

INTEGRATIVE CURRICULUM IN TEACHING SCIENCE IN THE ELEMENTARY SCHOOL

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ABSTRACT

This study aimed to develop a curriculum for teaching science in the Integrative Science in elementary school, as well as foster an attitude wise on students to the cultural values that are integrated. Implementation of integrative curriculum is expected to drive the implementation of the curriculum of characters that are beneficial to the students, such as: understanding and mastery of teaching materials, the growth of the student's personal attitude toward wise on religious values and culture of Aceh are integrated. The main objective While the schools prepare learning device or media integrative learning curriculum for elementary schools as a guideline for teachers. Curriculum development method consists of three phases: (1) the initial assessment phase, (2) design phase, (3) the implementation phase. As for assessing the quality of the curriculum is an integrative manner stare validity, practical, and effective in implementation in the thematic learning in primary school. The results are found to exist Integrative Curriculum device and its components are valid for use by teachers in the learning process of primary school students.is to implement integrative values of Islamic Shari'a in thematic learning in elementary school as expected by parents guardians and community. The teacher's role in implementing character education, which provides guidance and examples in the learning process so that there is a change in attitude to the students.

Keywords: Integrative curriculum, learning, materials science, character.

INTRODUCTION:

Culture that developed in Acehese society is rooted in the teachings of Islam embraced by the whole population of Aceh. First Islamic values were practiced and became customary tradition in the community, which is passed down from generation to generation through education in the family, in places recitation and Islamic boarding schools, and in society, in order to educate the Muslim personal morality. However, because of the influence of modernization, it now has been a shift in community values. These values are no longer living in the community and is not an important part in educational activities (Sulaiman, D 2005, dan Cut Morina, 2013). Disclosure of Aceh today, lead the people of Aceh suffered exposure to a variety of foreign cultures. Meanwhile, the condition of the natural environment in Aceh after the earthquake and tsunami, is very worrying and diamcam with disease outbreaks. Clean water sources used by the people already polluted sulfur and arsenic from the earthquake and tsunami that. The need for clean water with good quality into something that is expensive for the people of Aceh at the time because of all the water sources become severely damaged. Although in most areas people can still rely on well water, but the distribution of water to people's homes is not smooth due to limited transportation.

In the implementation of Islamic law as well as in effort to stabilize and develop the Islamic education system being developed in Nanggroe Aceh Darussalam (NAD), the Islamic culture and tradition should be revived in Aceh. For that, the government has compiled Qanun NAD Education in the province which confirms that the NAD Provincial Education is education which is based on Al-Quran and al-Hadith, the state philosophy of Pancasila, the 1945 Constitution, and the culture in Aceh.

Responding Qanun Education in the province of Nanggroe Aceh above, issued policies in education, one of which policies on curriculum development relevant to active learning, creative, effective, and fun and tailored to local needs, particularly in relation to the implementation of Islamic law. According to Cut Morina (2014) explains that one of the most important aspects of the implementation of the Aceh specialty bersendikan Islamic law is the education system that is capable of supporting the ideals gave birth to the human resources of superior quality and competitive in both quality of faith and piety as well as the quality of science and technology. However, Rusdi Sufi (2010) and Ibrahim (2015) explains that the Islamic atmosphere in the implementation of the education system in Aceh has not revealed a strong impression so it is not seen a significant difference between before and after the application of Islamic law. Many things seem not to support the structuring of the system, among other teaching materials are not well ordered and competency-based curriculum Aceh unfinished version (McNeil, J.D. 2000).

Along with that, the character of curricula (Curriculum 13) stressed that one of the principles is the actual syllabus development and contextual. In addition, the learning is done emphasis on the characteristics, needs, and serving area. Learning is one of them is learning refers to the integrative curriculum, which is a curriculum that was developed to support the implementation of the curriculum of character and is in accordance with the interests of students. Integrative Curriculum implementation is done through the development and implementation of learning that integrates the values of water management and sanitation, local knowledge and cultural diversity Aceh (Ibrahim, 2014 and Bloom, B.S. & Eddy, M. 1981).

The main target of this research is to implement the thematic curriculum integrative learning in primary schools is a learning activity can be done as follows.

- (a) Developing an integrative curriculum on science for science teaching and learning process with a scientific teaching materials and technology will.
- (b) Developing a support device integrative learning thematic curriculum that includes: Lesson Plans, Worksheets students, Handbook of Learning, Curriculum Development Guide Integrative.
- (c) Develop instruments to determine the quality of an integrative curriculum has been developed (for the first year only effective instruments).

