

The Evaluation of Adiwiyata Mandala-Based School Program in Public Junior High School SMP Negeri 4 Wonosari, Boalemo Regency

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Abstract

The objective of this research is to explore several aspects in junior high school, SMP Negeri 4 Wonosari; these aspects are: 1) The context (antecedents) of Adiwiyata Mandala-based school program; 2) The implementation (transaction) of the program, and; 3) The outcome of the program implementation. This descriptive, evaluative research employed Countenance Evaluation Model. The results reveal that: 1) the percentage of the context (antecedents) of Adiwiyata Mandala-based school program measures at 89.13%, very good category. All of the contexts are well-implemented. 2) The percentage of the implementation (transaction) of Adiwiyata Mandala-based school program measures at 92.41%, very good category. The processes of this aspect are well-implemented. 3) The percentage of the outcome of Adiwiyata Mandala program measures at 89.39%, very good category. This is because the program is successful and it is in line with its objectives.

Keywords: Evaluation, Adiwiyata Program

Introduction

Adiwiyata is a program by the Ministry of Environment aimed at broadening knowledge and raising awareness of the school community in environmental preservation. This program is designed based on social norms, i.e., togetherness, openness, equality, honesty, fairness, and the preservation of environmental functions and natural resources. Furthermore, the government of Indonesia has established a policy of education as stipulated in Law Number 32 of 2009 considering Environmental Protection and Management. Siswoyo et al. (2008:14) point out that schools (as the institution of wiyata) are an educational environment that develops and sustains education for children. This is to produce intelligent, skillful, and socialized students.

The main objective in Adiwiyata program is to conceptualize environment-friendly elementary and secondary schools in Indonesia. Educational institutions or schools are the only media to educate people. It provides people with access to education and information regarding the importance of environmental preservation. This is in line with the idea by Danim (2011:40) that the main goal of education is to transfer knowledge and to educate human. It is expected that society is aware of the importance of a clean environment, i.e., healthy environment for our bodies, through the implementation of the program. Four components of Adiwiyata-based school program have been integrated to achieve the objective of this program. These components are 1) environmental-based policy, 2) the implementation of environmental-based curriculum, 3) participative-based environmental activities, and 4) management of eco-friendly facilities.

Evaluation is essential to find out the success of a program. Dimiyati and Mudjiono (2013:191) define evaluation as a systematic process to assess a particular object based on certain criteria. An

evaluation also enables people the effectiveness of programs by which it helps the decision-making process, such as to determine whether or not the program will be continued, improved, or ended.

Public Junior High School SMP Negeri 4 Wonosari is among secondary schools that implement Adiwiyata program. Environment-friendly culture is unique to Adiwiyata schools; the schools have conducted a number of environment preservation activities. Some of the examples are management, preservation, and empowerment of the surrounding. The activities involve all school members and society. As a result, the school received the environmental-friendly school award.

In the light of the above discussion, the researcher is urged to explore the implementation of Adiwiyata Mandala program in SMP Negeri 4 Wonosari through a study entitled "Evaluation of Adiwiyata Mandala-Based School Program in Public Junior High School SMP Negeri 4 Wonosari, Boalemo Regency".

Therefore, this research aims to explore several aspects in the research area; these aspects are: 1) the context (antecedents) of Adiwiyata Mandala-based school program; 2) the implementation (transaction) of the program, and; 3) the outcome of the program implementation.

Theoretical framework

Program evaluation is a set of activities undertaken to determine the success level of a program. Arikunto (2010:297) adds that program evaluation is intended to find out the level of success of planned activities. A more accepted definition of program evaluation is proposed by Cronbach and Stufflebeam (as cited in Arikunto and Jabar, 2004:4). They assert that program evaluation is an effort to provide information to decision-makers. Every activity as a conceptualization of a policy must be designed thoroughly to attain the goal stipulated in the policy effectively. Therefore, the conceptualization of a policy is a program in which evaluators can benefit much from it as it enables them to scrutinize the advantages and disadvantages of the policy.

