Improving The Ability of Vocal Group Through POMP2E Model Development for Students of Junior High School

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Abstract

This research aims to develop a POMP2E learning model that is valid/feasible, practical, and effective for use in learning the art of music in junior high schools. The type of research is Research & Development using the research and development procedures of the Gall, Gall & Borg model which was adapted from the Dick, Carey & Carey model. The research sample consisted of class IX students of SMP Negeri 1 Dolok Masihul as a group to test product practicality through one-on-one trials, small group trials (limited) and large group trials (field). The research sample consisted of Class IX students of SMP Negeri 1 Dolok Masihul tested product effectiveness through small group and field group tests. The data analysis techniques used were qualitative and quantitative descriptive data analysis techniques as well as experimental data analysis. Qualitative and quantitative data analysis is used to analyze model development data, namely testing instrument validity and product validity. Experimental data analysis is used for the validity and reliability of the tests used and the t test to see statistical differences in results between the experimental class and the control class. The results of testing the feasibility of supporting equipment instruments for the POMP2E model obtained a calculated average of 0.853, including the very feasible category. The results of the feasibility test for all POMPO2E model supporting device products obtained a calculated average of 0.874, including the category of very suitable for use. The results of the practicality test of using the POMP2E learning model and all supporting tools developed according to teacher responses obtained an average score of 89.32% in the very practical category, according to practicality according to students the average score was 88.56% in the very practical category. The results of the effectiveness test on the use of all POMP2E learning model products which were developed through three testing aspects, namely the cognitive, affective and psychomotor aspects, showed that the results of the POMP2E learning model's cognitive aspect effectiveness test were obtained N-Gain=0.73, including the high category with the interpretation of the category being quite effective in use. The results of testing the effectiveness of the affective aspect of the POMP2E learning model obtained N-Gain=0.84, which is in the high category with the interpretation that it is effectively used. The results of testing the effectiveness of the POMP2E learning model for psychomotor aspects obtained N-Gain=0.76, which is in the high category with the interpretation that it is effective to use. Thus, it can be concluded that the POMP2E learning model developed is effective in improving the vocal abilities of groups of junior high school students.

Keywords: POMP2E, Group Vocal Ability, Learning Model

INTRODUCTION

Offering an aesthetic experience that encompasses conception, appreciation, creation, and connection is one way to teach about the arts and culture. These four points align with the Core Competencies in the 2013 Curriculum, which state that because of the arts and culture's distinctiveness, significance, and utility, they are vital to students' growth and needs. The purpose and goals of arts and culture education in junior high schools are determined by the curriculum and are intended to foster the development of students' appreciation for various artistic mediums as well as their attitudes, abilities, and fundamental skills (Panca & Abdul, 2014).

The musical arts aspect places more emphasis on providing musical arts experiences by using musical elements. Musical arts material includes the ability to conceive, appreciate and create instrumental and vocal works of art. Vocal ability is the ability to sing. Singing is a means for children to express their thoughts and feelings through notes and words. Singing is one part of musical activities that is important and dominant to be carried out in schools because singing produces positive emotions (joy) and reduces negative emotions (stress) so that singing activities are always loved by students (Sinaga, 2018:49). In general, vocal presentations are divided into two, namely singing individually (solo) and singing in groups. Singing in groups is very beneficial because it can

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improve social relationships, reduce feelings of isolation and be transformative for individuals and community mobilization.

According to preliminary observations, there was no improvisation or ornamentation and the students' singing did not follow the melody, rhythm, or music of the song being sung. Singing incorrectly is the cause of this, not learning song arrangement techniques. Theoretically, pupils are still not grasping the principles and practices of appropriate singing. Group vocal material is therefore difficult since students need to theoretically understand group vocals, vocal techniques, and composition techniques before they can practice singing group vocals correctly.

Aside from that, the issue with time management was encountered. Three hours of instruction per week are allotted for subjects related to arts and culture. Since there are four arts that must be taught in a semester—fine arts, music, dance, and theater arts—this time allotment is insufficient given the amount of material covered. Although the group vocal material was supposed to be covered in two meetings, the students were still struggling to fully comprehend the material because it was difficult and time-consuming. This research is limited to students' vocal group abilities because the arts and culture material is dense, and the vocal group material is complex and can represent assessments for general arts.