METHODS:

This research is developing Research design. The research design used in connection with the development of the research objectives above is the design development by Plomp (1997) as described below.

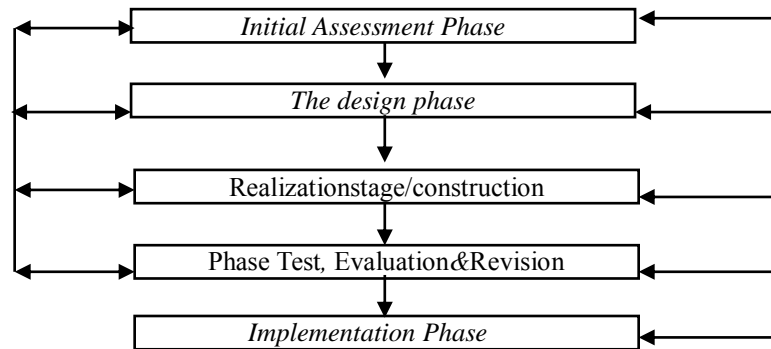


Figure1. Plomp Research Design Model Development

To development integrative curriculum with the five elements mentioned above, the development of the model will be used with reference to the study of Plomp (1997), namely

1. Initial Assessment Phase:

This stage is the analysis stage at problems. This stage includes: (a) identifying information, (b) identification information, (c) defining the problem, (d) to plan follow-up activities.

2. The design phase:

Activities at this stage aim at designing the solution to complete the problems identified in the first phase.

3. Realization Phase/Construction:

At this stage, the prototype was made, as the main design of the model of Integrative Curriculum

4. Phase Test, Evaluation, and Revision:

This stage aims, to consider the quality of the designs developed, and make decisions through careful consideration. Evaluation includes a process to collect, and analysis the information systematically. This is done to assess the quality of the selected solution. Subsequently revised and then back to the design activities, and so on. This cycle is called the feedback cycle and stopped after obtaining the desired solution.

5. Implementation phase:

At this stage, the solution has been obtained after through evaluation. The breakdown is considered to meet the problems encountered. Therefore the chosen solution can be implemented or applied in real situations.

For trials conducted in third grade Elementary School 3 Banda Aceh. Schools have been purposively with consideration taken care of by teachers who have been partners implement ALCF (Active Learning Creative and Fun). Elementary School number 3 Banda Aceh is the result of regrouping conducted school Education Office of Banda Aceh after the tsunami. This school was comprised of four (4) primary schools, namely Elementary School Negeri 3, 13, 14, and 42. Placement of students in classes not randomized parallel manner with perengkingan. It is based on information from the city education department in charge of the school, the results of discussions with the principals and teachers, and researchers in the field of observation.

DATA ANALYSIS TECHNIQUES AND INDICATORS OF ACHIEVEMENT:

Data about student activities, teacher activities, student development scores, and teacher responses will be analyzed descriptively. It is intended to look at feasibility and effectiveness of integrative

curriculum. Feasibility criteria used is based on the methods of grading in summative evaluation of Bloom, B.S 1981 and Hunkins, F.P. 1980) namely

90% ≤ KKI	=	very high
80% ≤ KKI < 90%	=	high
70% ≤ KKI < 80%	=	moderate
60% ≤ KKI < 70%	=	low
KKI < 60%	=	very low

information : Implementation Integrative Curriculum (KKI)

While the effectiveness criteria, Integrative Curriculum refers to the incorporation of the criteria proposed by Eggen, Paul.D & Kauchak, Donald. P. (1996) and Kemp, M.E & Ross, L.(1988) the model is said to be effective, if it met at least 5 of the 6 criteria.

- 1) Average activity on task students minimum of 90%.
- 2) Average active student activity minimum of 40%.
- 3) The level of compliance activity observed with students who expected minimal by 80%.
- 4) There is an increasing trend of test scores formative/development.
- 5) More than 50% of students responded positively to the model of integrative curriculum.
- 6) Teachers responded positively to the Integrative Curriculum.