Countenance evaluation model by Stake emphasizes two aspects of implementation, i.e., (1) description and (2) consideration. The model also distinguishes three steps in program evaluation, such as (1) antecedent, (2) transaction, and (3) output. Stake (2007:1) introduces this model with a concept of evaluation of basic characteristics of complex, dynamic education focusing on various targets and practical judgment. An evaluation is supposed to provide an illustration of advantages and disadvantages through exceptional identification process that is collected and processed systematically. In the aforementioned model, the target and procedures of education evaluation are identified as some aspects, such as efforts of evaluation, data sources, congruence and contingency, standard, and the use of evaluation. The segregation is carried out between the process of description and judgment.

Stake's model provides a balanced emphasize among processes that bring to the outcome. Procedures in countenance stake evaluation model are explained by Lee (2011:1); the model uses diverse data sources where the sources are further depicted in two matrixes. The first matrix is called description matrix and the second is the consideration matrix. The second matrix can be done once the evaluator completes the first matrix. Each matrix consists of two categories and three parts; the description matrix comprises the category of intent and observation. After creating the intent and observation matrix, the evaluator further advances to the matrix of consideration consisting of the category of standard and judgment. These enable the evaluator to formulate a judgment.

Semantically, the term Adiwiyata Mandala is from two words: adiwiyata (education) and mandala (environment). In addition, the concept of Adiwiyata Mandala explains a school as an environment for education. This means that schools are a place where the process of teaching and learning and humanizing human takes place; school is also free from all negative influences from the internal and external of the institution (Wahjosumidjo, 2000). The handbook of Adiwiyata (2012:13) defines the program as an ideal place to access knowledge and learn norms as well as ethics functioning as the

guideline for people to promote the welfare and to achieve sustainable development. Adiwiyata-based School is a program by the Ministry of Environment aimed at broadening knowledge and raising awareness of the school community in environmental preservation. The objective of Adiwiyata program is to conceptualize a responsible school community in preserving the environment through excellent management to support sustainable development. This resonates to the Law Number 32 of 2009 considering Environmental Protection and Management.

The Adiwiyata program is awarded from the local, regional, and national government as well as the independence level. It is expected that the program is able to disseminate the principle of Adiwiyata to schools and other assisted villages. That being said, a school must fulfill four indicators to conceptualize Adiwiyata program, such as 1) environmental-based school policy, 2) development of environmental-based curriculum, 3) participative-based environmental activities, and 4) management of eco-friendly school facilities.

Research methodology

This research was conducted in public junior high school SMP Negeri 4 Wonosari in Jln. Bhayangkara No.172, Harapan village, Wonosari sub-district, Boalemo Regency, Gorontalo. It was conducted for three months, from April to June 2018. This present study is evaluative research. It is aimed at evaluating Adiwiyata Mandala program which encompasses aspects, such as antecedent (vision and mission, principal, teachers, students, school budget, facilities, and infrastructure), transaction (curriculum, skill, learning methods, partnership), and output (achievement). Countenance evaluation model emphasizes three aspects, i.e., antecedent or context, transaction or process, and output. This model is developed by Stake that highlights the implementation of two main points, i.e., (1) description and (2) consideration. Furthermore, the model categorizes the evaluation process into three steps, namely 1) antecedent, 2) transaction, and 3) output.

