LEARNING MODEL DEVELOPMENTACCELERATED LEARNING BASED ON MULTIPLE INTELLIGENCES TO IMPROVE THE VOCAL ABILITY OF MIDDLE SCHOOL STUDENT GROUPS

VENNY RIBKA WISUDARNI S[1], HARUN SITOMPUL[2], ABD. HASSAN SARAGIH[3]
[1] Educational Technology Program, Medan State University, William Iskandar Pasar V
Indonesiavennyribka85@gmail.com https://orcid.org/0009-0004-9083-4187
[2]Civil Engineering Education, Engineering Faculty, Medan State University, William Iskandar Pasar V
Indonesiaprof_runsit@yahoo.co.id1 https://orcid.org/0000-0003-4322-5317
[3]Educational Technology Program, Medan State University, William Iskandar Pasar V Indonesia
ahasansaragih@gmail.com; https://orcid.org/0000-0001-9533-4422

Abstract
This research is a development research which generally aims to develop a learning model accelerated learning based on multiple intelligences in learning the art of music for junior high school students. The type of research used isResearch & Development. This research method is used to produce or perfect certain products by first testing, especially the effectiveness of these products. The sample studied in this study was class IX students of SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency as field trial subjects for the broader use stage of the product being developed. Test the feasibility of the product by calculating the summary of validation results or measuring the eligibility (validation) of the prototype (draft) for the SGPOMP2E learning model as a whole, the average calculated value is 0.891, this value is greater than the Aiken's V category (0.891> 0.60). Based on these calculations, it proves that the calculated results of expert validation are greater when compared to the provisions of Aiken's V category related to the development of the SGPOMP2E model, which consists of model rationale, development objectives, syntax, social system, reaction principle, instructional impact, accompaniment impact,stimulation, goals, preparation, organize, monitoring, practice, performance and evaluation. test the effectiveness of the product with a small group test of 10 students in grade IX at SMP Negeri 3 Dolok Masihul Serdang Bedagai Regency for the 2020/2021 academic year, obtaining an N-Gain price of 0.72 in the high category with a percentage of 72.00% and the results of calculating the significance level 0.000 smaller than significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of groups of students before and after learning using learning model products accelerated learning based on multiple intelligences in group vocal learning in class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year. test the effectiveness of the product by field group testing of 30 students in class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency for the 2020/2021 academic year, obtaining an N-Gain price of 0.73 in the high category with a percentage of 73.00% and the results of calculating the significance level 0.000 smaller than significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of groups of students before and after learning using learning model products accelerated learning based on multiple intelligences in group vocal learning in class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year.

***Keyword**: Accelerated Learning, Based on multiple intelligences, to improve the vocal abilities of junior high school student groups*

INTRODUCTION

This national education goal is a long-term goal to be achieved and is based on the state philosophy, namely Pancasila. Institutional goals are goals to be achieved by every school or educational institution where the general goals are in the form of graduate competencies at each level such as competency standards for basic, secondary, vocational and higher education (Falah, n.d.; Rohani, 2017; Sartika, 2019). Cultural arts learning is carried out by providing an aesthetic experience that includes conception, appreciation, creation and connection. These four things are aligned with the

Core Competencies in the 2013 Curriculum (Mustafa & Dwiyogo, 2020), so that cultural arts play an important role in the development and needs of students because of their uniqueness, meaning, and usefulness. (Ahmad, 2016). Based on the curriculum, the functions and objectives of arts and culture education in junior high schools are designed to be able to develop basic attitudes, abilities and skills, creativity, a sense of beauty, and the development of student appreciation (Dewi & Verawati, 2021; Supriadi et al., 2022).Art assessment in practice is an integral part of the three domains of affective, psychomotor, cognitive, which are arranged in activities of expression, creation and appreciation.The scope of cultural arts subjects includes aspects of fine arts, music, dance and theater arts. This study focused on aspects of the art of music.

The artistic aspects of music in learning arts and culture emphasize more on providing musical art experiences by using musical elements. Some of the results of research that provide information to us about the importance of art education, especially music for child development, are as follows:(Julia et al., 2020), (Komara et al., 2013; Michael Sugianto Panggabean, 2021; Ratna Luhung Strinariswari, 2015)the goals of music arts include the following: (1) music education/art education, facilitating children's development in language and reading speed, (2) musical/artistic activities are very valuable for children's experiences in expression and others, (3) musical activities / art helps develop positive attitudes towards school and reduces absenteeism at school, (4) involvement in musical / artistic activities directly enhances the development of creativity, and (5) music education / arts education facilitates social development, adjustment, and intellectual development . So, the competency of junior high school music art is that students have the ability to master vocals, play musical instruments and appreciate musical works. Music art material includes the ability to conceive, appreciate and create musical and vocal works of art.

Group vocals are part of the art of music in junior high schools (SMP). The presentation of group vocals is still in demand by the public with the holding of vocal group festivals for middle school, high school and university students. An important characteristic of cultural arts subjects in the 2013 Curriculum emphasizes creativity. Group vocal learning is learning that can increase students' musical creativity. In a vocal group, each student is required to be creative and think fast. Vocal groups demand creativity in arranging songs, a deep understanding of singing techniques, the ability to implement group singing procedures and the formation of values of cooperation, patience and responsibility within the group so that the students concerned gain new knowledge and experience. Therefore, the form of the group's vocal activity should be digging experience and experiment-exploration. Art material is very dense and complex, but based on the initial survey the material that is very difficult for students to master compared to other art materials is group vocal material because group vocal material is required to be highly creative. So, group vocals are a very important part of art material in realizing the description of the characteristics of arts and culture subjects or in other words the vocal abilities of student groups can be a big picture of students' abilities in arts and culture.

