

# An Analysis on the Effect of School Policy towards Teachers' Participation in Cleanliness Program at Schools Receiving Adiwiyata Award in Surakarta City, Indonesia

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## Abstract

*Adiwiyata refers to the Environmental Education developed by the Ministry of Environment and Forestry in cooperation with the Ministry of Education and Culture of the Republic of Indonesia through formal education. The program aims to encourage the creation of knowledge and awareness of school communities on environmental conservation efforts. The present study had the following purposes. First, it aimed to determine the effect of school policies towards the level of concern and participation of school teachers in the implementation of the school cleanliness program at schools receiving the Adiwiyata Award in Surakarta City, especially in 2016. Second, the study aimed to provide an overview based on the independent evaluation on the implementation of the school cleanliness program at schools receiving the Adiwiyata Award in Surakarta City, especially in 2016. The study was a quantitative descriptive study with a cross-sectional approach. Questionnaires were given to principals and teachers in Surakarta—as many as 53 schools received the Adiwiyata Award in 2016. Samples were taken by a proportional random sampling method; the study had 360 teachers and 53 principals so the total sample was 413 respondents. The data was analyzed using a multiple linear regression test with a t-test, F-test, and R-square coefficient of determination. The results were as follows. First, the 53 schools involved in the study had fulfilled the green school criteria as seen from the environmentally-friendly school policies, the environment-based curriculum, the participatory-based environmental activities, and the environmentally-friendly management of supporting facilities. The test results confirmed the significant influence of each of these Adiwiyata criteria on the implementation of the school policy involving the concern and participation of the school community (the principal, teachers, students, and the internal environmental organization). Second, the independent evaluation showed that the school community participated in the policy implementation related to the school cleanliness program and the program reached both the physical and non-physical environments; it also involved environmental components outside of the school, including the local community and the school committee. This could be seen from the management of environmentally-friendly supporting facilities, such as canteens and other supporting infrastructure.*

**Keywords:** school policy, Adiwiyata, participation, teacher

## 1. Introduction

Schools are social institutions playing such an important role in an effort to produce quality human beings; in other words, schools prepare students to become a strong, creative, and independent individual of professional excellence in their respective fields in the future. Schools are also a place for students to develop their intellectual intelligence and, more importantly, behavior to care for the environment

globally. Anijaobi et al. (2015) and Kensler (2013) show that the support of the principal or teachers and other school members determines the success of a school in becoming a green school as an effort to preserve the environment.

Since 2006, the Ministry of Environment and Forestry in cooperation with the Ministry of Education and Culture of the Republic of Indonesia has initiated the effort to encourage school communities to care more about the environment in the framework of environmental education through a program known as Adiwiyata. The program was developed in stages starting from the regency and municipality, provincial, national, and independent levels. The environmental education policy in Indonesia was started in 2004 and is carried out in formal, non-formal, and informal education. The Adiwiyata Program is designed for primary and secondary education, while the Green Campus Program is designed for higher education. In terms of non-formal and informal education, training involving community members has long become the main program to these days.

Adiwiyata then represents the Environmental Education developed by the Ministry of Environment and Forestry in cooperation with the Ministry of Education and Culture of the Republic of Indonesia through formal education. The program aims to encourage the creation of knowledge and awareness of school communities on environmental conservation efforts. The Adiwiyata Program was launched by two ministries under the Minister of Environment Regulation Number 2 of 2009 which was later revised by the Minister of Environment Regulation Number 5 of 2013.

Up to the present time, the Adiwiyata Program is volunteering and not mandatory in nature, so only schools with an environmentally-oriented vision and mission are doing it. Those schools are able to do the four (4) criteria of the Adiwiyata Program, namely: (1) environmentally-friendly school policies; (2) an environment-based curriculum; (3) participatory-based environmental activities; and (4) environmentally-friendly management of supporting facilities. The four criteria (of achievement) in fostering the Adiwiyata Program are evaluated annually; schools able to implement 80% of the four (4) criteria of achievement, or having a minimum grade of 72 out of the 80, are entitled to receive the National Adiwiyata School Award (KLH, 2013).

A school entitled as an Adiwiyata School is the one that cares about the environment (Kania and Rahmadhanita, 2017); referring to the 2016 Adiwiyata guide book, the purpose of the program is to create responsible school members in environmental protection and management through good school governance to support sustainable development. The implementation is submitted in accordance with school policies in each region or city and regency in Indonesia as stated in the Minister of Environment Regulation Number 5 of 2013 on guidelines for implementing the Adiwiyata Program.

Surakarta becomes one of the cities having some of its schools receive the Adiwiyata Award. According to the Surakarta City Environmental Agency, 53 schools received the Adiwiyata Award at the city, provincial, and national levels in 2016 (DLH Surakarta City, 2017).

