The Evaluation of Adiwiyata-School Program

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ABSTRAK

Berbagai persoalan lingkungan yang terjadi mulai dari pembuangan sampah, minimnya ruang terbuka hijau, polusi udara hingga perubahan iklim drastis yang menjadi salah satu krisis lingkungan terbesar di dunia. Penelitian ini bertujuan untuk mengevaluasi Program Sekolah Adiwidyata. Evaluasi dilakukan dengan menilai adanya kesenjangan/kesenjangan antara standar program yang diberikan pemerintah dengan kondisi aktual. Jenis penelitian ini adalah penelitian evaluasi program dengan Discrepancy Evaluation Model (DEM) yang dikembangkan oleh Malcolm Provus dengan 5 tahapan evaluasi yaitu desain, instalasi, proses, produk dan biaya-manfaat. Metode pengumpulan data dalam penelitian ini adalah wawancara, observasi, dan dokumentasi. Analisis data dilakukan melalui proses reduksi data, penyajian data, dan penarikan kesimpulan. Dalam proses penyajian data digunakan teknik persentase dan kategorisasi berdasarkan frekuensi dan tingkat ketidaksesuaian pada setiap tahap evaluasi. Hasil penelitian menunjukkan bahwa pada setiap 5 tahapan evaluasi, ketidaksesuaian berada pada kategori sangat rendah. Pada rancangan program tidak ditemukan ketidaksesuaian, ketidaksesuaian instalasi program dengan skor 12,5%, ketidaksesuaian proses mendapatkan skor 16,25%, ketidaksesuaian produk program dengan skor 16,67%, dan perbedaan cost-benefit sebesar 12,5%. Dalam lingkungan manajemen kolaboratif dan berbasis diskusi, guru perlu memecahkan masalah yang mungkin mereka hadapi dalam mengembangkan kegiatan pembelajaran terpadu.

ABSTRACT

Various environmental problems that occur range from the garbage disposal, air pollution, drastic climate change, and lack of green open space, which is one of the biggest environmental crises in the world. This study aims to evaluate the Adiwidyata School Program. Evaluation is done by assessing the gap between the standard programs provided by the government and the actual conditions. This type of research is a program evaluation-research using the Discrepancy Evaluation Model (DEM) developed by Malcolm Provus with five stages of evaluation, namely design, installation, process, product and cost-benefit. Data collection methods in this study were interviews, observation, and documentation. Data analysis was carried out through data reduction, data presentation, and concluding. In presenting the data, percentage and categorization techniques are used based on the frequency and level of discrepancy at each evaluation stage. The results showed that the discrepancy was in the deficient category in every five evaluation stages. In the program design, no discrepancies were found, program installation discrepancies with a score of 12.5%, process discrepancies scored 16.25%, program product discrepancies with a score of 16.67%, and cost-benefit differences of 12.5%. In a collaborative and discussion-based management environment, teachers need to solve problems in developing integrated learning activities.

1. PENDAHULUAN

The environment becomes one of the things that cannot be separated from the society's daily life which currently continues to be a topic that attracts public attention (Ahmad et al., 2015; Popandopulo et al., 2021; Wang & Liu, 2021). Due to its problem that concerns the lives of all creatures globally, the environmental issues have awakened the society full realization about the issues (Carling, 2021; Genc et

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al., 2018). Various environmental issues that occur ranging from waste disposal, the lacking of green space, air pollution to drastic climate change which has become one of the world's biggest environmental crises, become the real picture of our ailing earth. In Global Climate Risk Index stated that the earth continues to have desertification, drought and degradation that resulted in the rising of the global temperature along with the increasing of the extreme weather frequency and natural disasters that have a direct impact to every aspect of human life including the global food stocks, health, security and economic growth (Brauer et al., 2021; Li et al., 2021; Paul & Singh, 2020; Yang & Tang, 2021). This has become an urgency of the importance of environmental management and protection in order to preserve the environment itself. It is a mandatory that everyone pays attention to the environment for it is an important and crucial element to support the survival of every living thing (Basri, 2017; Rovers et al., 2018; Toraman & Altun, 2013).