Based on initial observations, students do not sing according to the rhythm of the song, melody, music from the song being sung, there is no improvisation/ornamentation. This is due to the wrong singing technique, not mastering song arrangement techniques. In theory, students still do not understand the concepts and procedures for singing properly. Therefore, group vocal material is complex material because students must first be able to master the concept of group vocals, vocal techniques, theoretically arranging techniques then be able to practice group vocal singing correctly. In addition, the constraints experienced were regarding time allocation. The time allocation for cultural arts subjects is three hours in one week, this time allocation is inadequate considering that the material taught is quite a lot because there are four arts that must be taught for one semester namely visual arts, music arts, dance arts and theater arts. The time allocation for group vocal material was held in two meetings but the vocal group material was not completely understood by students because the material was complex material and required a lot of time. Considering that art and culture material is very dense and group vocal material is complex and can represent art assessments in general, this research is focused on and limited to student vocal group abilities.

Broadly speaking, the goals of art education are divided into three, namely: (1) fostering and developing student creativity and sensitivity, (2) supporting the formation and personal development of students as a whole, (3) providing the widest possible opportunities for creative expression (Kratus, 2010). The goals set for learning art are not as easy as those obtained in the learning process. In fact, the ability of students to master art is relatively low. This can be seen from the learning outcomes in the list of scores for the last five years in the semester exams for all grade IX at Dolok Masihul 1 Public Middle School and Dolok Masihul 3 Middle School in Table 1 below.

Table 1. List of Grades for School Exams T.A 2013/2014 - 2017/2018
(Average Score of Students for Cultural Arts Subject)

No	School year	SMPN 1 Dolok Masihul	SMPN 3 Dolok Masihul
		Average Value	Average Value
1.	2013/2104	77,65	76,00
2.	2014/2015	77,80	74,50
3.	2015/2016	77,56	76,43
4.	2016/2017	77,39	73,20
5.	2017/2018	77,13	74,30

Based on the learning outcomes of students at Dolok Masihul 1 Public Middle School and Dolok Masihul 3 Public Middle School in 2015, 2016 and 2017 it was found that students obtained low scores and had not achieved the maximum average score (ideal 100) both in cognitive/psychomotor aspects (File List of School Exam Scores is attached). So far, arts and culture teachers at Dolok Masihul 1 Public Middle School and Dolok Masihul 3 Public Middle School have used scientific-based learning models, but teachers are more likely to use conventional learning models, namely lectures for the reason that they are easy to prepare and implement and easy to master in class.

Based on the initial survey at Dolok Masihul 1 Public Middle School, it was found that students were less interested in learning arts and culture due to (1) a lack of interest, some students thought that art education was an unimportant subject (complementary subject), because art subjects were not in the National Examination, (2) most of the family environmental factors such as family economic conditions and home atmosphere. For example, one way for children to have progress in learning art is to buy musical instruments or practice art in groups outside of school hours. However, students cannot afford to buy musical instruments and they do not have time to study together because some of them help their parents earn a living and lack parental support, (3) school environmental factors affect student learning outcomes, one of which is the teacher's teaching methods such as the teacher's lack of use media in the learning process, teachers are less creative in preparing Learning Implementation Plans (RPP) and teachers do not use varied and fun learning models.

The teacher must be wise in determining an appropriate model which can create conducive classroom situations and conditions so that the teaching and learning process can take place in accordance with the expected goals. The 2013 Revised curriculum states that teachers have the autonomy to apply various learning models according to basic competency characteristics, subject matter, and student characteristics based on activity, creativity, inspiration, fun and initiative.

The development of an appropriate model is used in order to achieve the ideal learning objectives *Accelerated Learning* (AL). Principles *accelerated learning* very suitable to be applied to learning the 2013 curriculum. The main demand in the 2013 curriculum is how a teacher changes the role of a facilitator and students turn into active learners. To be able to apply the model *accelerated learning well* then a teacher or facilitator must understand and apply the seven principles accelerated *learning* namely: learning involves the whole mind and body, learning is creating, not consuming, cooperation helps the learning process, learning takes place at many levels simultaneously, learning comes from doing the work itself, positive emotions really help learning, brain-images absorb information directly and automatic (Deccia Citra, 2016). *Accelerated Learning* (AL) uses the concept of humanistic learning theory, iethe process of humanizing humans, where an individual is expected to be able to actualize himself means that humans can explore their own abilities to be applied in the environment.

Characteristics*accelerated learning* consists of eight, namely: (1) intact brain (left/right brain processing), (2) mental/emotional, (3) active (listening, seeing, saying and doing), (4) learner-centered, (5) collaborative (a learning community), (6) variety (for all learning styles), (7) use *Multiple Intelligences* (multiple intelligence), and (8) environment (light, sound, temperature, peripherals). In learning accelerated *learning* students can be actively involved in order to achieve speed in mastering the lessons taught by the teacher through giving assignments at home and understanding the subject matter to be studied next, providing opportunities to ask questions, answer questions and explain each answer given, interaction, discussion with friends, so that the level of reasoning and communication skills of students can be improved. Model *accelerated learning is suitable* for use in group vocal learning because the material is quite dense, so if you use a model accelerated *learning* then accelerate students to understand the material as well as the model accelerated *learning* according to the characteristics of the subjects. The characteristics of art subjects are creativity and activity.