The object of this research is the implementation of Adiwiyata Mandala program in public junior high school SMP Negeri 4 Wonosari. The subject involved all school community, such as the principal, teachers, administrative staffs, students, and school committee. Furthermore, the data were from a questionnaire, interview, observation, and documentation. As many as 16 questions grouped in three indicators were used as the instrument of evaluation of the program in the research site. These questions were to generate valid data regarding the indicators in the evaluation of Adiwiyata Mandala program. The data were further analyzed statistically and descriptively using a percentage formula (%) with the formulation as follows:

$$Pr = F/n \times 100 \quad (\text{Sugiyono, 2011:107})$$

Where:

Pr = Percentage

n = Number of respondents' answers

F = Frequency of respondents' answer

100% = Fixed number

The following formula is used to convert the percentage into score:

$$Pr = Sc/Si \times 100 \%$$

Where:

Pr = Percentage

Sc = Achieved score (total score achieved)

Si = Ideal score (the maximum score that can be achieved)

100% = Fixed number

Table 1 Qualification of criteria

Range of Score	Scale	Category
91% - 100%	4	Very Good
81% - 90%	3	Good
71% - 80%	2	Fair
61% - 70%	1	Poor

(Source: Thoha, 1990:89)

Results and Discussion

This research was conducted in public junior high school SMP Negeri 4 Wonosari, Boalemo Regency, Gorontalo. This present study discusses the evaluation of the implementation of Adiwiyata Mandala program in the research site. Several assessment components based on Countenance Stake model comprise context, implementation processes, and output. The following is the result based on the problem statement of this study.

Table 2 Evaluation result: context (*antecedent*) component

Evaluation Criteria	Total	Average
Vision and Mission	117	88.63
School Principal	119	90.15
Teachers	116	87.87
Students	106	80.30
School Budget	122	92.42
Facilities and Infrastructures	126	95.45
Average		89.13

The above table reveals that the aspect of antecedents is categorized good with a percentage of 89.13%. This signifies that two indicators and four indicators within this study are in good and very good category respectively. The result of the evaluation is provided in the following matrix table:

Table 3 Countenance matrix: antecedent component

Description Matrix		Judgment Matrix	
Intent	Observation	Standard	Judgment
Vision and Mission	- The vision and mission of school	Vision and mission of school	Some management activities need to be enhanced. Thereby, the percentage of unaccomplished aspect reaches 11.37%.
Designing and internalizing vision and mission of school that contains environmental management and preservation.	- incorporate environmental management and preservation as mentioned in point 8, 9, and 10. - There is an internalization during the implementation of Adiwiyata program. - The actualization of accomplishment of vision and mission measures at 88.63%, good category.	incorporate three efforts of environmental management and preservation.	

Cont. Table 3

School Principal Supervising the Adiwiyata Mandala school program.	<ul style="list-style-type: none"> - The involvement of the school principal in implementing the Adiwiyata Mandala school program. - The effort of the school principal in modeling the efforts in raising awareness of environmental preservation. - The actualization of accomplishment of the roles of the school principal measures at 90.15%, very good category. 	The school principal plans, directs, and supervises the conduct of Adiwiyata Mandala school program.	The school principal is suggested to develop his or her ability. This indicates that the percentage of unaccomplished aspect reaches 9.85%.
Teachers Teachers design and develop a lesson plan and assessment tools regarding environmental preservation and management.	<ul style="list-style-type: none"> - The instructional media is designed by teachers. - Teachers have endeavored to develop learning indicators through environmental-based activities. - The actualization of accomplishment of teachers' involvement measures at 87.87%, good category. 	The lesson plan based on the environmental management and preservation comprises of <ul style="list-style-type: none"> - Syllabus - Lesson Plan - Learning material - Media 	Teachers have not developed all learning indicators. As a result, the percentage of unaccomplished aspect reaches 12.13%.
Students Students learn the aspects of environmental management and preservation.	<ul style="list-style-type: none"> - Learning activities involve seeding, building a greenhouse, studying medicinal plants, composting, and management of trash bank that is often done by students. - The actualization of accomplishment of students' involvement measures at 80.30%, good category. 	Activities based on the environmental management and preservation comprise of <ul style="list-style-type: none"> - Environmental care - Clean-up activities - Arranging the environment - Management 	Students' activities in preserving and managing the environment are yet effective. Thereby, the percentage of unaccomplished aspect reaches 19.7%.

