lack of Self-Confidence

Most students felt a lack of confidence when asked to sing in front of the class. They feared ridicule or mistakes in their vocal technique, especially if they were not used to performing individually.

3.3.2.2 Difficulties with Basic Techniques

Many students lacked a strong foundation in vocal techniques, such as breath control, articulation, and expression. This made vocal practice quite challenging and required more time to achieve the desired results. One student in grade 9F stated:

"Vocal practice is sometimes difficult, especially when I'm asked to sing alone. I like the lessons, but I'm not yet good at controlling my breath or articulation, so I'm a bit nervous when performing." (interview, November 2, 2024)

3.3.2.3 Lack of Participation in Group Discussions

In group discussions, not all students actively contribute their opinions or participate equally. Some students tend to be passive, relying solely on more vocal or confident peers, resulting in a less than optimal problem-solving process.

3.3.3 Vocal Arts Learning Solutions

To overcome these various obstacles, teachers have attempted to implement several strategies to make learning more effective. One solution implemented by Mrs. Christina Martuti is to create a fun and varied learning environment so that students feel more comfortable participating in vocal arts lessons.

3.3.3.1 Building a Comfortable and Enjoyable Learning Atmosphere

To increase student enthusiasm, teachers take them to study outside the classroom, such as in a quiet, open school space, to provide a change of scenery and reduce nervousness during vocal practice. Teachers also provide video examples or demonstrate vocal techniques directly to help students understand visually and audibly.

"To prevent students from getting bored and to be more enthusiastic, I sometimes take them to practice in the schoolyard. The atmosphere is different, and they are more relaxed during practice. I also like to give them singing examples so they are not afraid of making mistakes." (interview, October 12, 2024)

3.3.3.2 Active Guidance and Positive Feedback

Teachers provide direct guidance to discussion groups and vocal practice sessions, taking turns. Furthermore, teachers consistently provide positive appreciation and feedback to build student confidence, especially for those who are still hesitant to perform.

With these solutions, the vocal arts learning process through problem-based learning becomes more lively and can gradually increase student participation and abilities.

3.4 Discussion for Problem-Based Learning of Arts and Culture Vocal Arts Material for Class 9F at SMPN 3 Kutorejo

The research results show that the Problem-Based Learning (PBL) model has proven effective in improving the quality of vocal arts learning in class 9F of SMPN 3 Kutorejo. This finding supports the theory that PBL can enhance students' critical thinking skills, independent learning, and collaborative skills in the context of arts learning.

In terms of the learning process, PBL provides students with opportunities to understand vocal challenges through direct experience. Problem-solving through vocal technique exploration leads to active and reflective learning, in line with the notion that PBL emphasizes contextual learning based on real-life experiences. The teacher's implementation of PBL syntax also aligns with the principles of the Independent Curriculum, particularly in strengthening the Pancasila Student Profile through creativity, collaboration, and independence.

In terms of learning outcomes, PBL has been shown to improve students' cognitive abilities, particularly in understanding the relationship between vocal technique theory and practice. The research findings also show improvements in the affective domain, such as self-confidence, empathy, and the ability to work together. This aligns with the literature stating that PBL emphasizes not only knowledge but also attitudes and social values. In the psychomotor

domain, students showed significant progress in mastering basic vocal techniques such as diaphragmatic breathing and articulation. This demonstrates that a problem-based approach can improve vocal skills in an integrated manner.

However, this study also identified several obstacles, such as low initial student interest, lack of self-confidence, and uneven group participation. These obstacles indicate that the success of PBL is heavily influenced by student readiness and the classroom management strategies implemented by teachers. Teachers' efforts to create a pleasant learning environment and provide positive feedback are crucial steps in overcoming these obstacles. This supports the view that the teacher's role as a facilitator is crucial to the success of PBL.

Thus, this study confirms that PBL is a relevant and effective approach for implementing vocal arts learning at the junior high school level. PBL not only improves the quality of learning but also fosters collaborative, confident, and problem-solving character in students. Despite certain obstacles, appropriate strategies can enhance the effectiveness of implementing this model in vocal arts learning.

4. KESIMPULAN

Based on the research results and discussions on the implementation of Problem-Based Learning (PBL) in the Arts and Culture subject of vocal arts for grade 9F at SMPN 3 Kutorejo, the following conclusions can be drawn:

Learning Process:
The Arts and Culture subject of vocal arts in grade 9F at SMPN 3 Kutorejo is implemented using a Problem-Based Learning (PBL) approach to enhance student engagement, creativity, and critical thinking skills. Through this model, students not only learn vocal theory but are also encouraged to identify, analyze, and solve real-life problems related to singing techniques, such as breathing, articulation, intonation, and expression.

The learning process is divided into several systematic stages, starting with problem orientation, problem formulation, group organization, exploration and discovery, solution development, and evaluation of theory and practice. Learning takes place interactively using various supporting media such as books, videos, images, and worksheets, and is facilitated by teachers as facilitators and guides.

The learning materials are structured with the cognitive development of junior high school students in mind and are complemented by visual modules and group practice. The song "Pelajar Pancasila" was used as a case study to integrate all the vocal techniques learned.

A comprehensive evaluation was conducted, encompassing both theoretical understanding and vocal practice skills, using a reflective and collaborative approach. The evaluation results showed that students were able to gradually improve their vocal skills and solve vocal problems through an active and meaningful learning process.

Overall, the application of the PBL model to vocal arts learning successfully created a participatory, contextual learning environment and encouraged the strengthening of the Pancasila Student Profile

dimensions, such as critical reasoning, creativity, independence, and mutual cooperation.

Learning Outcomes:

1. Effectiveness of the Problem-Based Learning Model

The application of PBL to basic vocal techniques and song interpretation successfully increased student active engagement in the learning process. Students were able to identify and formulate vocal problems (e.g., articulation, breathing, resonance, and expression), then develop and apply solutions through simple experiments and vocal practice performances. This process fostered a participatory, collaborative, and reflective learning environment.

2. Improvement in the Cognitive, Affective, and Psychomotor Domains

O Cognitive domain: Students demonstrate critical thinking and problem-solving skills by applying vocal technique concepts in real-life situations, as well as being able to compile reflective reports and answer essay tests on vocal theory.

O Affective domain: PBL encourages mutual respect, cooperation, empathy, and social responsibility among students during group discussions and collaborative practice.

O Psychomotor domain: Students skillfully apply diaphragmatic breathing, articulation, resonance, and vocal expression techniques in individual and group practice, as evidenced by increased clarity of lyrics, pitch stability, and depth of song appreciation.

3. Learning Obstacles and Solutions

Obstacles include low interest among some students, limited teacher supervision during group discussions, lack of student confidence, and variations in mastery of basic techniques. Teachers address these issues by creating a pleasant learning environment (open-air practice, video demonstrations), providing direct guidance, and consistent positive feedback. 4. Relevance to the Independent Curriculum

Learning vocal arts through PBL aligns with the principles of Strengthening the Pancasila Student Profile, particularly the dimensions of mutual cooperation, critical thinking, and creativity. This is because students actively build shared understanding, find real-world solutions, and express their findings artistically.

AUTHOR CONTRIBUTION

This research was conducted by Doejan Grada Hafizh as the lead author. The entire research process, from proposal development and data collection through observation and interviews, data analysis, and the preparation of the research report, was carried out entirely by the author. And Agus Suwahyono served as the supervisor, providing methodological guidance, academic corrections, and guidance in the preparation of the research manuscript, but was not involved in the data collection or analysis process.

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