Development of AKSI Learning Models to Improve Drawing Creativity in Students in the First Middle School

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Abstract
This research is a Research and Development research. This research and development problem is how to describe the development of fine arts learning models to improve drawing creativity in students in junior high schools. The purpose of this study was to determine the description of the fine arts learning model to improve drawing creativity in students in junior high schools.
The type of research and development that produces a product is the AKSI learning model to increase drawing creativity in students in junior high schools. The AKSI learning model (active, social, creative and innovative) is made according to the concept of Wallas theory (Gorman, 1974: 273). The AKSI learning model was developed according to Borg and Goll (1983) with the following steps: designing the AKSI learning model; Making prototypes and formative evaluation. Data were analyzed using quantitative techniques complemented by qualitative analysis.
The results of this research and development indicate that increasing creativity in drawing in junior high school students can be done through learning the art of the AKSI model that is valid, practical and effective.
Keywords: *development, learning models, fine arts, increasing creativity in the drawing.*

I.   Introduction

Law No. 20 of 2003 concerning the National Education System in Article 3 states that national education has the function of developing capabilities and shaping the character and dignified national civilization in the context of educating the nation's life. National Education aims to develop the potential of students to become human beings who believe and fear God Almighty, have a noble character, are healthy, knowledgeable, capable, creative, independent and become democratic and responsible citizens.

Based on the results of the researchers' preliminary observations, the value data obtained for drawing creativity was below the minimum completeness ability (KKM). The average value obtained in drawing flora, fauna and natural objects for VII grade students in junior high school for cognitive aspects is 75.00, the affective aspect is 75.00, and the psychomotor aspect is 50.00, while the target KKM is 70. 00. Based on observations, psychomotor scores are still far from the KKM desired in school.

The results of observations of the learning process and interviews with teachers in arts and culture subjects obtained information that the low creativity of students in junior high schools on essential competencies in drawing flora, fauna and natural objects was caused by:
1. Students do not bring tools and materials for drawing;
2. Students pay less attention to the learning process;
3. Students sit alone without friends to discuss; the teacher does not give students the freedom to talk with their friends which results in students only imitating what pictures are in the textbook and even tracing them;
4. Students lack the confidence to draw and express their ideas. Do not even want to stand in front of the class to present their work.

Starting from this phenomenon, the researcher tries to develop the need for a fine arts learning model, especially in the fourth basic competency (KD4), namely the AKSI model (active, creative, social and innovative) to increase the creativity of drawing in junior high school students. The AKSI model (active, creative, social and innovative) has the main steps, namely: creating, observing, designing, expressing themselves and normalizing (finishing the work).

The AKSI learning model (active, creative, social and innovative), namely the researcher refers to the learning model proposed by Joice, Weill (1992), namely the components of the learning model consisting of (1)

syntax; (2) social system; (3) reaction principles; (4) support system; (5) instructional impact and accompaniment impact.

II. Literature Review

Definition of creativity

Creativity is a creative idea in solving problems or as the ability to see new relationships between pre-existing elements. According to Munandar (2009: 12), creativity is the result of interactions between individuals and their environment, the ability to make new combinations, based on data, information or elements that already exist or are known previously. All experiences and knowledge that a person has acquired in the school environment, family, or from the community.

The stage of developing creativity

Wallas theory (Gorman, 1974: 273) which states that the creative process includes four stages (1) preparation, (2) incubation, (3) illumination and (4) verification.

Model of Learning Fine Arts in Junior High Schools

The visual arts learning model applied in junior high schools generally uses a scientific approach to learning model, which contains 5M indicators for the achievement of learning outcomes. 5M includes observing, asking questions, gathering information, reasoning / associating and communicating. Learning to draw requires activities to realize, observe, design, express oneself and normalize (finishing works). Therefore, the researcher created a new learning model, namely the AKSI model (active, creative, social and innovative) which could be guided to carry out learning activities on the necessary competencies of drawing.

RESEARCH METHOD

In the preliminary phase, a needs assessment and field characteristics were carried out to be taken into consideration by combining both quantitative and qualitative research approaches. It stage is an activity of research and information collecting includes a review of literature, qualitative descriptive research.

The development stage of the draft model, namely making the draft design of the development of the fine arts learning model to increase the creativity of drawing in junior high school students. The validity test phase of the draft model, namely the AKSIlearning model (active, creative, social and innovative) was tested for content validity by fine arts learning experts. This stage is carried out through consultative interviews with experts (expert judgment) followed by revisions to the draft model. The practicality test of the AKSI model (active, creative, social and innovative) in art learning is carried out in one class of 22 junior high school students. Furthermore, the target is determined, namely four junior high school teachers as observers and art learning experts as many as two people as assessors.