According to a preliminary study conducted on student learning outcomes at SMP Negeri 1 Dolok Masihul and SMP Negeri 3 Dolok Masihul between 2015 and 2017, students did not meet the ideal 100 percent maximum average score in both cognitive and affective domains and received low grades, and psychomotor. The tilapia yield is in the average range of 74.30 to 77.80. The achievement of this value is still less than optimal, requiring improvement or improvement in certain achievements or behavior. It is important to identify the causes of such low grades and provide appropriate efforts to help students improve their academic achievement. The identification's findings revealed that, while art and culture instructors at SMP Negeri 1 and SMP Negeri 3 Dolok Masihul have thus far employed scientifically based learning models, they also frequently employ lectures since they are simple to plan, execute, and master in the classroom.

Some of the findings related to the low interest in studying arts and culture are the lack of interest of students because they think that arts education is an unimportant subject because arts subjects are not in the National Examination. The family's economic situation does not support art learning, namely buying musical instruments or practicing art practices. The school environment influences student learning outcomes, one of which is the teacher's teaching methods, such as teachers not using media in the learning process, teachers being less creative in preparing and using varied and fun learning models.

Teachers must pay attention to and design a learning model that requires knowledge to know the characteristics of students which are adapted to the representation of the material or characteristics of the subject to be taught so that it can help students achieve the expected competencies. Teachers must be more creative in designing learning, especially by choosing or designing appropriate learning models so that they are better able to create an effective and efficient learning atmosphere.

A learning model is a pattern or reference used to teach students so that arts and culture learning objectives can be achieved optimally. The learning model cannot be separated from the learning and learning components. These components are the main requirements for the learning and learning process to take place so that the learning process runs well and effectively. The development of a model that is suitable for use in achieving ideal learning objectives is Accelerated Learning (AL). The 2013 curriculum's learning objectives are a great fit for the accelerated learning concepts. The 2013 curriculum places a strong emphasis on how students become active learners and how teachers adopt a facilitator role. A teacher or facilitator needs to comprehend and apply the accelerated learning model's principles in order to effectively implement it (Meier, 2000: 122).

Accelerated learning features include using multiple intelligences; being whole brain (left/right brain processing); mental/emotional; being active (hearing, seeing, saying, and doing); being learner-centered; being collaborative (a learning community); being varied (for all learning styles); and being surrounded by light, sound, temperature, and peer. In order to master the lessons taught by the teacher more quickly, students can participate in accelerated learning by doing homework at home, comprehending the material that will be studied
next, asking questions, answering them, and explaining their answers, interacting with others, and having
discussions with friends. All of these activities will help students' critical thinking and communication skills.
(Rose, 2002:152) and (Kemas Abdurrahman, 2012) (Bobbi DePorter, 2000:99)

The results of research from Tanjung, S.P & Permana (2020) entitled "Development of Mathematics Learning
Tools Based on Coaching Technique to Create Accelerated Learning Revolution" show that 15% of students
have not obtained an average score above the KKM (Maximum Completeness Criteria). The results of research
from Khaliq, A., & Ahmed (2019) entitled "A Comparative Study to Analyze the Efficiency of Accelerated
Learning to Facilitate the Understanding of English Language at Secondary Level" stated that learning
outcomes experienced little change before and after accelerated learning. Furthermore, research from
in Business English Learning for Undergraduate Programs" shows that accelerated learning increases the value
of English language learning.

In light of the problem's background, it is crucial that educators use their creativity to apply the traits of this
field of study by putting in place the right learning models in order to help students become engaged,
autonomous, accountable, creative, imaginative, productive, and responsive. The learning model developed is
the POMP2E model. The development of the POMP2E learning model views the knowledge gained by
students through discovery learning as lasting and having a better transfer effect because it can improve
reasoning, the ability to think freely, train independence and skills to be more active during learning.