Schools are able to implement the program through the policies in line with the vision and mission of the schools if all school members, including the principal, teachers, students, and school staff, support the policies and the program.

One of the ways teachers can do to support such a program is to set up their daily cleanliness schedule for the class they are responsible with as well as educating the students to not littering remembering that many students are not aware of this matter (Kadorodasih, 2017). Teachers, and other school members, can also donate stuff to help with the program, such as plants or cleaning equipment, as well as to share ideas to preserve the environment.

The objectives of this study are as follow: (1) To determine the effect of school policies towards the level of concern and participation of school teachers in the implementation of the school cleanliness program at schools receiving the Adiwiyata Award in Surakarta City, especially in 2016; and (2) to

provide an overview based on the independent evaluation on the implementation of the school cleanliness program at schools receiving the Adiwiyata Award in Surakarta City, especially in 2016. facilities, affect the participation of teachers in the implementation of the cleanliness program at schools receiving the Adiwiyata Award in Surakarta City?

## 2. Literature Review

### *Adiwiyata*

#### a. Definition

Adiwiyata means a good and ideal place where all knowledge and various norms and ethics can be obtained as the basis for human beings to create prosperity in life and to achieve sustainable development. The purpose of the Adiwiyata Program is to make school communities responsible for protecting and managing the environment through good school governance to support sustainable development (Adiwiyata Guide, 2013).

#### b. Basic Principles

The first is participatory, meaning that the school community is involved in school management, which includes planning, implementation, and evaluation process according to their responsibilities and roles. The second is sustainability, which means all activities must be carried out in a planned, continuous, and comprehensive manner (Adiwiyata Guide, 2013).

#### c. Criteria

To achieve the goals of the Adiwiyata Program, four (4) criteria are set up as one direction for a school to become an Adiwiyata School. They are: (1) the environmentally-friendly school policies, (2) the environment-based curriculum, (3) the participatory-based environmental activities, and (4) the environmentally-friendly management of supporting facilities.

#### d. Benefits

The followings are the benefits expected from the program as stated in the guidebook:

- to support the achievement of basic and standard competency and graduate competency for primary and secondary education;
- to increase the efficiency of the use of school operational funds through saving and reducing the consumption of various resources and energy;
- to create togetherness of a school community and to make learning more comfortable and conducive; and
- to increase environmental protection and management efforts through pollution control, damage control, and preservation of environmental functions in schools.

### *Policies of School Principals*

#### a. Definition

Fachrudi in Imron (2008) writes that policies are translated into *kebijakan* in Indonesian, while wisdom means *kebijaksanaan*. Wisdom refers to a series of concepts and principles that form the outline and basis of the plan in the implementation of a job, leadership, and how to act in an effort to achieve goals. A policy is a provision from the leader that is different from the existing rules, which are imposed on someone because of an acceptable reason for not enforcing the applicable or existing rules (Imron, 2008).

A policy also refers to the rules that must be followed indiscriminately, binding on whoever is intended to be bound by the policy. Meanwhile, according to Gamage and Pang in Syafaruddin (2008), a policy consists of a statement of objectives and one or more broad guidelines to achieve goals and to provide a framework for program implementation.

In Indonesian, the word *principal* is *kepala sekolah*, which consists of two words: *kepala* and *sekolah*. The word *kepala* means head or chairperson or leader, while the word *sekolah* means a school or an organization or an institution where teaching and learning take place (Wahjosumidjo, 2005). The word *leader* or *head* is defined as an ability and readiness of a person

to give influence, guide, and move or manage others so that they want to do the things needed for the achievement of common goals.

b. School Programs as the Implementation of School Principals' Policies

One of the implementations of the principal's policy is the implementation of government programs to create environmentally friendly schools through the Adiwiyata program stated in the vision and mission of the school.

**Participation**

a. Definition

Participation is a form of community involvement in any activity to achieve a goal, which can be in the form of suggestions, ideas, or material both directly and indirectly (Harahap, 2011).