The test of the effectiveness of the AKSI model (active, creative, social and innovative) was carried out in one class with the target of 22 students in the form of observations by two visual arts learning experts and two teachers. Each observer assessed according to the observation assessment format based on creativity indicators, namely: fluency, flexibility, authenticity and detail in realizing, observing, designing, expressing and normalizing (finishing).

Data regarding the validity of the model provides (1) instrument validity of the model and (2) prototype model I of the AKSI model (active, creative, social and innovative). The validity was given to two experts to assess the theoretical validity of the prototype model I and analyze the results of the validation to see whether the model developed was valid and acceptable. Data regarding the practicality of the model, namely five junior high school teachers were given an understanding of the contents of the model and the implementation of model learning. Furthermore, one teacher-tested it in one class, acting as an observer was two art learning expert lecturers and four teachers who had been trained on the implementation of the learning model. Data regarding the effectiveness of the model is data on the creativity of junior high school students after the AKSI model (active, creative, social and innovative) is applied.

The method from Gregory (in Ihsan, 2009) to determine if the model is used, namely: (1) Creating a data table of the validator's assessment results, (2) Entering the results of the validator's assessment into a cross-tabulation table (2 × 2) consisting of columns A, B, C and D, (3) Calculating the validation coefficient with the following formula:

$$Kv = \frac{D}{A+B+C}$$

Information:

A = Cell that shows disagreement between the two raters.

B and C = Cells that show differences in views between the first and second assessors (the first assessor agrees, the second assessor disagrees, or vice versa).

D = Cell is indicating valid agreement between the two raters.

Converting the value of the validity coefficient according to Ihsan (2009: 17), if the value of the validity coefficient exceeds (> 0.75), it is said that the model is valid. If the model is declared valid, then it is followed by reliability calculations. The model reliability value is calculated using the formula from Emmer & Millet in Borick (1994) as follows:

$$R = [1 - \frac{A-B}{A+B}] \times 100 \text{ \%}$$

Information:

R = stable value coefficient.

A = the maximum total value or the highest average value of the assessment results of the two validators.

B = the minimum total value or the lowest average value of the two validators' assessment.

The data analysis steps for the practicality of the model are (1) Determining the ideal maximum score, (2) Determining the ideal minimum score, (3) Changing the ideal maximum score and ideal minimum score into a scale range of 0 -100, (4) Determining the range, (5) Calculating the objective criteria, (6) Determining the standard score, (7) Calculating the acceptability score of the respondent and the average score, (8) Comparing the acceptance score with the standard score

To interpret the comparison of practicality scores and standard scores using the following table 1:

Table 1 practicality scores Model

Score	Categorize
X ≤ ST	Poor
X ≥ ST	Good

The results of observations by experts in art learning were analyzed through qualitative tests; it was said to be useful if there was an increase in student creativity after the model was applied.

III. Research Results

Preliminary research

1.   Conduct a literature review which includes a study of academic theories relevant to research.

2.   Conducted field studies at several junior high schools in Sinjai District.

3.   Planning and Development of the Draft AKSI Learning Model (active, creative, social and innovative).

The description of the model for developing creativity in drawing in junior high schools is described as follows:

a. Syntax

1.   Motivate students and convey learning objectives

2.   Conveying concepts, elements, principles, techniques and procedures for drawing flora, fauna and natural objects.

3.   Drawing flora, fauna and natural objects which are then transformed into pictures.

b. Social System

The teacher assists students in conveying information and guides students in implementing cognitive, affective and psychomotor strategies so that the teacher's task is to act more as a guide and facilitator.

c. Principle of Reaction

The principle of reaction is an essential role in this learning model, as said by Joice Weil (2010: 268) describing the role of the teacher in accepting all student responses and suggestions.

d. Support system

Learning facilities, materials or tools, learning aids or media that support the implementation of the learning model.

e. Instructional Impact and Accompaniment Impact

Joice, Weil (1992), named the learning objectives as the instructional effect of the model, while the companion goals are the nurturant effect of the model.

Validity and Validity of the AKSI Learning Model (active, creative, social and innovative)

The criteria used in assessing the validity of the model are: (1) The model developed is based on strong theoretical rationale, and (2) the model has internal consistency.