Cont. Table 3

<p>School Budget</p> <p>The school allocates funds for environmental preservation and management</p>	<ul style="list-style-type: none"> - The availability of Activity Plan and School Budget in allocating the budget of Adiwiyata program implementation. - Financial accountability in the implementation of Adiwiyata program. - The actualization of accomplishment of the school budget measures at 92.42%, very good category. 	<p>According to the technical financial guideline, the school allocates 20% of its budget to the implementation of environmental preservation and management</p>	<p>The budget allocation for Adiwiyata program implementation is yet effective. Thereby, the percentage of unaccomplished aspect reaches 7.58%.</p>
<p>Facilities and Infrastructures</p> <p>The school provides facilities and infrastructures in coping with the issues of environment and supporting environmental-based learning.</p>	<ul style="list-style-type: none"> - The availability of a drainage system comprising of a clean water reservoir and storage. - The availability of healthy cafeteria and clean toilet. - The actualization of accomplishment of the facilities and infrastructures measures at 95.45%, very good category. 	<p>Facilities and infrastructures of environmental management and preservation consist of</p> <ul style="list-style-type: none"> - Clean water - Toilet - Drainage system - Urban open space - Greenhouse - Composting - Medicinal plant - Trash bank 	<p>The facilities and infrastructures are not utilized maximally. Thereby, the percentage of unaccomplished aspect reaches 4.55%.</p>

From the above result, it is revealed that the actualization of antecedents of Adiwiyata Mandala program is mostly well-implemented. The result is provided in the following chart:

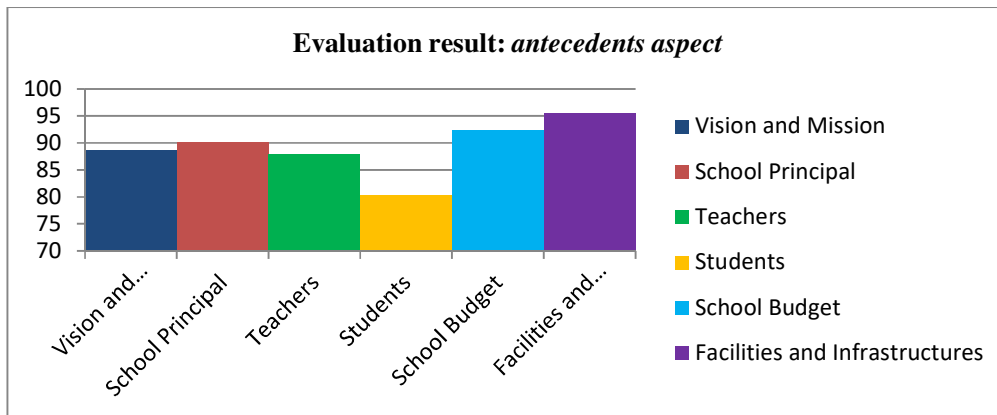


Figure 1 Antecedent aspect evaluation result

From the above result, it is revealed that the actualization of antecedents of Adiwiyata Mandala program is mostly well-implemented.

Table 4 Evaluation result: implementation (*transaction*) component

Evaluation Criteria	Total	Average
Curriculum	127	96.20
Skill	126	95.45
Learning Methods	124	93.93
Partnership	111	84.09
Average	92.41	

The above table reveals that the aspect of the transaction is in a very good category with a percentage of 92.41%. This signifies that three indicators and one indicator within this study are in good and very good category respectively. The result of the evaluation is provided in the following matrix table 5.