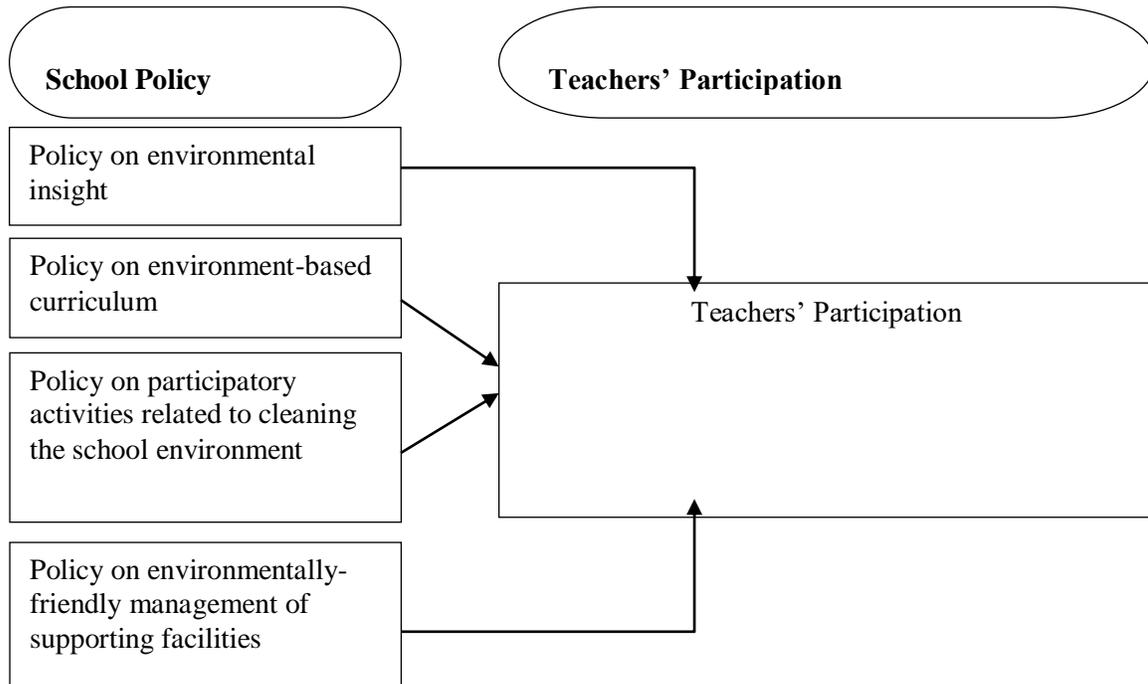
b. Types

1) Direct Participation: This takes place when individuals do certain activities in the process of their involvement, such as donating cleaning equipment and taking place in the cleaning program.

2) Indirect Participation: This happens when individuals delegate their right to be involved with other parties, such as giving ideas on the cleaning schedule or on the plan to greening the school area.

**Research Framework**

**Figure 1. Research Framework**



Based on the framework, the following hypotheses are proposed:

1. There is an influence of school policies on environmental insight against environmental awareness and participation of teachers in the implementation of the cleanliness program at schools.
2. There is an influence of school policies on environment-based curriculum against environmental awareness and participation of teachers in the implementation of the cleanliness program at schools.

3. There is an influence of school policies on participatory activities related to cleaning the school environment against environmental awareness and participation of teachers in the implementation of the cleanliness program at schools.
4. There is an influence of school policies on the management of environmentally friendly supporting facilities against environmental awareness and participation of teachers in the implementation of the cleanliness program at schools.

### 3. Method

The study was a quantitative descriptive study with a cross-sectional approach. Questionnaires were given to principals and teachers in Surakarta—as many as 53 schools received the Adiwiyata Award in 2016. Samples were taken by a proportional random sampling method; the study had 360 teachers and 53 principals so the total sample was 413 respondents. The data was analyzed using a multiple linear regression test with a t-test, F-test, and R-square coefficient of determination.

### 4. Results and Discussion

The findings confirmed that there was a significant effect of the environmentally-friendly school policies, the environment-based curriculum, the participatory-based environmental activities, and the environmentally-friendly management of supporting facilities towards teachers' participation as one of the criteria for the Adiwiyata Award. The results of statistical tests (partial t-test) are presented in Table 1.

**Table 1. The Effect of the School Policy towards Teachers' Participation in the Implementation of the Cleanliness Program**

Coefficients <sup>a</sup>							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	S	
	B	Std. Error					Beta
(Constant)	61	22.0	1.166	913	18.000	.	
1	Environmental insights	.393	.167	.299	52	2.3023	.
	Environment-based curriculum	.348	.147	.295	62	2.3022	.
	Environmental activities	.488	.208	.309	52	2.3023	.
	Supporting facilities	.417	.158	.340	45	2.6011	.

a. Dependent Variable: Role and participation of teachers

Environmental insight had a coefficient of 0.023 at a significance level of 5%; this means that the school policy affected teachers' participation. An environmentally sound policy is one component of the implementation of an environmental program to win the Adiwiyata Award. Environmentally-friendly policies become a reference in implementing environmentally-friendly activities in the Adiwiyata Program. Environmental management is one of the efforts made to overcome environmental damage and the scarcity of natural resources currently happening in Indonesia.

According to Arifin (2001), the management of the environment and natural resources must be done continuously within the harmony of scientific, ethical, and practical aspects. Anijaobi *et al.* (2015) mention that an organization with an environmental vision should have support from various elements or components within the organization. In addition, Kensler (2013) accounts that the role of the principal and the school community, especially teachers in supporting the environment in schools, will determine the success of school programs with environmental insights; that is, without the participation and concern of the principal and teachers, the implementation of the green school program will not succeed.