Humans are one of the determining factors in the environmental conservation efforts, and having a big role and responsibilities to empower environmental wealth for the survival of this earth (Lizana et al., 2021; Soleh & Zainiyati, 2020). In reality, the desire to fulfill satisfaction and daily needs often becomes one's trigger to over-exploit the natural resources and tends to be destructive that may bring negative impacts to the environment (Carling, 2021; O'Brien et al., 2020). The lack of environmental awareness becomes a critical element that may lead to various environmental problems (Carling, 2021; Nuswowati et al., 2017; Roth, 2019). The main root of the environmental crisis problems lay on the unequal structure of human life values in interacting with the nature. The environmental issues are basically connected to the moral issues which are related to human behavior that has become a global problem. Therefore, serious efforts are needed in order to build the ethics and morality especially in increasing the awareness of the importance of the environmental conservation (Buchanan et al., 2019; Pane & Rina Patriana, 2016).

Responding to various environmental problems, Indonesia's government launched the Environmental Protection and Management Acts (EPMA). The EPMA or PPLH is considered as the form of the government's commitment to cope with environmental problems in order to support sustainable development (Giyarsih, 2015; Mulyaningsih et al., 2017; Wibowo et al., 2012). One of the government's policies related to environmental protection and management is through Environmental Education or PLH. The government sees that the effort of preventing the environmental problems could be done by educating the society about the protection and management of the environment. The environmental education has become a very required tool in order to battle the environmental degradation (Buchanan et al., 2019; Genc et al., 2018; Pane & Rina Patriana, 2016). A for the aim of conducting the environmental education is to increase the knowledge and environmental awareness so the society has responsibilities to utilize the environment wisely, creating environmentally-friendly behavior, as well as developing the environmental ethics that basically a form of efforts to conserve the environment (Emilzoli et al., 2021; Zaenuri et al., 2017). Therefore, PLH is expected to be an effective solution in order to raise the knowledge and understanding of the society about the preservation of environmental functions.

In its implementation, policies regarding environmental education are actualized in various programs, one of which is through the "Adiwiyata-School" program. The Ministry of Environment and Forestry in collaboration with the Ministry of Education have developed the Adiwiyata program as one of the environmental management efforts to be implemented in schools. One of the schools in North Toraja that applies Adiwiyata-School Program is SMP Negeri 2 Balusu. Starting from the desire to cultivate the environmental care values to all of the school community members, especially the students as the next generation, the school fully realized that it plays a big role in order to actualize this purpose. With this reason, SMP Negeri 2 Balusu decided to implement the Adiwiyata-School Program and committed to encourage the school community members to become environmentally friendly individuals and having the environmental care characters. In the first observation, it was found that the school has never been done any comprehensive evaluation of the input, process and output of the Adiwiyata-School Program.

The need for evaluation is carried out as a follow-up to the implementation of the program in order to understand the program's sustainability, obstacles, and other accurate and objective information related to program implementation which can ultimately provide input for making decisions on the program sustainability (Ertikanto et al., 2017; Pan et al., 2021; Tempelaar, 2019). The findings of previous studies also stated that an evaluation of a program is needed in order to decide the succeed level of the ongoing program to the determined goals so that it may give recommendation for a better program sustainability (Michael Saenz, Marlen Promann, Alaina Creager, 2018). In connection with the implementation of the Adiwiyata-School Program, the evaluation aims to measure the extent to which the Adiwiyata Program is being run by the school towards the objectives to be achieved. The results of the Adiwiyata Program evaluation are needed to provide information related to program implementation, then provide input on the sustainability of program implementation in schools. Based on the background of the research above, the researcher interested in doing the research about the evaluation of Adiwiyata-

School program at SMP Negeri 2 Balusu. This research was focused to do an evaluation of *Adiwiyata*-School program with Discrepancy Evaluation Model (DEM). The Discrepancy Evaluation Model is one of many evaluation models that emphasize the intention to evaluate whether the determined level of the program actual implementation is correspondence to the existing standards, through five stages of evaluation which are design, installation, process, product, and cost-benefit (Arikunto & Jabar, 2014). This model was chosen as the reference in doing the *Adiwiyata*-School program evaluation due to its compatibility to reveal the facts or realities of the ongoing program at school in comparison to the program standards. In the end, it can be seen how far the *Adiwiyata*-School program has been achieved at SMP Negeri 2 Balusu and the follow-up to the program.