The method from Gregory (in Ihsan 2009) is usedto determine the model prototype validation coefficient as follows:
1.   Creating a data table of the validator's assessment results.
2.   Enter the results of the validator's assessment into the cross-tabulation table (2x2) consisting of columns A, B, C and D.
3.   Calculating the validation coefficient.
4.   Convert the value of the validation coefficient.
After the model is assessed, the results of the assessment by two experts seen in Table 2 below:

Table 2 Data on the Result of Validity Assessment of the Early Model of AKSI learning (active, creative, social and innovative)

No	Aspects	Assessment item	Score	
			Expert 1	Expert 2
1.	Content	1. Competency content and competency outcomes in the Lesson Plan is explicit/implicit.	4	4
		2. The suitability between the content of teaching materials and learning objectives following essential competencies	5	4
		3. The contents of the material in the book design the type of stimulus and skills in drawing.	5	4
		4. Form of display examples of pictures of flora, fauna and natural objects.	5	3
2.	Model Development Foundation (B)	1. The learning model is based on theory.	5	4
		2. Learning materials are based on the theory of creativity.	4	4
		3. The assessment technique is based on the theory of creativity.	3	4
3.	Serving Component (C)	1. Presentation of material encourages students to be actively involved in learning.	5	4
		2. The topics discussed can be clearly understood.	5	4
		3. The material coverage has been described in sequence.	4	3
		4. The relationship between the material and the conditions in the local environment is interrelated.	5	3
		5. The clarity of examples given can support student understanding.	4	3
4.	Model Attraction Display (D)	1. Accuracy and typeface.	3	3
		2. Interest in the image or layout.	4	4
		3. Comprehension of the whole content.	5	4
		4. Understanding of the terms used.	5	5
5.	Rational Model (E)	1. Based on a clear theoretical framework.	5	4
		2. Based on the conditions of school needs	5	4
		3. The urgency of the model as an alternative problem-solving.	5	4
		4. Clarity of formulation and a clear line of thinking to be built.	5	4

Based on the results of the assessment of the two experts, it can be seen that there is a difference of opinion between the two experts in assessing one aspect above.In the B aspect: Model Development Foundation with indicators: The assessment technique is based on the theory of creativity and D: Display of Model Attraction with indicators: Accuracy and type of letters. Of the 20 question items, only one item had differences of opinion, and 18 other items had a similarity of opinion.

Table 3 Differences and Similarities of Validator Assessments

Validator Assessments1		Validator Assessments2	
Less significant (Score 1-2-3)	significant (Score 4-5)	Less significant (Score 1-2-3)	significant (Score 4-5)
B3 D1	A1, A2, A3, A4 B1, B2 C1, C2, C3, C4, C5 D2, D3, D4 E1, E2, E3, E4	B3 D1	A1, A2, A3, A4, B1, B2 C1, C2, C3, C4, C5 D2,D3, D4 E1, E2, E3, E4

The differences in the views of the two experts in assessing the validity of the AKSI learning model are presented in the following cross-tabulation (2x2) diagram:
Validator 1

		Less significant (Score 2-3)	significant (Score 4-5)
Validator II	Less significant (Score 1-2-3)	(A) 0	(B) 1
	Significant (Score 4-5)	(C) 0	(D) 1

Figure 1. Cross Tabulation (2x2) Validity Assessment of the AKSI Model (active, creative, social and innovative)

Furthermore, the validity coefficient of the AKSI learning model (active, creative, social and innovative) can be calculated using the Gregory formula (in Ihsan, 2009: 17) as follows:

$Kv = \frac{D}{A+B+C}$

Information:

A = Cell that shows disagreement between the two raters.

B and C = Cells that show the difference in views between the first and second assessors (the first assessor agrees, the second assessor disagrees, or vice versa).

D = Cell is indicating valid agreement between the two raters.

From the above calculation, the result shows that the validity coefficient of the AKSI learning model (active, creative, social and innovative) is 0.90. It means that the validity criteria of the model are in the high category (>75%). Thus, it can be concluded that the validity or validity of the AKSI learning model (active, creative, social and innovative) is in the high category.

It is calculated by the Emmer & Millet formula (in Borich 1994) to obtain the reliability value as follows:

$R = [1 - \frac{A-B}{A+B}] \times 100\ \%$

Information :

R = Reliability Coefficient

A = The maximum total value or the highest average value of the assessment of the two experts

B = The minimum total value or the lowest average value of the results of the assessment of the two experts.

From the cross-tabulation (2x2) above, the values of A = 91 and B = 76, the reliability coefficient can be calculated:

$R = [1 - \frac{A-B}{A+B}] \times 100\ \%$

$= [1 - \frac{90-76}{91+76}] \times 100\ \%$

$= [1 - \frac{15}{167}] \times 100\ \%$

$= (1 - 0,089) \times 100\%$

$= 91,1\ \%$

Based on the above calculations, the reliability coefficient value of 0.911 shows that the reliability coefficient of the AKSI learning model is in the high category (>0.75).