Table 5 Countenance matrix: transaction component

Description Matrix		Judgment Matrix	
Intent	Observation	Standard	Judgment
Curriculum Structure of the school curriculum and assessment criteria contains the principles of environmental preservation	<ul style="list-style-type: none"> - The availability of syllabus and lesson plan that integrates environmental management and preservation. - The standard of minimum mastery standard in each environmental preservation and management-integrated lesson. - The actualization of accomplishment of curriculum measures at 96.20%, good category. 	School curriculum comprises <ul style="list-style-type: none"> - Functions of the environment - Preventing pollution - Environmental damage 	The material of environmental preservation and management is not fully conceptualized in learning processes. As a result, the percentage of unaccomplished aspect reaches 3.8%.
Skill Creativity and innovation in managing school environment	<ul style="list-style-type: none"> - The school has several activities of environmental preservation, e.g., farming, composting, and trash recycling. - The school celebrates environmental days, such as national garbage day. - The actualization of accomplishment of school implementation of Adiwiyata program reaches 95.45%, very good category. 	Creativity and innovation in managing school environment comprises <ul style="list-style-type: none"> - Maintain cleanliness - Improving tidiness of the area - Promoting a beautiful environment - Planting more trees 	Not all the recycle attempts by the school are recognized by which the percentage of unaccomplished aspect reaches 4.55%.

Cont. Table 5.

<p>Learning Methods</p> <p>Teachers apply a learning method that gets the students involved actively</p>	<ul style="list-style-type: none"> - The use of several learning methods, such as lectures, demonstration, and field practicum. - The environmental-based learning takes in the form of indoor and outdoor class. - The actualization of accomplishment of learning methods measures at 93.93%, very good category. 	<p>Environmental-based learning involves:</p> <ul style="list-style-type: none"> - Demonstration - Discussion - Simulation - Observation 	<p>Since lecturing still dominates the learning methods, the percentage of unaccomplished aspect measures at 6.07%.</p>
<p>Partnership</p> <p>Establishing a school partnership with various environmental organizations</p>	<ul style="list-style-type: none"> - The school establishes a partnership with stakeholders and environmental organizations, either from the internal and external of the school. - The school establishes a partnership in a written agreement (MoU) - The actualization of accomplishment of school partnership measures at 84.09%, good category. This is represented by several partnerships with a number of environmental organizations. 	<p>Partnerships with environmental organization involve several parties, such as</p> <ul style="list-style-type: none"> - Government - Society - Private Sector - Media - Other schools 	<p>The partnership is mostly with the school committee, meaning that some aspects (15.91%) are not satisfied.</p>

From the above result, it is revealed that the actualization of the transaction of Adiwiyata Mandala program is mostly well-implemented. The result is provided in the following figure:

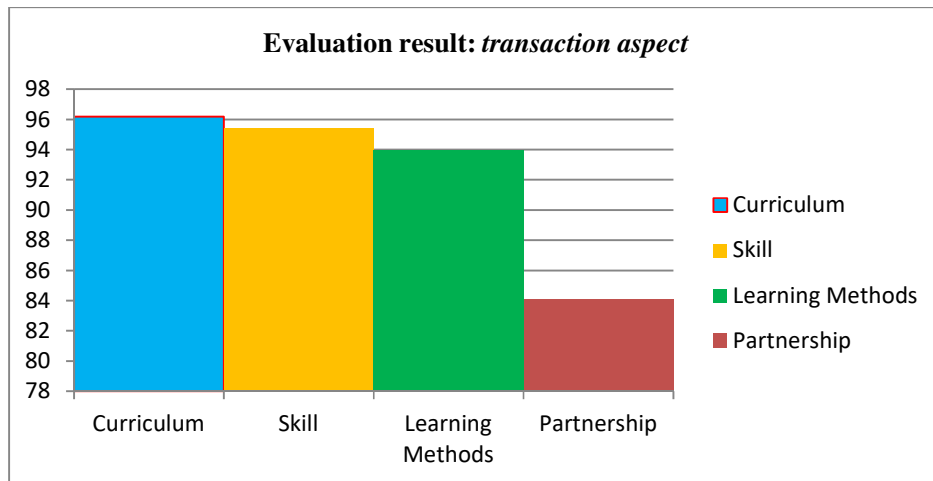


Figure 2 Transaction aspect evaluation result

From the above result, it is revealed that the actualization of the transaction of Adiwiyata Mandala program is mostly well-implemented.