The environment-based curriculum had a coefficient value of 0.022 and a significance level of 5%; this means that the environment-based curriculum as a policy influences the role and concern of teachers in the implementation of the Adiwiyata Program. An environment-based curriculum contains efforts to protect and manage the environment delivered with a variety of strategies, methods, and learning resources by teachers at school. This is in accordance with the opinion of Fajarisma (2014) that a simple environment-based curriculum can be implemented by way of delivering environmental material through diverse activities to provide an understanding of the environment associated with everyday life.

Participatory-based environmental activities had a coefficient value of 0.023 and a 5% significance level; this proves that participatory-based environmental activities affected the role and concern of teachers in the implementation of the Adiwiyata Program. In the Adiwiyata guidebook (2016: 14), participatory-based activities are carried out with regard to two standards: (1) carrying out planned environmental protection and environmental management activities for school community and (2) partnerships in the context of environmental protection and management.

In the standard implementation of planned environmental activities for school residents, the school carries out several activities, namely: (a) maintenance of buildings and school environment through scheduled daily cleaning, for example cleaning the classroom, cleaning the fish pond, watering the plants, cleaning the toilets, collecting garbage, and recycling waste; (b) utilization of land and school facilities in accordance with the principles of environmental protection and management by building open green spaces, integrated bird parks, and fish ponds, planting shade trees, and managing waste management sites.

Facilities and infrastructure of environmentally friendly schools had a coefficient value of 0.011 and a significance level of 5%; this proves that environmentally friendly facilities and infrastructure affected the role and concern of teachers in the implementation of the School Adiwiyata. Facilities and infrastructure of the schools receiving the Adiwiyata Award in Surakarta had met environmentally friendly standards such as the availability of clean water and adequate sanitation, wastewater treatment, trash bins according to the type of waste, green open spaces, biopore, infiltration wells, composter, and clean and healthy canteen. The Adiwiyata guidebook (2016: 16) mentions that efforts to improve the quality of school canteens can be done by improving canteen services, for example, canteens should not sell food and beverages containing preservatives, thickeners, dyes, and flavors not in accordance with health standards, canteens must not sell contaminated or expired food, and canteen must not use environmentally unfriendly packaged foods such as plastic, styrofoam, and aluminum foil.

The results of simultaneous testing (F-test) on the effect of the four factors of school policy on teachers' participation in the implementation of the Adiwiyata Program in schools accepting the Adiwiyata Award in Surakarta City are presented in Table 2 below:

**Table 2. Simultaneous Testing (F-test) on the Effect of the School Policy towards Teachers' Participation in the Implementation of the Cleanliness Program**

ANOVA <sup>a</sup>							
Model		Sum of Squares	df	Mean Square	F		Sig.
1	Regression	21.019	4	5.255	4.298	b	.005
	Residual	58.692	48	1.223			

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Total	79.712	52
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a. Dependent Variable: Role and participation of teachers

c. Predictors (Constant): Supporting Facilities for the Environment, Environmental curriculum, Environmental Insight, and Environmental Activities

Simultaneous testing results (F-test) proved a simultaneous effect of environmental insight, environmental curriculum, participatory-based environmental activities, and environmentally friendly supporting facilities towards teachers' participation in the implementation of cleanliness at schools accepting the Adiwiyata Award in Surakarta.

The results of the study showed that green school policies had a significant effect on the awareness and participation of school members in implementing school cleanliness programs. Environmental management is one of the efforts made to overcome environmental damage and the scarcity of natural resources currently happening in Indonesia.

## 5. Conclusions

In general, these schools as the winner of the Adiwiyata Award had met the criteria of green school in terms of the environmentally-friendly school policies, the environment-based curriculum, the participatory-based environmental activities, and the environmentally-friendly management of supporting facilities. The results of the tests showed the significant influence of the Adiwiyata criteria on the implementation of the school policy that involved the participation and concern of the school community including the principal, teachers, students, and school staff.

The independent evaluation showed that the school community participated in the policy implementation related to the school cleanliness program and the program reached both the physical and non-physical environments; it also involved environmental components outside of the school, including the local community and the school committee. This could be seen from the management of environmentally-friendly supporting facilities, such as canteens and other supporting infrastructure.

The success of these schools in winning the Adiwiyata Award proved that they fulfilled the criteria of a green school mentioned in the four (4) policy components. This achievement could not be separated from the role of all school members both internally such as school principals, teachers, students, and other school members, and externally, such as the community around the school, parents, members of the school committee, and the government. Therefore, school leaders, in this case, principals need to always establish communication and good relations with all stakeholders and invite all stakeholders to participate and support school policies and programs aimed at protecting and preventing the environment through formal education channels in schools.

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