Methodology

The type of research is Research & Development using research and development procedures referring to the
Gall, Gall & Borg development model which was adapted from the Dick, Carey & Carey model. Steps for
development activities carried out:

Step 1: Research and Information Gathering

Based on initial research and some information that has been obtained, in this step several types of products
are determined, namely Model Books (BM), Teacher's Manuals (BPG), Student Books (BS), Textbooks, Student
Worksheets (LKPD), and a student group vocal ability test instrument.

Step 2: Design the Initial Product Draft

Designing an initial product draft against the model is by determining several activities, namely:

1) Determine the objectives achieved in developing the POMP2E learning model

2) Ascertain who is using the POMP2E model; in this instance, class IX students at SMP Negeri 1 and SMP
Negeri 3 Dolok Masihul are using the POMP2E learning model.

3) Creating research instrument grids that are customized to meet the requirements of students, teachers,
linguists, and material experts.

Step 3: Initial Product Development

Initial product development is preparing supporting tools for POMP2E model development consisting of:

1) POMP2E Learning Model

2) POMP2E Learning Model Book

3) Group Vocal Textbook

4) Teacher's Guidebook

5) Student Handbook

6) Student Worksheet (LKPD)

7) Group Vocal Ability Test Instrument
Step 4: Initial Draft Test

Carrying out initial draft trials, namely conducting an assessment of the POMP2E product or learning tool being developed, namely:

1) Validation of material experts, design experts and language experts on the POMP2Em model product being developed

2) Carrying out trials on students consisting of one-on-one tests on 3 students, small group tests of 6 to 10 students.

Step 5: Limited Field Test

Ten students completed the limited field test. After the POMP2E model was improved based on recommendations or input from material experts, language experts, and design experts, a limited number of field tests were conducted.

Step 6: Wide Scale Field Test

A wide-scale field test was carried out on 30 students. A wide-scale field evaluation involves testing the vocal abilities of a group of students in both cognitive, affective and psychomotor aspects. The results of wide-scale field tests are proof that the product and other devices and the POMP2E model developed are valid, practical and effective in improving the vocal abilities of groups of students.

RESULTS AND DISCUSSION

Product Feasibility Test Results

Assessment or measurement of POMP2E model development products consisting of the POMP2E learning model, POMP2E learning model books, lesson plans, teacher manuals, student manuals, LKPD, textbooks and group vocal ability test instruments. Four (four) experts—two design experts, one language expert, and one material expert—performed the validation and feasibility test. A summary of the results of validation/measurement of the suitability of the prototype (Draft) for the POMP2E model development product consisting of the POMP2E learning model, POMP2E learning model book, lesson plan, teacher's manual, student's manual, LKPD, textbook and group vocal ability test instrument is presented below:

<table>
<thead>
<tr>
<th>No</th>
<th>Expert Validation</th>
<th>Average</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Materials Expert</td>
<td>0.878</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>2.</td>
<td>Linguist</td>
<td>0.884</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>3.</td>
<td>Design Expert</td>
<td>0.855</td>
<td>Very Worthy</td>
</tr>
<tr>
<td></td>
<td>Total Average</td>
<td>0.872</td>
<td>Very Worthy</td>
</tr>
</tbody>
</table>

Based on Table 1's assessment or measurement of the POMP2E model development products—which include textbooks, LKPD, lesson plans, teacher and student manuals, the POMP2E learning model, and group vocal ability test instruments—validation/feasibility test results material experts mean Va=0.878 in the very feasible category, validation/feasibility test results for language experts mean Va=0.884 in the very feasible category, and validation/feasibility test results for design experts mean Va=0.855 in the very feasible category. The overall mean of expert validation/feasibility test results was 0.872 in the very feasible category. Conclusion: The POMP2E model development products, which include the learning model, books, lesson plans, teacher and student manuals, LKPD, textbooks, and group vocal ability test instruments, are very feasible based on the results of expert assessments or measurements, for use in junior high school choir class group vocal exercises.