As the analysis of the validity of the model in the previous discussion section, it was obtained data that the learning model validity coefficient was 0.90, which means that the learning model had a high validity coefficient. Besides, the AKSI learning model (active, creative, social and innovative) is also very reliable with a coefficient of 0.91.

Practicality and Acceptability of the AKSI Learning Model (active, creative, social and innovative).
The model acceptance data obtained from the six observers were then analyzed to obtain information about the acceptability level of the AKSI learning model (active, creative, social and innovative) by comparing the acceptability score with the standard score.
The steps to analyze the model acceptance data are as follows:
1.   Determine the maximum ideal score.
2.   Determine the ideal minimum score.
3.   Converting the ideal maximum score and ideal minimum score into a scale range of 0-100.
4.   Determine the range
R = maximum ideal score   -ideal minimum score
5.   Calculating objective criteria with the formula:
$O = \frac{R}{K}$
Information:
O = Objective Criteria
R = Range
K = Category
6. Determine the standard score.
ST = maximum score - objective criteria
7. Calculating the score for the acceptance of the respondents and their average score.
8. Comparing acceptability scores with standard scores.
The complete raw data for model acceptance is presented as in table 4 below:

Table 4 Data Acceptance Score of AKSI Learning Model

No	Rated Aspect			Number score					
				Score					
				1	2	3	4	5	6
	Question material	Categorize	1.	5	5	4	5	4	4
			2.	4	4	5	4	4	5
			3.	5	5	4	4	5	5
	Construction		1.	5	4	5	5	5	5
			2.	5	4	4	5	4	4
	Language		1.	5	3	4	5	4	4
			2.	5	3	4	5	4	5
			3.	5	3	5	5	4	4
	Instructional		1.	5	4	4	4	5	5
			2.	5	5	5	5	4	5
			3.	5	5	5	5	5	5
			4.	4	5	5	5	4	5
			5.	5	4	4	5	5	5
			6.	5	5	5	5	5	4
			7.	5	5	4	4	4	5
			8.	5	5	4	4	4	4
			9.	4	5	5	4	4	4
			10.	5	5	4	5	4	4
			11.	4	4	5	5	4	4
	Ideal maximum score			80	80	80	80	80	80
	Ideal minimum score			23	23	23	23	23	23
	Objective Score			30	30	30	30	30	30
	Respondent score			91	83	85	89	87	86

| Standard Score | | | 50 | 50 | 50 | 50 | 50 | 50 |
| Acceptance | | | Good | Good | Good | Good | Good | Good |

From the analysis of the acceptability of the AKSI model (active, creative, social and innovative) in the excellent category, it means that the model can be continued further.

Test the Effectiveness of the AKSI Learning Model (active, creative, social and innovative) with two classes.

The implementation of field trial activities in two classes is the same as the implementation of trials in one class. It is just that the implementation of the two-class trial was carried out for four meetings which were held on May 17, 2019, to May 20, 2019, at Bulupoddo 1 State Junior High School, Sinjai Regency. This two-class trial was carried out to know the level of effectiveness of the AKSI learning model (active, creative, social and innovative) by seeing the increase in student creativity after the learning model activity was implemented. The learning implementation was carried out by two observers who monitored the implementation of observation learning directed to see the students' responses to the learning process and to observe the advantages and disadvantages of the implementation of learning.

The criteria for increasing creativity in the drawing, which are used as the basis are that students have increased abilities in aspects:

1. Realizing ideas
2. Designing
3. Apply composition and proportions
4. Expression through the shape and colour of the image
5. Normalize (finishing) the work.

A student is categorized as experiencing an increase in creativity if there is an increase in the score in the five aspects above after the AKSI learning model (active, creative, social and innovative) is applied. Improvements in each aspect of the observation focus on:

1. Fluency, if students quickly find ideas, then design pictures and arrange them on drawing paper and express them through shapes and colours, then normalize, including writing identity.
2. Flexibility, freedom to perceive/express ideas about the object to be drawn, freedom to express the shape and colour of the image.
3. Originality, independence in generating and expressing ideas, independence in expressing images, combining shapes and colours to give birth to images that are self-found and independence in producing images that are one unit and ready to be exhibited.
4. Detail (elaboration), able to design detailed images of flora, fauna and natural objects, able to express through complete shapes and colours, and able to normalize/make finishing drawings according to detailed procedures.