From the presentation of the results of previous research, the discussion about accelerated *learning has* been done. However, there are differences in the results of research by previous researchers. On research from (Rahmiati, 2021) title "*Accelerated learning method using edmodo to increase students' mathematical connection and self-regulated learning" states* that there is no difference in mathematical learning outcomes independent students who use the AL learning method using Edmodo with students who are taught conventionally. The results of research from (Fajar Priyayi & Baskoro Adi Prayitno, 2014) entitled "*Accelerated Learning Integrated by Discovery Learning in History Course: How Z Generation Learn"* show that accelerated *learning* improve student competency for independent learning and constructivism as well *accelerated learning* assist students in instilling new knowledge and solving a problem. The results of research from Mulyono, et al (2020) entitled*" The Effect of Mathematical Self-Efficacy on High Order Thinking Accelerated Learning Learning Inferential Approach " shows* that not all students experience an increase in mathematical higher thinking skills.

Research results from (Pt Dharma Holy Utari et al., 2013) title *"Development of Mathematics Learning Tools Based on Coaching Technique to Create Accelerated Learning Revolution"* shows that 15% of students have not obtained an average score above the KKM (Maximum Completeness Criteria) by using accelerated *learning*. Research results from (Shams et al., 2019) title "*A Comparative Study to Analyze the Efficiency of Accelerated Learning to Facilitate the Understanding of English Language at Secondary Level"* states that learning outcomes experience slight changes before and after learning accelerated *learning*. Furthermore, in research from (Thapphet et al., 2017) title *"The Development of Accelerated Learning System to Enhance Motivation in Business English Learning for Undergraduate Programs"* shows that accelerated *learning* increases the value of learning English. From some of the research results above, it can be seen that there are differences in learning outcomes, so that the learning model accelerated *learning* This needs to be re-examined and model development should be carried out so that the differences in student learning outcomes in various research locations are no longer visible.

(Kratus, 2010) says in his book that through accelerated *learning* one can capture information in an intensive amount of time and use techniques to read, store and recall information quickly. (Abdullah et al., 2017) in his book also says that accelerated *learning* is a natural learning technique that fits the student's learning style so that learning feels easier and faster. In fact, the theory from Krauss and Rose is inversely proportional to the phenomenon where there are still some students who are constrained by time, meaning that difficult subject matter will make students fall behind so that learning accelerated *learning* still considered less relevant for certain respondents (Sukrisno Putra, 2015).

In other words, accelerated *learning* results-oriented ones show a lack of identification of student characteristics so that it can have an impact on the quality of learning outcomes. From some of the theories above, there is a difference between the theory and the existing phenomena, so that the learning model accelerated *learning. This* needs to be re-examined by paying attention to the conditions that occur so that there are no more differences between theory and reality in the field.

In addition to paying attention to the accuracy of the learning model used, the teacher must also understand the characteristics of students, in this case junior high school students where the stage of the development period is formal *operational* (age 11-18 years). The main feature of development at this stage is that children are able to think abstractly and logically. Scientific thinking models with types hipothetico-deductive and inductive children have started to have, with the ability to draw conclusions, interpret and develop hypotheses. On the cognitive aspect, junior high school students have the ability to think symbolically and can understand something meaningfully (*meaningfully*) without requiring concrete objects or even visual objects and at this stage of development students have multiple intelligences such as linguistic, logical-mathematical, musical, spatial, kinesthetic, interpersonal, interpersonal.

Intelligence is one of the main factors that determine the success and failure of students studying at school. Intelligence is a tool for learning, solving problems, and creating all things that humans can use. There is no intelligence without a brain, so the stupid student is a myth. The brain is a machine that produces intelligence. But humans will not be smart if there is no learning process, the way the brain must always be used. How to use the brain by thinking. During the learning process, thought works are produced and develop along with the quality of learning that is experienced. (Ade Fria Setyawan Barus, 2018) states that a person's intelligence is developed through practice or exposure. A series of great achievements do not come from the luck of being born with 'smart genes', but are the direct result of the exposure and stimulus experienced. He also stated that academic success alone is not a good indicator of one's success in life. Academic results and IQ tests are weak predictors of true intelligence because they only measure a person's linguistic-verbal and logical-mathematical abilities. Research results (Abdullah et al., 2017) (Mujmal, 2019) shows about a third of students who can be classified as gifted learners *(gifted and talented)* experience symptoms of underperformance*(underachiever)*.

Based on the background of the problems mentioned above, as a whole it can be concluded that in learning arts and culture it is necessary to develop learning models to help students achieve learning goals. Therefore, researchers are very interested in developing learning models accelerated *learning* based on multiple intelligences to improve the vocal abilities of junior high school student groups.

METHODOLOGY:

Second Level Headings

The type of research used is *Research & Development*. This research method is used to produce or perfect certain products by first testing, especially the effectiveness of these products. According to (Tuzzin et al., 2015) argues that one of the models that has been widely used in research and development in education is the systematic instructional design model of (Donà et al., 2009).

The development of a learning model is a process of determining or creating certain conditions that cause students to interact in such a way that changes in behavior occur. In developing the learning model, procedures and research designs are needed, namely:

Step 1 : Research and Information Gathering

Needs analysis is inseparable from the subject matter to be developed. The material to be developed in R & D research is the development of Model Books (BM), Teacher Manuals (BPG), Student Books (BS), Student Worksheets (LKPD), and learning achievement test instruments

Step 2: Designing the Initial Product Draft

At the planning stage of model development, the following are carried out: (a) determine the goals achieved in the development of the SGPOMP2E learning model, (b) determine who uses the SGPOMP2E model, in this case the SGPOMP2E model is applied to schools at SMP Negeri 1 Dolok Masihul and SMP Negeri 3 Dolok Masihul in class IX, (c) making research instrument grids adapted to the research of material experts, model experts, teachers and students.