Product Practicality Test Results

Practical trials were carried out on 30 students and 3 art teachers, especially vocal groups at SMP Negeri 1 and SMP Negeri 3 Dolok Masihul Serdang Bedagai. The purpose of the large group test is to obtain input on the feasibility of the POMP2E learning model and supporting products for the purposes of implementing learning.
Table 2. Summary of Practicality of Use Test Results

<table>
<thead>
<tr>
<th>Assessment Aspects</th>
<th>Average TCR</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Learning Design</td>
<td>89.63</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>2. Lesson Plan and Evaluation Tools</td>
<td>90.33</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>3. Vocal Group Textbook</td>
<td>89.00</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>4. Teacher's Manual</td>
<td>88.33</td>
<td>Very Worthy</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>89.32</strong></td>
<td>Very Worthy</td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Learning Design</td>
<td>88.22</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>2. Vocal Group Textbook</td>
<td>88.70</td>
<td>Very Worthy</td>
</tr>
<tr>
<td>3. Student Handbook</td>
<td>88.75</td>
<td>Very Worthy</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>88.56</strong></td>
<td>Very Worthy</td>
</tr>
</tbody>
</table>

Based on Table 2 regarding the results of trials on the practicality of using the POMP2E product being developed, it can be stated that the results of the teacher assessment/response were 89.32% in the very suitable for use category, and the average student response was 88.56 in the very suitable for use category. In addition, the POMP2E learning model practicality test results, along with all supporting materials created based on the teacher's responses, were translated into percentages and received an average score of 89.32% in the very practical category. Students' practicality received an average score of 88.56% in the category of very practicality.

**Product Effectiveness Test Results**

The results of testing the effectiveness of using all POMP2E learning model products developed were carried out using three aspects, namely testing the cognitive, appetitive and psychomotor aspects. Each effectiveness test result is presented as follows:

**Cognitive Aspect Test Results**

The results of testing the effectiveness of the POMP2E learning model for cognitive aspects obtained $N$-Gain=0.73, including the high category with the interpretation of the category being quite effective for use. A visualization of the statistical summary of cognitive aspect effectiveness tests is presented in Table 3 below.

**Table 3 Effectiveness Test Statistics**

<table>
<thead>
<tr>
<th>Paired Samples Test</th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error</td>
<td>Mean</td>
<td>93% Confidence Interval of the Difference</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
<td>Upper</td>
<td>t</td>
</tr>
<tr>
<td>Pair 1</td>
<td>43.167</td>
<td>7.008</td>
<td>1.279</td>
<td>40.550</td>
<td>45.783</td>
<td>33.739</td>
<td>29</td>
</tr>
</tbody>
</table>

Table 3 indicates that the computed results at the 0.000 level of significance are less significant than the 0.05 level of significance (0.000<0.05). This suggests that there is a difference between the vocal cognitive abilities of the student groups pre- and post-learning when the POMP2E learning model product is used to implement in-class learning. VIII SMP Negeri 1 Dolok Masihul, Regency of Serdang Bedagai.

a) **Affective Aspect Test Results**

The results of testing the effectiveness of the affective aspect of the POMP2E learning model obtained $N$-Gain=0.84, which is in the high category with the interpretation that it is effectively used. A visualization of the statistical summary of the affective aspect effectiveness test is presented in Table 4 below.

**Table 4. Effectiveness Test Statistics**
Improving The Ability of Vocal Group Through POMP2E Model Development for Students of Junior High School

It can be inferred from Table 4 that there is a difference in the vocal affective abilities of the student groups before and after learning using the POMP2E learning model product in the implementation of in-class student learning. The calculated results of the significance level of 0.000 are smaller than the significance of 0.05 (0.000<0.05). VIII SMP Negeri 1 Dolok Masihul, Regency of Serdang Bedagai.

b) Psychomotor Aspect Test Results

The results of testing the effectiveness of the POMP2E learning model for psychomotor aspects obtained N-Gain=0.76, which is in the high category with the interpretation that it is effective to use. A visualization of the statistical summary of the effectiveness test for psychomotor aspects is presented in Table 5 below.

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Paired Samples Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Lower</td>
<td>Upper</td>
</tr>
<tr>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Pair</td>
<td>Posts Afectif - Posts Afectif</td>
</tr>
</tbody>
</table>

The results of the feasibility test for all POMPO2E model supporting device products obtained a calculated average of 0.874, including the category of very suitable for use. Teachers are capable of producing a product to aid in the learning process because learning models are necessary for effective learning. The learning process must incorporate the use of technology to create learning models, which are subsequently modified in accordance with the learning process plan. The learning model developed must also meet valid criteria so that it can optimize student knowledge.