The raw data from observations about increasing student creativity can be seen in full in the appendix. The presentation and results of the analysis are presented as follows:

1. Data on students' ability to draw flora

Table 5 Data on the average score of students' ability to draw floral shapes after the AKSI learning model (active, creative, social and innovative) was applied

No	Indicator	Convert Average Score				
		SK	K	C	B	SB
1	Fluency	-	-	-	-	4,63
2	Flexibility	-	-	-	-	4,68
3	Originality	-	-	-	-	4,91
4	Elaboration	-	-	-	-	4,68

Information:
SK = very less (0.00-1.00)
K = less (1.00-2.00)
C = Poor (2.00-3.00)
B = good (3.00-4.00)
SB = very good (4.00-5.00)

The average aspect of the four indicators above is 4.73, which is in the outstanding category. It means that the students' ability in the aspect of understanding the procedure for drawing flora after the AKSI learning model (active, creative, social and innovative) was applied in an outstanding category.

Table 5 Data on the average score of students' abilities to draw fauna shapes after the AKSI learning model (active, creative, social and innovative) was applied

No	Indicator	Convert Average Score				
		SK	K	C	SK	SB
1	Fluency	-	-	-	-	4,30
2	Flexibility	-	-	-	-	4,52
3	Originality	-	-	-	-	4,77
4	Elaboration	-	-	-	-	4,45

Information:
SK = very less (0.00-1.00)
K = less (1.00-2.00)
C = poor (2.00-3.00)
B = good (3.00-4.00)
SB = very good (4.00-5.00)
From the table above, it can be seen that the average aspect of the four indicators above is 4.51, which is in the perfect category. It means that the students' ability to draw fauna shapes with unique shapes and colours after the AKSI learning model (active, creative, social and innovative) was applied, obtained an excellent category.

Draw natural objects
Table 6 Data on the average score of students' abilities to draw natural objects after the AKSI learning model (active, creative, social and innovative) was applied.

No	Indicator	Convert Average Score				
		SK	K	C	SK	SB
1	Fluency	-	-	-	-	4,61
2	Flexibility	-	-	-	-	4,66
3	Originality	-	-	-	-	4,91
4	Elaboration	-	-	-	-	4,59

Information:
SK = very less (0.00-1.00)
K = less (1.00-2.00)
C = poor (2.00-3.00)
B = good (3.00-4.00)
SB = very good (4.00-5.00)
From the table above, it can be seen that the average aspect of the four indicators above is 4.70, which is in the outstanding category. It means that the student's ability in the aspect of students' ability to draw natural objects after the AKSI learning model is applied is in the excellent category.

IV. Discussion

This learning model uses the basic theory of Wallas in Gorman (1974: 273), namely the creative process is preparation, incubation, illumination and verification. Wallas's theory is strengthened by Guilford's' theory of assessing the process of creativity in Gorman (1974: 275), which includes: Originality, Flexibility, Fluency, Elaboration.

Table 7 Results of Data Analysis of the Validity of the AKSI Learning Model

No	Validator	Score	Categorize
1	Validator 1	0,90	Valid
2	Validator 2	0,90	Valid

The results of the observation data analysis showed that in the first-class trial that had been carried out for four meetings:

1.   Tabulation of the results of the user evaluation of the learning model.

Based on the analysis of the results of the evaluation, it was found that 83 users reached the completeness criteria with a minimum score of 23. Furthermore, it was analyzed based on the evaluation criteria of the user evaluation results, which resulted that the learning model was categorized as useful.

2.   Observations of student activities

Based on the analysis of the student's observation data during the trial, it was stated that the AKSI learning model (active, creative, social and innovative) could be used to increase the creativity of drawing in students in junior high schools.

The effectiveness of the AKSI learning model (active, creative, social and innovative) can increase the creativity of drawing in junior high school students. It is based on a creativity assessment rubric which is based on the temporal indicators of drawing the existing flora, fauna and natural objects. The creativity assessment rubric includes fluency, flexibility, originality, elaboration. The average aspect of the four indicators above is 4.70, which is in the outstanding category.

V. Conclusion

The AKSI learning model (active, creative, social and innovative) is a student-centred learning model that helps them learn to solve problems, make students more active, creative, social and innovative in carrying out learning activities. This model also demands the role of the teacher to act as a facilitator, motivator and guide. The steps in the AKSI learning are realizing, observing, designing, expressing and normalizing (finishing).

The AKSI learning model (active, creative, social and innovative) meets the criteria of validity and practicality as a model that is easy to use by teachers in schools because it can increase student creativity in drawing. The AKSI learning model (active, creative, social and innovative) is effectively applied by teachers in junior high schools, because it is easy to understand and implement in increasing self-confidence, appreciating the work of others and can create creative and innovative work.

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