2. METODE

This research is an evaluative type of research that aims to evaluate the implementation of *Adiwiyata*-School program at SMP Negeri 2 Balusu by analyzing the discrepancies between the actual implementation of the program at school with the program standards that in the end would be resulted in recommendations for the program's sustainability. The research was done with Discrepancy Evaluation Model by Malcom Provus with five stages of evaluation, which are design, installation, process, product, and cost-benefit (Wirawan, 2012). The research was done at SMP Negeri 2 Balusu, form October 2020 to March 2021. The subjects of the research are the School's Principal, the Head of *Adiwiyata* Program, the School's Vice Principal, the Curriculum Department, Facilities and Infrastructure Department, Teachers, Treasurer of the program, Students, and Staffs. The subjects of this research are considered suitable to provide the accurate and objective information needed by the researcher. The data collection method was done by studying the documents, observation, as well as in-depth interview with the subjects related to the research. In order to validate the data, the data source triangulation technique and the triangulation technique/method are used. The data then were analyzed by the data reduction process, data presentation, and drawing conclusions. In data presenting process, percentage and categorization technique were used. The data resulted from the interview were arranged into a table, presented and categorized based on its frequencies and discrepancy rates, by using the following scales: a) discrepancy rate 1% - 20%: Very Low; b) 21% - 40%: Low; c) 41% - 60%: Medium: d) 61% - 80%: High; and e) 81% - 100%: Very High.

3. HASIL DAN PEMBAHASAN

Hasil

The Adiwiyata School development program according to the standards in the Adiwiyata Guidelines by the Ministry of the Environment refers to four basic components which include: environmentally friendly policies, environment-based curriculum, participatory-based environmental activities, and management of environmentally friendly supporting facilities. The four components are standards that have been set by the Government and subsequently become a reference for schools in implementing the *Adiwiyata*-School program. Furthermore, in the previous section it has been explained that the evaluation of the *Adiwiyata*-School program at SMP Negeri 2 Balusu uses the Discrepancy Evaluation Model (DEM). Based on this DEM model, evaluation is grouped into 5 stages, namely evaluation of design, installation, process, product, and cost-benefit. The following is a description of the results and discussion of the evaluation of the *Adiwiyata*-School program at SMP Negeri 2 Balusu for each stage. The evaluation at this stage will compare the design of *Adiwiyata*-School Program designed by the school with the ones designed by the Government based on the standard provision of the program. The four components of *Adiwiyata*-School Program as previously mentioned will be seen whether or not have been included in the program plan designed by the school. The average discrepancy rate of the product aspect of *Adiwiyata*-School program is **0**, in other words, the compatibility rate between program design created by the school with the program design according to *Adiwiyata*-School standards is **100%**. It means there were no discrepancies between the design of *Adiwiyata*-School program designed by SMP Negeri 2 Balusu and the program design according to Government standards. The performance of SMP Negeri 2 Balusu in the aspect of program design has been going very well. From 4 components of design aspect of *Adiwiyata*-School program starting from environmentally friendly policies, environmentally-based curriculum, participatory-based environmental activities, and management of environmentally friendly supporting facilities, have been all included in program design created by the school.

The design on environmentally friendly policies components has been fulfilled by the school. From 4 indicators, everything has been included in the planned program designed by the school started from: the development of vision and mission related to EPMA, development of an integrated

