

Optimization Greening in Elementary Schools Build Culture Care Environment

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DOI : -



Sections Info

Article history:

Submitted: November 30, 2025

Final Revised: December 15, 2025

Accepted: December 25, 2025

Published: January 04, 2026

Keywords:

Adiwiyata

Environmental care

School greening

ABSTRACT

Objective: The school greening program was created to create a clean, cool, and comfortable environment for students. This study aims to determine how to optimize the greening activities carried out at SDI Taman Quranyah. **Method:** This research method is descriptive qualitative with data collection techniques carried out by observation, interviews, and documentation. **Results:** The results of this study indicate that several methods are carried out by SDI Taman Quranyah through several ways, namely: 1) forming a school greening team consisting of the principal, treasurer/secretary, team coordinator, and field implementation team; 2) vertical gardens as a solution to the limited school land; 3) maximizing the maintenance of shade trees in schools; 4) integration of greening with learning; 5) utilization of recycled materials from used materials; 6) empowerment of students and parents in maximizing the school greening program. **Novelty:** The optimization of school greening activities is demonstrated through the integration of organizational structuring, land-use innovation through vertical gardens, learning-based greening integration, utilization of recycled materials, and active empowerment of students and parents in the school greening program.

INTRODUCTION

Guard school environment is task all residents who are at school. Even though Still There is students who feel that guard environment No Again task they but throw his duties as a guard the school that made him also throw task guard environment school to the other party [1] . One of methods used by schools to ensure that students can more love environment and minimize impact damage environment is with do education environment since school the basis that can influence development pattern he thought about environment [2] .

Awareness will behavior care with school environment base can done with holding a greening program at the school is expected can grow awareness student to environment as well as become caring person with environment [3]. Greening program This was also done at the SDI Taman Quranyah which was created as one of the culture to environment, especially in the environment school.

Study previously from study This is 1) research about the care program to school environment or known with the Adiwiyata program show positive achievements For build culture care to environment [4]. 2) research second about character care environment through the Adiwiyata program show existence combination learning with actions that become method effective For change behavior somebody For care to environment [5]. 3) research third study about method develop students to care to

environment through the greening program carried out with planting tree spruce and make park with utilise bottle and used tires as a pot [6]. Based on study previously this, researcher in study This explain about ways optimize reforestation school that is carried out together with all inhabitant schools, especially at SDI Taman Quraniyah.

RESEARCH METHOD

Study This use method descriptive qualitative For describe more in about implementation activity greening at SDI Qur'aniyah subdistrict Jagakarsa West Tanjung village.

data collection technique used is 1) observation, used by researchers. For observe direct activity greening and behavior student in guard greening in schools ; 2) interviews, used by researchers For get data from teachers and student about activity greening in schools; 3) documentation, used by researchers For get Photo related activities with greening in schools.

Data analysis is used with method describe and interpret results observation field, interview and documentation For can concluded about planting and care greening at school.

RESULTS AND DISCUSSION

Results

Greening program carried out at SDI Taman Quraniyah get support from all parties. Formation team greening consisting of from all school stakeholders also facilitate implementation of this program.

Team formed by the school consists of on head school as guarantor answer program implementation. Secretary / treasurer section assisting with administrative processes, both in the form of document and budget for the school greening program. Team coordinator section on duty help connect all activity can walk smooth, like connect activity new to head school to be able to decided as policy Then socialized to all part. While part team implementer field consisting of from teachers, students and parents also play a role important For implementation overall greening program in schools.

Limitations land school make party school take solution with make indoor vertical garden Maximizing the greening program at SDI Taman Quraniyah. Types of vertical gardens available at the school This namely : a vertical garden in the form of rack arrange made from PVC pipes, vertical gardens are made from bottle used, and vertical gardens made from hanging pots.

Tree The school 's patrons also do it school become more shady, cool, and increase quality air around school. Tree protectors at school This consists of on rambutan tree, tree guava, and trees mango.

greening program at SDI Taman Quraniyah is also integrated in learning that makes environment school as source inspiration in learning and making closed bottle used as creation in make collage. Close bottle used This used in learning as well as effort For learning recycling repeat in guard environment to remain clean.

Students, parents and the community are also empowered in the greening program school, where students are here play a role important in maintaining the greening program This still walk smoothly according to with teacher's instructions. Parents also play a role in make this program a success, not only become supporters but also plays a role active in planting seeds plant or help complete need greening.

Discussion

Formation of the School Greening Team at Taman Quraniyah Elementary School

Create activity based environment needed participation from all over inhabitant school [7]. Because that, SDI Taman Quraniyah form team reforestation schools that were formed through meeting with the head schools, teachers and representatives students. Formation team This is action carry on from the greening program schools that have implemented since beginning year even semester academic year 2024-2025.

In the process of its formation, the head school give direction to all over inhabitant school about importance reforestation with the agenda of the clean Friday activities carried out every Sunday. Activities This carried out at SDI Taman Quraniyah aim For create beautiful park and clean environment.



Figure 1. Socialization of the greening program.