Step 3 : Initial Product Development

This initial product development stage includes:

a) Prepare the SGPOMP2E learning model book
b) Prepare textbooks that become the handbook of teachers and students

c) Prepare test instruments and questionnaires (for teachers and students)

Step 4 : Trial Preliminary Draft

After developing the initial product, the material experts and model experts validated it with a formative evaluation of one-on-one tests on 3 students, small group tests of 6 to 10 students. If the SGPOMP2E model is declared suitable for use by experts, then an initial field test is carried out in one class. The formative evaluation aims to identify and remove glaring errors in teaching as well as to obtain early indications and students' reactions to the SGPOMP2E model. The instruments for one-on-one tests, small group tests and field tests use the same questionnaire to see expert validation.

Step 5 : Limited Field Test

After the development of SGPOMP2E was improved according to suggestions from experts, the main field test was carried out to obtain an evaluation of the development of the SGPOMP2E model. Therefore, formative evaluations, questionnaires, interviews can be carried out to get feedback on the development of this model. This field test was conducted at one school with 10 subjects.

Step 6 : Wide Scale Field Test

A large-scale field test was conducted at a school with a total of 30 subjects. Data collection and analysis was carried out through a summative evaluation. Summative evaluation aims to see whether all learning objectives can be achieved, whether the effectiveness of the implementation of cultural arts learning activities is successful, whether student learning activities increase, whether learning efficiency can be achieved, whether student learning outcomes have increased.

Research Sample

As the population in this study were class IX students of SMP Negeri 1 Dolok Masihul individual trial groups, small group trials, and field trials. Class IX students of SMP Negeri 3 Dolok Masihul Serdang Bedagai Regency as field trial subjects for the broader use stage of the product being developed. Furthermore, as a sample for the research trial class can be presented in Table 2. below.

Table 2. Research Subject Student Data

No.	School	Class	LK	PR	Jlh
1.	Public Middle School 1Dolok Masihul	Class IX	12	18	30
2.	SMP Negeri 3 Dolok Masihul	Class IX	11	19	30
Amount			23	37	60

Furthermore, the determination of the sample is done by random *sampling* (choose randomly) which is then adjusted to the needs of the product trial being developed. For sample determination random *sampling* obtained:

a) Practicality test of the product through one-on-one trials, small group tests (limited) and large group trials (field) was conducted on 30 students of SMP Negeri 1 Dolok Masihul.
b) Testing the effectiveness of the product through small group and field group tests was carried out to 30 students of SMP Negeri 3 Dolok Masihul.

Results

The development of the SGPOMP2E learning model was carried out based on the results at the pre-development stage.

Feasibility Test Stage (Validation)

Instrument Feasibility Test

The feasibility test (validation) of the instruments used in this study uses the Delphi technique, which is a way to predict which events will come. ask, seek, collect and develop expert opinion on an individual basis. With this Delphi technique in validating the SGPOMP2E learning model product, all experts/experts or validators are given the same opportunity (procedures, methods and so on) to assess/measure the product and all the SGPOMP2E learning model tools.

Assessment or measurement of the instruments used to collect the validity, practicality and effectiveness of the SGPOMP2E learning model products is carried out directly by researchers in the form of questionnaires given to experts/experts or validators and professional (practitioners).

Assessment of the validity of the SGPOMP2E learning model instrument is based on 4 (four) aspects/elements, namely presentation feasibility, content feasibility, construction and language. The results of expert/expert validation of the instruments used in the development of learning models accelerated *learning* based on multiple intelligences to improve vocal ability group students are presented in Table 3. below.

Table 3. Summary of Validation Results/Measurement of Feasibility (Validation) of Instruments in Research and Development of Learning Models *Accelerated Learning* Multiple Intelligence Based

No	Instrument Type	validity		Reliability	
		And	Category	Well	Category
1.	Validation (questionnaire) sheet instrument analysis of student needs	0,86	Very Worth it	0,94	Reliable
2.	Sheet (questionnaire) validation of learning management instruments	0,84	Very Worth it	0,91	Reliable
3.	Validation (questionnaire) sheet instrument learning model	0,83	Very Worth it	0,86	Reliable
4.	Sheet (questionnaire) validation of the learning model book instrument	0,88	Very Worth it	0,96	Reliable
5.	RPP instrument validation sheet (questionnaire) and evaluation tools	0,88	Very Worth it	0,96	Reliable
6.	Sheet (questionnaire) validation of the teacher manual instrument	0,86	Very Worth it	0,93	Reliable
7.	Student manual instrument validation sheet (questionnaire).	0,84	Very Worth it	0,91	Reliable
8.	LKPD instrument validation sheet (questionnaire).	0,86	Very Worth it	0,94	Reliable
9.	Sheet (questionnaire) validation of the subject trial instrument	0,86	Very Worth it	0,94	Reliable
10.	Sheet (questionnaire) validation of learning outcomes competency test instrument	0,83	Very Worth it	0,86	Reliable

Based on Table 3 regarding the assessment/measurement of the eligibility (validation) of the instruments used in the implementation of research on the development of learning models accelerated *learning* based on multiple intelligences to collect data on the validity, practicality and effectiveness of the SGPOMP2E learning model product as a whole based on the assessment of 2 experts/experts is included in the category or criteria very feasible for use in development research. The results of the assessment or measurement of the feasibility (validation) of the expert also provide some suggestions/comments in order to make improvements (revise) the questionnaire sheets used in research on developing learning models accelerated *learning* based on multiple intelligences to be more able to collect data on the validity, practicality and effectiveness of developing learning models accelerated *learning* based on multiple intelligences.