ASSESSING QUALITY INTEGRATIVE CURRICULUM:

Quality criteria developed integrative curriculum, referring to the criteria Nieveen(1999), the validity, practicality, and effective. The third indicator criteria are as follows.

a. Validity:

Integrative curriculum is valid, if it meets the following criteria:

- (1) At least four of the six experts (validators) states that an integrative curriculum based on a strong theoretical foundation.
- (2) At least four of the six experts (validators) states that the components of integrative curriculum consistent in the classroom.
- (3) The results of tests showed that the components are interrelated integrative curriculum.

b. Practicality:

Integrative curriculum practical to say, if they meet the following criteria:

- (1) At least four of the six expert give consideration that the integrative curriculum can be applied in the classroom.
- (2) Teacher states can implement Integrative curriculum in the classroom.
- (3) The feasibility Integrative curriculum, including the very high category.

c. Effectiveness:

Integrative curriculum is effective, if it meets the criteria Kemp. J.E., Morrison, G.R., Ross.S.M (1994) and Eggen, Paul.D & Kauchak, Donald. P. (1996) as described in the above data analysis.

RESULTS AND DISCUSSION:

Integrative curriculum say validity criteria if:

- The value of M (validity) Integrative Curriculum at least be in a category quite valid, and
- The value of M for aspect (component) Integrative Curriculum valid at least in the category information

- M < 1,5 no valid
- 1,5 ≤ M < 2,5 quite valid
- 2,5 ≤ M < 3,5 valid
- 3,5 ≤ M < 4 very valid

Based on the validation that has been done, the following data has been obtained

Componen	Results Analisis	Revision suggestions,	Conclusions
KI (Integrative curriculum)	M = 3,4 (valid)	1. Add constructivist theories as models supporting theory 2. Layout books and brochures Integrative curriculum by add introduction 3. Students' interaction with students as part of the social system	Can be used with minor revisions
RPP (implementation of lesson plans)	M = 3,6 (very valid)	1. Include basic competesion and Indicator Integrative curriculum in plant lesson study 2. Stated explicitly integrative values for implementation of lesson plans 3. Separate clearly reinforcement learning activities for each subject	Can be used with minor revisions
LKS (student work sheet)	M = 3,6 (verry valid)	1. Must Must seem an effort to foster the values of wisdom that are integrated 2. Consider the suitability of the many problems with the allocation of time working on student work sheet	Can be used with minor revisions
Buku Panduan Belajar (hand book/ textbooks)	M = 3,6 (squte valid)	1. Description of the material associated withreal life 2. There should be activities students construct knowledge 3. Add instructions for studentsin training cognitive strategies..	Can be used with minor revisions
LPKI	M = 3,4 (valid)	Fix sentence and display (layout)	Can be used with minor revisions
LOKKI	M = 3,7 (sangat valid)	Fix sentence and display (layout)	Can be used with minor revisions
LOKGM	M = 3,6 (sangat valid)	Fix sentence and display (layout)	Can be used with minor revisions
LOAS	M = 3,6 (sangat valid)	Fix sentence and display (layout)	Can be used with minor revisionsl
ARS	M = 3,7 (sangat valid)	Fix sentence and display (layout)	Can be used with minor revisions
TPB	M = 3,5 (sangat valid)	Fix sentence and display (layout)	Can be used with minor revisions

Based on the table above, it is inferred that integrative curriculum and its component sare in the category of very valid. Of the 10 aspects validated, invalidobtained 2 and 8 aspect very valid. Based on the criteria specified,mean Integrative Curriculum has met the validity criteria. While aspects (components) Integrative Curriculum basedon predetermined criteria alsohaveto meet the validity criteria.

From the table it appears that for Integrative Curriculum in the category valid. Validator suggest books and brochures integrative curriculum to be revised. Revision done is to add the constructivist theory as a theory advocates, lay out books and brochures KI improved by adding an introduction, and student interaction with students as part of a social system. But substantively integrative curriculum is generally valid.

As for the implementation of lesson plans, student worksheets, textbooks learning, obtained input on some of the parts to be revised. But substantively (RPP, LKS, and Handbook) implementation of lesson plans, student worksheets, textbooks learning, in general is very valid. Likewise for the other components of integrative curriculum, in general already meet the validity criteria categorized as very valid.

CONCLUSION:

Based on the validation process has been performed, acquired device developed an integrative curriculum valid.

1. The values of wisdom in everyday life (especially water and sanitation, local knowledge, cultural diversity) are expected to be included as a thematic learning goals, so it must be designed in learning by:
 - Integrative Kuriulum indicator imprinted on lesson plans, student worksheets, and Handbook of learning,
 - Wisdom of students to the values that are integrated in the learning should be assessed as a result of learning.
2. Teachers are expected to implement the thematic learning and cultivation of the values and wisdom inherent in everyday life in an integrated manner in the classroom.
3. Necessary testing and implementation of an integrative curriculum that has been developed.
4. Integrative curriculum that has been developed still need to be expanded to other core subjects (Social science, Longue, Economi, & Civics).

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