Table 6 Evaluation result: outcome component

Evaluation Criteria	Total	Average
Achievement	118	89.39
Average		89.39

Table 6 reveals that the aspect of outcome is in the good category with a percentage of 89.39%. This signifies that one indicator within this study is in a good category. The result of the evaluation is provided in the following matrix table:

Table 7 Countenance Matrix: Outcome Component

Description Matrix		Judgment Matrix	
Intent	Observation	Standard	Judgment
Achievement The school is able to yield satisfying outcome and receive awards in environmental preservation	<ul style="list-style-type: none"> - The school environment is clean and tidy - The school receives an Adiwiyata award in regency and province level. - The actualization of accomplishment of school achievement (outcome) measures at 89.39%, good category. 	The school is expected to receive an independent Adiwiyata award from the government	The school is yet to receive national Adiwiyata or independent Adiwiyata award. In other words, the percentage of aspects that are not satisfied reaches 10.61%.

From the above result, it is revealed that the actualization of the outcome component of Adiwiyata Mandala program is mostly well-implemented. The result is provided in the following chart:

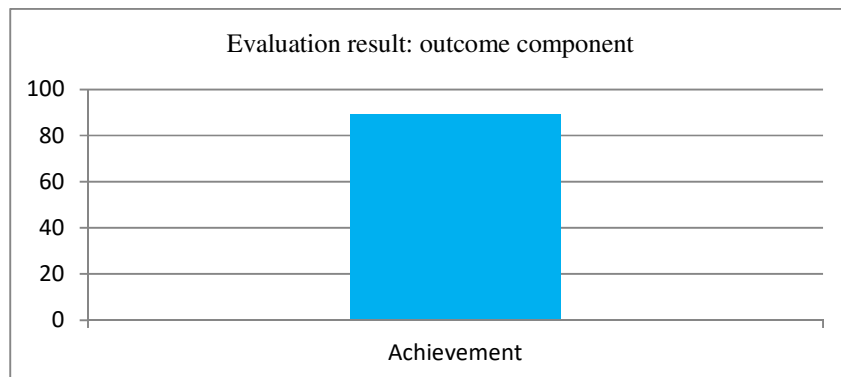


Figure 3 Outcome component evaluation result

Congruence. The result shows that all aspects of the implementation of Adiwiyata Mandala-based school program in Junior High School SMP Negeri 4 Wonosari, Boalemo Regency are well-implemented. This is represented by the percentage of achievement in aspects, i.e., antecedents, transaction, and outcome that measures at 89.13% (good category), 92.41% (very good category), and 89.39% (good category) respectively. In other words, the implementation of the program is considered effective. This result also applies to the level of program satisfaction. The achievement is seen from the condition of school that prioritizes environmental preservation principle, resulting in a clean and healthy atmosphere. Furthermore, the school also received an Adiwiyata award by the government which indicates the achievement of the school; such an achievement should be sustained and improved.

Contingency. The success of Adiwiyata program is determined by certain indicators; these indicators drive the school to establish a partnership and optimize the conduct of its program. The aspect of context and process should be synced with the outcome to determine the success of the program. The result of this present study shows that the context and process aspects are well-implemented, meaning that the objective and the output of the program are met. Furthermore, this study finds that the goal and target of Adiwiyata school program are categorized very well, signifying that the program is successfully implemented as all the indicators of the program are fully satisfied.

Conclusion

This research concludes that: The percentage of the context (antecedents) of Adiwiyata Mandala program in Junior High School SMP Negeri 4 Wonosari, Boalemo regency measures at 89.13%, very good category. All of the contexts are well-implemented. In addition, the percentage of the implementation (transaction) of Adiwiyata Mandala program in the research area reaches 92.41%, very good category as the processes within this aspect are well-implemented. The percentage of the outcome of Adiwiyata Mandala program measures at 89.39%, good category. This is because the program is successful and it satisfies the targets of the program.

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