The results of Table 5 indicate that the vocal psychomotor abilities of the class IX students differ from the pre- and post-learning periods when using the POMP2E learning model product. This is because the calculated results at the significance level of 0.000 are smaller than the significance of 0.05 (0.000<0.05). SMP Negeri 1 Dolok Masihul, Regency of Serdang Bedagai.

The results of the feasibility test for all POMPO2E model supporting device products obtained a calculated average of 0.874, including the category of very suitable for use. Teachers are capable of producing a product to aid in the learning process because learning models are necessary for effective learning. The learning process must incorporate the use of technology to create learning models, which are subsequently modified in accordance with the learning process plan. The learning model developed must also meet valid criteria so that it can optimize student knowledge.

A variety of foundational materials that are already in existence and materials that will be created in order to accomplish the goals are referred to as the development of a learning model. Tests or performance evaluations...
for the product must be included with all instructional materials. Additionally, instructional materials must include a manual that demonstrates to teachers how to apply the material in the classroom.

Prastowo (2016: 17) noted that there are different kinds of learning devices, some of which are printed and some of which are not. A common assortment of printed teaching resources are student worksheets, books, modules, handouts, and brochures. The purpose of handouts is to assist students by offering informational support or educational resources. Books that have been subjected to a written analysis of the curriculum are considered teaching materials. A textbook serves as an example since it is written in accordance with the relevant curriculum.

The practicality test results using the POMP2E learning model and all supporting tools developed based on teacher responses yielded an average score of 89.32% for the very practical category. Students' average score in the very practical category was 88.56%. One of the factors influencing student learning success includes the teacher's ability to implement learning. Teachers are an important factor in the successful implementation of learning. During the implementation of learning, the teacher plays an important role in organizing learning, especially in developing appropriate learning models so that they can activate students during the implementation of learning in class, especially in the implementation of learning so that it will support the success and improvement of student learning outcomes.

One method of planning how to implement learning is through the use of learning models. In order to facilitate interaction between teachers and students or between students, efforts will be made to create a climate and services that are responsive to the abilities, potential, interests, talents, and needs of diverse students through the use of the learning model. A learning model typically consists of relatively fixed and definite stages or steps (syntax) for presenting lesson content in a sequential manner. Arends (2015:24) defines a learning model as an all-encompassing plan or pattern that assists students in acquiring specific knowledge, attitudes, or skills.

According to Mariskhantari et al., 2022) stated that the learning model provides a framework and direction for teachers to teach. The term "learning model" refers to a broad and all-encompassing approach to a learning model; learning models can be categorized according to their learning objectives, syntax (sequence patterns), and the type of learning environment; a learning model's syntax is a pattern.

The results of the effectiveness test on the use of all POMP2E learning model products which were developed through three testing aspects, namely the cognitive, affective and psychomotor aspects, showed that the results of the POMP2E learning model's cognitive aspect effectiveness test were obtained N-Gain=0.73, including the high category with the interpretation of the category being quite effective in use. The results of testing the effectiveness of the affective aspect of the POMP2E learning model obtained N-Gain=0.84, which is in the high category with the interpretation that it is effectively used. The results of testing the effectiveness of the POMP2E learning model for psychomotor aspects obtained N-Gain=0.76, which is in the high category with the interpretation that it is effective to use. Thus, it can be concluded that the POMP2E learning model developed is effective in improving the vocal abilities of groups of junior high school students.

CONCLUSION

Based on the research results on the development of the POMP2E learning model, the following conclusions can be expressed:

The POMP2E learning model is a collaborative integration of four active learning models which can be used as a learning model for arts and culture subjects including aspects of musical arts. The POMP2E learning model was developed based on learning model development components consisting of syntax, social systems, reaction principles, support systems, and instructional impact and accompaniment.

There were differences in the cognitive, affective, and psychomotor abilities of the vocal group of students before and after learning with the POMP2E learning model product in vocal group learning for junior high school students, according to the results of the product effectiveness test using the students' cognitive, affective, and psychomotor abilities. The N-Gain price was in the high category with a percentage of quite effective and effective.
REFERENCES