environmental curriculum, compulsory or *mulok* subjects related to the environment, and development of RKAS containing EPMA. In the components of environmentally-based curriculum, there were 8 indicators which have been included in the planned school program, started from: implementation of active learning strategies, development of materials, indicators and learning instruments related to the environment, preparation of lesson plans, society participation in learning related to the environment, communicating learning innovations by teachers, application of environmental knowledge by students, and communicating the results of environmental learning to students. The components of participatory-based environmental activities have been fulfilled by the school in which from the existing 10 indicators, everything has been included in the planned program created by the school starting from environmental maintenance activities, use of land and facilities in accordance with environmental protection rules, development of extra-curricular activities in accordance with EPMA, creativity and innovation activities, environmental action activities, use of informants, support from school partners, increasing the role of committees, becoming informants for learning about the environment, and provide support for enhancing EPMA. The components of management of environmentally friendly supporting facilities have been also fulfilled by the school in which from 6 existing indicators, everything has been included in the planned program designed by the school started from procurement of supporting facilities and infrastructure to prevent environmental problems, enhancement of maintenance and management of facilities and infrastructure, efficient electricity use, water, stationery, as well as improving the quality of healthy canteens. From the description above, it could be concluded that the designed *Adiwiyata*-School Program created by SMP negeri 2 Balusu is in accordance with the standards of *Adiwiyata*-School Program. Therefore, the research can be proceeded to the next stages of evaluation by referring to the design of the school program or the standard of the *Adiwiyata*-School Program.

The evaluation at this stage will compare the installation (supporting capacity) of the *Adiwiyata* program available in school with the carrying capacity of the program implementation based on the standard provisions of the *Adiwiyata*-School Program set by the Government. The installation in *Adiwiyata*-School Program consists of Curriculum, Human Resources, Funding, as well as facilities and infrastructure. The average discrepancy rate of the installation aspect of *Adiwiyata*-School program is **12,5%**. This discrepancy data is in the **very low** category which means the school has fulfilled most of the components on the installation aspect of the *Adiwiyata*-School program based on the standard provision. In other words, SMP Negeri 2 Balusu has had the proper installation to support the implementation of *Adiwiyata*-School Program. However, there were discrepancies found in one aspect of the installation namely related to funding. The evaluation at this stage will compare the actual implementation process of the *Adiwiyata*-School program in school with the implementation process planned by the school or according to the existing standards. Based on this, before the implementation of *Adiwiyata* program, SMP Negeri 2 Balusu has done socialization to the related parties including students, teachers, staffs, committees, as well as the society. The process of implementing the *Adiwiyata*-School Program at SMP Negeri 2 Balusu is integrated into 4 components in accordance with the existing standard plans and provisions, including: environmentally friendly policies, environmentally-based curriculum, participatory-based environmental activities, and management of environmentally friendly supporting facilities. The average discrepancy rate of the installation aspect of *Adiwiyata*-School program is **16,25%**. This discrepancy data is in the **very low** category which means the school has fulfilled most of the components on the process aspect of the *Adiwiyata*-School program based on the standard provision.

The evaluation at this stage will compare the actual achievement of the *Adiwiyata*-School program goals in school with the achievement of program goals expected by the school. The purpose of the *Adiwiyata* program at SMP Negeri 2 Balusu is to create a school with an environmental culture which is reflected in the attitude of caring for the environment, structuring the school environment, and efforts to prevent environmental pollution. The average discrepancy rate of the product aspect of *Adiwiyata*-School program is **16,67%**. This discrepancy data is in the **very low** category which means the school has fulfilled most of the components on the product aspect of the *Adiwiyata*-School program. In other words, most of the purposes of the *Adiwiyata*-School program has been achieved by SMP Negeri 2 Balusu. However, there is still a discrepancy in one aspect of the product, namely the concern for school community, especially in terms of awareness of the importance of protecting the environment. The evaluation at this stage will review the efficiency of The *Adiwiyata*-School program by analyzing the costs with the benefits obtained during the program implementation. The average discrepancy rate of the cost-benefit aspect of *Adiwiyata*-School program is **12,5%**. This discrepancy data is in the **very low** category which means the school has fulfilled most of the components on the cost-benefit aspect of the *Adiwiyata*-School program. In other words, the implementation of the program was conducted efficiently and the benefits obtained by the school have been proportional to the costs incurred.