Following arrangement team reforestation School at SDI Taman Quraniyah :

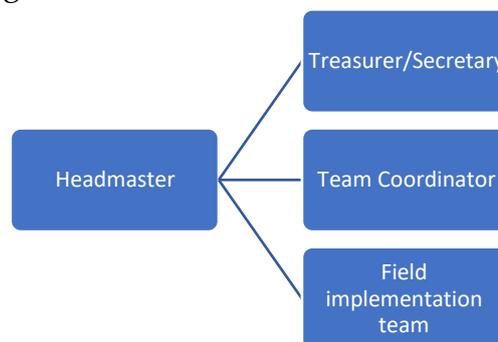


Figure 2. School greening team.

Task Headmaster

In the arrangement above known that head school play a role as the guarantor answer overall greening program schools, including determination policy reforestation school, such as set reforestation school as a mandatory program. Policy from school This

become very important For support implementation activity education environment life shared by all inhabitant school [8], such as wisdom about areas that are greened include places parking, front canteen school and field page school.

Head the school also agreed plan activity activity reforestation school For increase concern student to greening in schools and providing directions to the class teacher to direct his students For plant 1 tree papaya in front page school, so that someone is digging holes, planting and watering plants, as well as motivation to all over member team For push student that One trees planted by students beneficial For air immediately for all over inhabitant school.

In the greening program at the school, the principal The school also carries out monitoring and evaluation done For evaluate successful activities What only and identify necessary aspects noticed For in the future [9]. Monitoring and evaluation This done through meeting monthly with coordinator team For review development of greening program and obstacles that occur, such as lack of maintenance plants and limitations tool For planting. Some things to do monitored and evaluated namely: checking fertility plants and humidity land each week, or pot damage.

Task Team Coordinator

Coordinator team own task compile plan Work greening, schedule distribution task bring in accordance type plants, namely : class 1 carries seeds tree orange, class 2 brings seeds tree avocado, class 3 brings seeds paper flower tree, class 4 brings seeds chili, class 5 brings seeds papaya tree, and class 6 brought bit tree plant decorate.

Following timetable distribution his duties :

Table 1. Distribution schedule task.

Day	Class	Accompanying Teacher	Task
Monday	3	Mrs. Zubed	Water front area plants office and collect leaf dry
Tuesday	4	Mrs. Fifi	Weeding weeds in the tree area protector
Wednesday	5	Mr. Rasyit	Water plants and provide fertilizer compost
Thursday	2	Mrs. Ayu	Observing damaged and diseased leaves Because Still Lots students who have not understand method nurse plant with Good Sweeping the garden area and replacing
Friday	6	Mrs. Hijrah	damaged plants, such as tree dead Because land dry and lacking watering

Based on the schedule above show that behavior care environment need attitude consistent especially in the aspect watering, caring for plants, participate in greening, as well as guard cleanliness school [10]. The existence of the above scheduling No will bother learning, because the above activities done during break time and need time approximately ± 10 minutes only. Apart from being carried out routinely from Monday

-Thursday, activities maintenance reforestation was also carried out on Friday morning before the lesson starts or after end of the lesson, because time free time regarding the lesson is on Friday, namely every Friday after Dhuha prayers, regular cleaning such as : folding carpet, sweeping pages, and work Joint service.

companion teacher in each activity maintenance plant show that the teacher is not only direct but also provide exemplary behavior in move student For become caring person with environment around school, with follow participate in maintain and preserve environment For balance surrounding ecosystem school [11].

Coordinator the team also organizes implementation activity planting, such as determine location planting, such as : in the yard school. In addition, the team coordinator also determines type plants to be planted, like paper flowers. Maintenance plants, such as watering is done every Morning at 07.00 WIB, revoke one weed Sunday once, sweep the yard area school every break time first, and take leaf dry falling also becomes not quite enough replied the team coordinator.

Coordinator the team also became connector between head schools, teachers, students and parents, such as when There is plants that are starting to grow withered Because lack of water, then the team coordinator will connect to head school so that the principal school can instruct to the teacher for arrange timetable watering additional. This is followed up by the teacher with do mentoring watering with students Then recommend type fertilizer certain For maximize growth plant until send type the fertilizer to parents ' WA group and the next day parents ' day come with bring fertilizer recommended by the teacher school as form support for greening programs in schools.

Through approach ecological pedagogy in education environment, behavior all over war school expected will change and emerge awareness ecologically implanted through experience real through activity greening in schools, and not only theory only [12]. So that student expected can float greater understanding Good about environment, as well as prepare student For Ready face challenge sustainability in the future [13].

Task Secretary and Treasurer

Secretary and treasurer on duty For take notes all activity agendas greening, arranging as well as documenting report administration and finance. This section also manages funds and ensure need tool or materials used For plant can sufficient, such as hoe, shovel, fertilizer and plant pots.

Monitoring and financial documentation, such as : attendance attendance, documentation activities and storage proof transaction sell buy like receipt is also done by the section This section is also tasked with report to head school use of BOS funds used For purchase seeds, fertilizers, and tools need For gardening.