Suggestions or comments from experts on the questionnaire sheets used in research on developing learning models accelerated *learning* based on multiple intelligences to be more able to collect data on the validity, practicality and effectiveness of developing learning models accelerated *learning* based on multiple intelligences that is related to the use of appropriate language. The intended use of language standard Indonesian (EYD or Enhanced Spelling).

To level or levels reliability in questionnaires or instruments used in the development of learning models accelerated *learning* based on multiple intelligences, based on the calculated results on the test reliability instrument uses persentase *of agreements* (PA), as a whole the acquisition of arithmetic results reliability is PA ≥ 0.60 and includes category *reliable*. Thus it can be emphasized that the questionnaire sheet instrument used in the implementation of research on the development

of learning models accelerated *learning* multiple intelligence based reliable, can be used to support the implementation of research.

Research Product Feasibility Test

The feasibility test (validation) for this development research product is in the form of prototype (*draft*) of the development of learning models accelerated *learning* based on multiple intelligences (SGPOMP2E) which consists of the SGPOMP2E learning model, SGPOMP2E learning model books, lesson plans, teacher manuals, student manuals, LKPD, and student learning achievement test instruments especially on vocal group abilities.

Feasibility test on product development learning models accelerated *learning* based on multiple intelligences (SGPOMP2E) consisting of the SGPOMP2E learning model, SGPOMP2E learning model books, lesson plans, teacher manuals, student manuals, LKPD, and vocal ability test instruments group or student learning outcomes carried out with the Delphi technique (*Delphi Technique*). This technique is where the expert validates the same product (through procedures, methods and so on) to assess/measure the product or all the learning model tools developed.

Evaluation or measurement done by experts/experts to learning model development products accelerated *learning* based on multiple intelligences (SGPOMP2E) which consists of the SGPOMP2E learning model, SGPOMP2E learning model books, lesson plans, teacher manuals, student manuals, LKPD, and student learning achievement test instruments, which have previously been declared feasible by previous experts/experts who consists from 2 (two) people who are knowledgeable in the field education art, especially on the group's vocal abilities.

Feasibility Test of the SGPOMP2E Learning Model

Before the SGPOMP2E learning model is used, a feasibility test (Validation) is first carried out by experts. Validation was carried out by 4 (four) experts whose knowledge is in the field of educational technology and the arts, especially related to vocal groups which include rational models, development goals, syntax, social systems, reaction principles, instructional impacts, accompaniment impacts, *stimulation, goals, preparation, organize, monitoring, practice, performance* and *evaluation*. The results of expert validation of the SGPOMP2E learning model by experts are presented in Table 4 below.

Table 4. Summary of Prototype (Draft) Validation/Feasibility Measurement Results of the SGPOMP2E Learning Model

No	Aspect	And	Category
	A. SGPOMP2E Learning Model Content		
1.	Rational Model	0,906	Very Worth it
2.	Model Supporting Theory	0,875	Very Worth it
3.	Development Goals	0,898	Very Worth it
4.	Syntax	0,903	Very Worth it
5.	Social System	0,859	Very Worth it
6.	Reaction Principle	0,891	Very Worth it
7.	Support System	0,896	Very Worth it
8.	Instructional Impact	0,891	Very Worth it
9.	Companion impact	0,896	Very Worth it
	B. SGPOMP2E Learning Model Syntax		
1.	*Stimulation*	0,875	Very Worth it
2.	*Goals*	0,938	Very Worth it
3.	*Preparation*	0,844	Very Worth it
4.	*Organize*	0,938	Very Worth it
5.	*Monitoring*	0,875	Very Worth it
6.	*Practice*	0,906	Very Worth it
7.	*Performance*	0,906	Very Worth it

8.	*Evaluation*	0,875	Very Worth it
	Rerata	0,891	Very Worth it

For measurement and categorization of learning model qualifications accelerated *learning* based on multiple intelligences (SGPOMP2E) which was developed using the provisions of the Aiken's V formula with the provisions of the value category namely Va> 0.60 so that it can be said to be feasible. Referring to the calculation of the summary results of the validation or the measurement of the eligibility (validation) of the prototype (draft) of the SGPOMP2E learning model as a whole, the average calculated value is 0.891, this value is greater than the Aiken's V category (0.891> 0.60). Based on these calculations, it proves that the calculated results of expert validation are greater when compared to the provisions of Aiken's V category related to the development of the SGPOMP2E model, which consists of model rationale, development objectives, syntax, social system, reaction principle, instructional impact, accompaniment impact, *stimulation, goals, preparation, organize, monitoring, practice, performance* and *evaluation*.

Thus it can be emphasized that the results of expert validation of the SGPOMP2E learning model consist of rational models, development objectives, syntax, social systems, reaction principles, instructional impacts, accompaniment impacts, *stimulation, goals, preparation, organize, monitoring, practice, performance* and *evaluation* is very feasible to use in learning model research accelerated *learning* based on multiple intelligences (SGPOMP2E) to improve vocal abilities group student.

Small Group Product Effectiveness Test

The small group effectiveness test phase aims to test the effectiveness of the product being developed. The place for conducting the research was students of class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year. As an object of research is due to the low ability of student learning outcomes in group vocal lessons which are related to the learning model used during carrying out learning.

The low student learning outcomes are certainly related to teacher competence, including experience working as a teacher and level of education. The teacher should have the ability to implement learning and improve student learning outcomes. This fact proves the need for improvements to learning. This study uses research development and experimental design, namely conducting learning by developing a learning model accelerated *learning* based on multiple intelligences and developed supporting products.