Discussion

The EPMA or PPLH is considered as the form of the government's commitment to cope with environmental problems in order to support sustainable development (Kusniati et al., 2021; Mulyaningsih et al., 2017). One of the government's policies related to environmental protection and management is through Environmental Education or PLH. The government sees that the effort of preventing the environmental problems could be done by educating the society about the protection and management of the environment (Bahari et al., 2018; Dewanti et al., 2016; Sumarmi, 2016). The environmental education has become a very required tool in order to battle the environmental degradation. A for the aim of conducting the environmental education is to increase the knowledge and environmental awareness so the society has responsibilities to utilize the environment wisely, creating environmentally-friendly behavior, as well as developing the environmental ethics that basically a form of efforts to conserve the environment (Maciel et al., 2021; Suárez-Perales et al., 2021). Therefore, PLH is expected to be an effective solution in order to raise the knowledge and understanding of the society about the preservation of environmental functions. In its implementation, policies regarding environmental education are actualized in various programs, one of which is through the "*Adiwiyata*-School" program. The Ministry of Environment and Forestry in collaboration with the Ministry of Education have developed the *Adiwiyata* program as one of the environmental management efforts to be implemented in schools (Asyifa et al., 2019; Desfandi et al., 2017). *Adiwiyata* means a good and ideal place to obtain all knowledge and various norms and ethics which can be the basis of human beings towards the creation of life welfare and the ideals of national development goals (Azrai et al., 2017; Siti Nurwaqidah & Suciati, 2020). This program was first launched by the government in 2006 in order to encourage the creation of knowledge and awareness of responsible school community in environmental conservation efforts through well-supported school governance development (Supriadi, 2020; Tompodung et al., 2018).

The implementation of an environmental-based curriculum in accordance with the provisions in the *Adiwiyata* consists of 8 standards, including: 1) implementing strategies, active/participatory learning methods; 2) developing environmental-integrated materials; 3) developing environmental learning indicators and instruments; 4) preparation of environmental-related RPP; 5) involving the society in environmental learning; 6) communicating the learning innovation by teachers; 7) implementing the environmental knowledge by students; and 8) communicating the results of environmental innovative learning by the students. In its implementation, SMP Negeri 2 Balusu has fulfilled 6 out of 8 existing standards. As for the discrepancies were found in the standards of involving the society and communicating the environmental learning innovation. Even though discrepancies were found in these two aspects, the school continuously tried to maintain the environmental-based learning to be instilled in students, who are expected to share their understanding to their parents in their surroundings, broadly, to be applied in the society. Environmental education is very important in supporting the knowledge related to environmental conservation and management those students gain at school can be passed on by parents in their home environment (Kibbe et al., 2014; Taimur & Sattar, 2018; Tompodung et al., 2018).

Regarding the costs used by the school in order to implement the *Adiwiyata* School, the result of this research shows that SMP Negeri 2 Balusu is continuously allocated funding to finance the *Adiwiyata* program since 2017 until now. Although the school itself has spent much funds for the *Adiwiyata* program, the school finds that the benefits obtained from the program are comparable with the costs incurred. Moreover, the school funds are basically intended for the development of the better version of the school itself. Therefore, as long as the program conducted in order to develop the school, along with the collaboration of everyone involved, the program surely will be resulted in a very good way. The implementation of *Adiwiyata*-School program also embodies the school role as a forum for character building, especially the environmental care character through the habituation and example that shows the school's ecological character (Asyifa et al., 2019; Desfandi et al., 2017; Sulistiyoningsih et al., 2015). From the description above, it could be concluded that the costs incurred by the school for the *Adiwiyata* program are comparable with the benefits obtained from the program. The *Adiwiyata*-School Program has given many positive impacts for SMP Negeri 2 Balusu, not only in the school physical aspects that getting better, but the most important of all is to build the environmental care character of the school community. The results of previous studies stated that the main thing in the implementation of the *Adiwiyata*-School program is a change in behavior towards a better direction, namely the habit of caring and being environmentally cultured (Siti Nurwaqidah & Suciati, 2020; Supriadi, 2020; Tompodung et al., 2018).

4. SIMPULAN

Implementing the Adiwiyata School program at SMP Negeri 2 Balusu has been carried out well, although it has not yet fully achieved the predetermined target. From each of the five stages of the evaluation carried out in the study, which varied from design, installation, process and cost-benefit, the percentage difference was low so that it met most of the indicators of the five stages of evaluation. However, improvements and improvements in the management of environmental-based curriculum components and participatory activities are needed. In a collaborative and discussion-based management environment, teachers need to solve problems they may face in developing integrated learning activities.

5. DAFTAR PUSTAKA

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