This small group effectiveness test study involved 10 grade IX students of SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency. Based on the class that has been determined, learning is carried out using a learning model accelerated *learning* based on multiple intelligences. During the implementation of learning the researcher acts as a designer or designs learning, as an observer during the implementation of learning. Researchers were not involved as teaching staff during the implementation of the research.

The results of testing the effectiveness of small groups through pre-test and post-test abilities or vocal group learning outcomes related to the use of learning models accelerated *learning* based on multiple intelligences is presented in the appendix. Furthermore, N-Gain calculations were carried out from the acquisition of the average pre-test and post-test scores of vocal ability group students obtaining an N-Gain score of 0.72 are included in the high category based on the scoring provisions in Table 4.19 below.

Table 5. N-Gain Criteria

No	Percentage	Criteria
1.	N-Gain >0,70	Height
2.	0,30 ≤ N-Gain ≤ 0,70	Currently
3.	N-Gain < 30	Low

Based on Table 5 regarding the N-Gain criteria, it can be concluded that testing the effectiveness of the product through small group tests on the results of the pre-test and post-test of student learning on vocal group abilities using a learning model accelerated *learning* based on multiple intelligences which was developed by obtaining an N-Gain result of 0.72. The N-Gain results obtained above can be expressed through the interpretation of the N-Gain effectiveness category in the form of a percentage in Table 6 as follows.

Table 6. Categories Interpretation AND-Gain

No	Percentage (%)	Criteria
1.	<40	Ineffective
2.	40 s/d 55	Less effective
3.	56 s/d 75	Effective enough
4.	>76	Effective

Based on the results of the N-Gain score test above, it shows that the average N-Gain score in the high and medium categories, no N-Gain is found for each student in the low category. This means that there is an increase in the vocal abilities of student groups with the use of accelerated *learning* based on multiple intelligences.

Overall for improving the vocal abilities of student groups by using learning products accelerated *learning* based on multiple intelligences in the small limited group test, the N-Gain value was 0.72 and included in the high category. The interpretation value of the N-Gain effectiveness category in the form of a percentage is 72.00%, which means that the effectiveness category of using learning model products accelerated *learning* based on multiple intelligences on group vocal learning is quite effective.

Then a statistical test was carried out to determine the effectiveness of improving the vocal abilities of student groups using data analysis on the effectiveness test with the method experimental type equivalent *time series design* according to Creswell (2012: 314), namely by comparing pretest scores with posttest scores. Campbell & Julian (1963:43) also stated that usually this research design uses measurement analysis paired in the experimental class.

Table 7 Effectiveness Test Statistics Paired Samples Test

		Paired Differences					t	df	Say. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Postes – Pretes	44.000	7.746	2.449	38.459	49.541	17.963	9	.000

Based on Table 7 it is known that the results of calculating the significant level of 0.000 are smaller than the significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of the student groups before and after learning using learning model products accelerated *learning* based on multiple intelligences in the implementation of a small (limited) group test of 10 class IX students of SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency.

Thus it can be emphasized that the implementation of a product effectiveness test with a small group test of 10 students in class IX at SMP Negeri 3 Dolok Masihul Serdang Bedagai Regency for the 2020/2021 academic year obtained an N-Gain price of 0.72 in the high category with a percentage of 72.00 % and the calculated significant level of 0.000 is smaller than the significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of student groups before and after learning using learning model products accelerated *learning* based on multiple intelligences in group

vocal learning in class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year.

Field Group Product Effectiveness Test

The field group effectiveness test phase aims to test the effectiveness of the product being developed. The place for conducting the research was students of class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year. As an object of research is due to the low ability of student learning outcomes in group vocal lessons which are related to the learning model used during carrying out learning.

The low student learning outcomes are certainly related to teacher competence, including experience working as a teacher and level of education. The teacher should have the ability to implement learning and improve student learning outcomes. This fact proves the need for improvements to learning. This study uses research development and experimental design, namely conducting learning by developing a learning model accelerated *learning* based on multiple intelligences and developed supporting products.

This field group effectiveness test study involved 30 grade IX students of SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency. Based on the class that has been determined, learning is carried out using a learning model accelerated *learning* based on multiple intelligences. During the implementation of learning researchers act as designers designing learning, as an observer during the implementation of learning. Researchers were not involved as teaching staff during the implementation of the research.

The results of testing the effectiveness of field groups through pre-test and post-test abilities or vocal group learning outcomes related to the use of learning models accelerated *learning* based on multiple intelligences is presented in the appendix. Furthermore, N-Gain calculations were carried out from the acquisition of the average pre-test and post-test scores of vocal ability group students namely:

Furthermore, the N-Gain value of 0.73 is included in the high category based on the scoring provisions in Table 8 below.

Table 8. N-Gain Criteria

No	Percentage	Criteria
1.	N-Gain >0,70	Height
2.	0,30 ≤ N-Gain ≤ 0,70	Currently
3.	N-Gain < 30	Low

Based on Table 8 regarding the N-Gain criteria, it can be concluded that testing the effectiveness of the product through field group tests on the results of the pre-test and post-test of student learning on vocal group abilities using a learning model accelerated *learning* based on multiple intelligences that was developed by obtaining an N-Gain result of 0.73. The N-Gain results obtained above can be expressed through the interpretation of the N-Gain effectiveness category in the form of a percentage in Table 9 as follows.

Table 9. Categories of N-Gain Interpretation

No	Percentage (%)	Criteria
1.	<40	Ineffective
2.	40 s/d 55	Less effective
3.	56 s/d 75	Effective enough
4.	>76	Effective

Based on the results of the N-Gain score test above, it shows that the average N-Gain score in the high and medium categories, no N-Gain is found for each student in the low category. This means that there is an increase in the vocal abilities of student groups with the use of accelerated *learning* based on multiple intelligences.

Overall for improving the vocal abilities of student groups by using learning products, accelerated *learning* based on multiple intelligences in the field group test obtained an N-Gain value of 0.73 and included in the high category. The interpretation value of the N-Gain effectiveness category in the form of a percentage is 73.00%, which means that the effectiveness category of using learning model products accelerated *learning* based on multiple intelligences on group vocal learning is quite effective.

Then a statistical test was carried out to determine the effectiveness of improving the vocal abilities of student groups using data analysis on the effectiveness test with the method experimental type equivalent *time series design* according to Creswell (2012: 314), namely by comparing pretest scores with posttest scores. Campbell & Julian (1963:43) also stated that usually this research design uses measurement analysis paired in the experimental class.

Table 10. Effectiveness Test Statistics

Paired Samples Test

		Paired Differences					t	df	Say. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Postes – Pretes	43.167	7.008	1.279	40.550	45.783	33.739	29	.000

Based on Table 10 it is known that the results of calculating the significant level of 0.000 are smaller than the significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of the student groups before and after learning using learning model products accelerated *learning* based on multiple intelligences in the implementation of field group tests of 30 class IX students of SMP Negeri 1 Dolok Masihul, Serdang Bedagai Regency.

Thus it can be emphasized that the implementation of the product effectiveness test by field group testing of 30 class IX students of SMP Negeri 3 Dolok Masihul Serdang Bedagai Regency for the 2020/2021 academic year obtained an N-Gain price of 0.73 in the high category with a percentage of 73.00 % and the calculated significant level of 0.000 is smaller than the significant 0.05 (0.000 <0.05) which means that there are differences in the vocal abilities of student groups before and after learning using learning model products accelerated *learning* based on multiple intelligences in group vocal learning in class IX at SMP Negeri 3 Dolok Masihul, Serdang Bedagai Regency, for the 2020/2021 academic year.

CONCLUSION

Based on the results of the descriptions that have been presented in the results of research on the development of learning models accelerated *learning* based on multiple intelligences, namely the SGPOMP2E model, it can be concluded as follows.

1. Assessment or measurement of validity carried out by experts on learning models and supporting product products in the form of model books, textbooks, lesson plans, teacher manuals, student manuals, and evaluation of learning outcomes used in learning models accelerated *learning* based on multiple intelligences (SGPOMP2E) as a whole concluded with valid categories/criteria for use in the implementation of vocal learning group junior high school students.
2. Assessment or feasibility measurement carried out by experts on the learning model and supporting device products in the form of model books, textbooks, lesson plans, teacher manuals, student manuals, and evaluation of learning outcomes used in the learning model accelerated *learning* based on multiple intelligences (SGPOMP2E) as a whole it was concluded that the

categories/criteria were very feasible to use to improve the vocal abilities of junior high school student groups.

3. The results of the practicality test through small group trials, large group trials were carried out on several teachers and students on the learning model accelerated *learning* based on multiple intelligences and the supporting products developed, the overall results show that the average level of achievement is included in the very practical category used for the vocal abilities of junior high school student groups.
4. The results of product effectiveness tests with small group tests and field group tests on students obtained N-Gain prices in the high category with a fairly effective percentage which means that there are differences in vocal ability group students before and after learning by using learning model products accelerated *learning* based on multiple intelligences on vocal learning group junior high school students.

Recommendations

For other researchers who wish to conduct research using the same approach as this study, it is recommended to be able to minimize the weaknesses contained in this study, including: student characteristics, time management in teaching and learning activities and the facilities provided in place study.

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REFERENCES

[1] *Abdullah, O. :, Gemilangsari, B., Musik, S., & Uny, F. (2017). Penerapan Teknik Vokal Mahasiswa Pim Vokal Jurusan Pendidikan Seni Musik Fbs Uny Dalam Menyanyikan Lagu Populer (Pop) Di Pertunjukan Live Music. Jurnal Pendidikan Seni Musik, 2(1), 163–169.*

[2] *Ade Fria Setyawan Barus, M. S. (2018). Pembelajaran Vokal Klasik Secara Individu Pada Tingkat Pertama Di Virtuoso Music Course Yogyakarta. Program Studi S-1 Pendidikan Musik, 1(2), 1–9.*

[3] *Akhmad, I. (2016). Standar kompetensi mata pelajaran pjok. Kemendikbud Direktorat Jenderal Guru Dan Tenaga Kependidikan, 1–8.*

[4] *Deccia Citra. (2016). Analisis Multiple Intellegences Siswa Melalui Project Based Learning Pada Materi Koloid.*

[5] *Dewi, R., & Verawati, I. (2021). The Effect of Manipulative Games to Improve Fundamental Motor Skills in Elementary School Students. International Journal of Education in Mathematics, Science and Technology, 10(1), 24–37. https://doi.org/10.46328/ijemst.2163*

[6] *Donà, M., Palmeri, A., Lombardo, M., (PEER), P. E. E. R. C., \.Zak, A., Krawczuk, M., Ostachowicz, W. M. W. M., \cSim\csek, M., Abbate, A., Frankel, J., Das, P., Klimek, D., Kotidis, P., Anthony, B., Abdel Wahab, M. M., De Roeck, G., Abdel-Rahman, H. H., Baluch, M. H., Al-Hejji, A. I., … Zonst, A. E. (2009). Computational Modelling of Concrete Structures: Proceedings of the EURO-C 1998 Conference on Computational Modelling of Concrete Structures, Badgastein, Austria, 31 March-3 April 1998. Journal of Sound and Vibration. https://doi.org/http://dx.doi.org/10.1016/j.istruc.2014.10.001*

[7] *Fajar Priyayi, D., & Baskoro Adi Prayitno, dan. (2014). Pengembangan Model Pembelajaran Accelerated Learning Included By Discovery (Alid) Pada Materi Jaringan Tumbuhan Kelas Xi Sma Negeri 7 Surakarta. Jurnal Inkuiri, 3(2), 1–15. http://jurnal.fkip.uns.ac.id/index.php/sains*

[8] *Falah, R. Z. (n.d.). Landasan Filosofis Pendidikan Perspektif Filsafat Pragmatisme Dan Implikasinya Dalam Metode Pembelajaran.*

[9] *Julia, J., Iswara, P. D., Gunara, S., Yildiz, Y. M., & Agustian, E. (2020). Developing Elementary School Teacher Competence in Making Music Learning Media Using Scratch Application: An Action Research. Mimbar Sekolah Dasar, 7(3), 362–385. https://doi.org/10.17509/mimbar-sd.v7i3.29100*

[10] *Komara, C., Rachmad, D. T., Pd, M., Kholid, D. M., Pd, S., Sn, M., Pendidikan, J., Fakultas, S. M., Bahasa, P., & Seni, D. (2013). Studi Pembelajaran Gitar Bass Elektrik Dengan Menggunakan Media Minus One Di Rmo (Rumah Musik Olim) Bandung (Vol. 1, Issue 3).*

[11] *Kratus, J. (2010). Eminence in Music Education Research as Measured in the Handbook of Research on Music Teaching and Learning. http://www.jstor.org/page/info/about/policies/terms.jsp.*

[12] Michael Sugianto Panggabean. (2021). Analisis Komparatif Pembelajaran Gitar Klasikmetode Trinity Dan Metode Yamaha. Jurnal Seni Musik, Prodi Pendidikan Musik FBS Unimed, 10(2), 27–42.
[13] Mujmal. (2019). Penerapan Model Pembelajaran Accelerated Learning Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Pendidikan Agama Islam Di Kelas Xii Tkro Smk Negeri 1 Sakra. Jurnal Pendidikan Dan Sains, 1(3), 304–314. https://ejournal.stitpn.ac.id/index.php/bintang
[14] Mustafa, P. S., & Dwiyogo, W. D. (2020). Kurikulum Pendidikan Jasmani, Olahraga, dan Kesehatan di Indonesia Abad 21. JARTIKA Jurnal Riset Teknologi Dan Inovasi Pendidikan, 3(2), 422–438. https://doi.org/10.36765/jartika.v3i2.268
[15] Pt Dharma Suciutari, N., Wy Wiarta, I., Putra, M., & Pgsd, J. (2013). Model Pembelajaran Accelerated Learning Berfasilitas Multimedia Berpengaruh Terhadap Hasil Belajar Ipa Siswa Kelas V Sd Gugus Iii Kecamatan Semarapura. Universitas Pendidikan Ganesha.
[16] Rahmiati, N. (2021). Teori Belajar Accelerated Learning dalam Meningkatkan Motivasi Belajar. Jurnal Pemdidikan Tambusai, 5(1), 255–260.
[17] Ratna Luhung Strinariswari. (2015). Strategipembelajaranekstrakurikulerpaduansuaradismpnegeri2 Jepara. JURNAL SENI MUSIK, 4(2), 15–20. http://journal.unnes.ac.id/sju/index.php/jsm
[18] Rohani. (2017). Peningkatan Kemampuan Kognitif Mahasiswamelalui Penerapan Model Course Review Horaypada Mata Kuliah Pengantar Pendidikan. Jurnal Pendidikan Kewarganegaraan, 1(1), 78–86.
[19] Sartika, D. (2019). Jurnal Ilmu Sosail dan Pendidikan. 3(3), 89–93.
[20] Shams, A. K., Arshad, M., & Ahmed, G. (2019). The Efficiency of Accelerated Learning and Facilitation of English Language Understanding: A Comparative and Analytical Study of the At Secondary Level. Global Social Sciences Review, IV(I), 248–254. https://doi.org/10.31703/gssr.2019(iv-i).33
[21] Sukrisno Putra, C. (2015). Pembelajaran Vokal Dengan Metode Solfegio Pada Paduan Suara Gracia Gitaswara Di Gkj Cilacap Utara Kabupaten Cilacap. In JSM (Vol. 4, Issue 1). http://journal.unnes.ac.id/sju/index.php/jsm
[22] Supriadi, A., Mesnan, M., Akhmad, I., Dewi, R., & Suprayitno, S. (2022). The Effect of Learning Manipulative Skills Using Ball Thrower Learning Media on the Ability to Throw and Catch the Ball in Elementary School Students. International Journal of Education in Mathematics, Science and Technology, 10(3), 590–603. https://doi.org/10.46328/ijemst.2441
[23] Thapphet, S., Prachyapruit, A., & Bovornsiri, V. (2017). The Development of Accelerated Learning System to Enhance Motivation in Business English Learning for Undergraduate Programs. International Journal of Social Sciences and Management, 4(3), 185–191. https://doi.org/10.3126/ijssm.v4i3.17451
[24] Tuzzin, M., Moraes, D., Debiasi, H., Carlesso, R., Cezar, J., Rodrigues, V., Bonini, F., Reinhart, K. O., Vermeire, L. T., Practices, M., Keeling, C. D., Mook, W. G., Tans, P. P., Iqbal, M. M., Akhter, J., Mohammad, W., Shah, S. M., Nawaz, H., Mahmood, K., … Dialo, T. (2015). Improved cassava variety handbook. Soil and Tillage Research. https://doi.org/10.1590/S0100-06832009000400003