Duties of the Field Implementation Team

Implementation team field consisting of from teachers, students and parents. Teachers are on duty For determine type suitable plants with condition school, how to maintenance and care.

Student on duty planting and maintaining plant regularly according to timetable the picket that has been determined. Through timetable greening at school this, students

No only Study understand draft preservation environment only, but students also apply habit house environment in life everyday [14].

Parent on duty give support to his son to follow activity reforestation carried out by the school. In addition, parental contributions in the form of seeds plants are also one of the parental support provided to school For the smooth running of this program.

Limited Land Utilization Through Vertical Garden System at SDI Taman Quraniyah

Greening program carried out at SDI Taman Quraniyah this is also done on land limited school with an area of $\pm 300\text{m}^2$. Because that, school make park vertical as an effective solution For still present green environment even on land narrow. The following is an overview of the vertical garden at SDI Taman Quraniyah :

Vertical gardens are built in several places at school, namely :



Figure 3. Vertical garden in the form of rack arrange from the pipe.



Figure 4. Vertical garden from used plastic bottles.



Figure 5. Vertical garden from hanging pots.

Planting plant decoration using hanging pots will save room so that solution limited space will completed with using hanging pots made of plastic [15].

Container or planting medium above chosen Because No eat many places. In the process of making vertical garden above, students involved direct in preparation of planting media, planting seeds, care plants, up to watering. Selected plants For park vertical this, such as : paper flowers, chilies, and plants decoration others who don't too much Lots need water as well stand to hot.

Tree Protector As Strengthening Function Ecological at SDI Taman Quraniyah

Planting tree can absorb incoming rainwater to land and reduce incoming water flow to the river so that can overcome overflow floods on the River [16]. Likewise with planting trees around school can increase quality air Because can absorb oxygen and carbon dioxide, so that can help reduce temperature heat all around school and create environment cool and comfortable school [17].

Various type tree protectors in the SDI Taman school area Quranic, such as : rambutan trees, palm trees guava and tree mango.



Figure 6. Shade Trees : Rambutan, Guava and Mango.

Treatment performed schools nearby tree protector is clean the surrounding area tree protector, take leaf dry all around tree protector, do pruning of dry branches. Planting tree protector This play a role important in strengthen function ecological school especially in provide shade school and improve quality the surrounding air school.

Integrate Activity Greening School with the Learning Process at SDI Taman Quraniyah

Activity greening at SDI Taman Quraniyah integrated with classroom learning, one of which is in the Arts, Culture and Crafts (SBDP) subject. In this lesson, the teacher instructs student For make collage a flora or flower. Make collage No only make student Study about art as well as collage techniques, but also will practice student in control fine motor skills, creativity, and ability in working, good in a way independent and in a way collaboration with his friends [18].

Stage First : the teacher ensures all tools and materials (glue, scissors, origami paper, lid bottles and paper patterned) for make collage complete. Students Then listen explanation from the teacher about the steps make collage from closed bottle and observe for example like flowers.

Stage second : the teacher guides student in determine which flora or flowers will be draft in make collage this, for example method good sticking, and guiding during the

work process collage. One of them use closed bottles made use pattern picture the base of the flower that has been prepared by the teacher beforehand.

Stage third : the teacher directs student For cutting paper size small, then smear glue little by little on the pattern and the last one stick closed bottle on material as material manufacturing collage. At this stage This teacher also gives input to student For No stick go out from pattern image and make sure student stick with neat. Activities students who cut, assemble and build pieces small so that form pattern this is what makes student practice fine motor skills [19].



Figure 7. Collage closed bottle.

Stage fourth : the teacher walks from table to table For monitor Work student as well as push student For finish work collage from closed bottle. In addition, the teacher also checked whether student Already follow instructions from the teacher or not yet. The teacher also observed method student in cutting and arranging material with neat.

Stage fifth : the teacher assesses work students, starting from the work process, creativity, neatness, and accuracy. the criteria used by teachers in evaluate This is as following : pieces neat and not torn, placement material balanced so that the attached material can evenly, not untidy Because material pasted with neat in accordance with sketch images and not pile up Because No each other sticking and too thick, and results collage in accordance with theme.

Some tips given by the teacher for finish collage This as following : the pieces small and not torn, using just a thin layer of glue Then use finger For flatten it, stick it on No stacking, cleaning the work area, and any unnecessary pieces used Can direct thrown away.



Figure 8. Collage results student.

Activity integrated greening in learning will make student learning SBDP based lessons environment, namely approach in the wider world of education emphasize on involvement student in a way direct with use environment as source learning [20]. Source directly used by students in make collage This is plants around school that was used inspiration by students in do tasks and close bottle as material used waste For manufacturing collage. Use of learning media as well as source close learning with the surrounding environment student can increase understanding as well as concern to environment [21].

Utilization of Recycled Materials in Realize Greening in SDI park Quranic

One of activities that support the greening program at SDI Taman Quraniyah is with make creation from material recycling repeat. The method used by teachers to utilise material recycling repeat, as following : 1) students gather bottle plastic used from each student's home or environment surrounding area ; 2) cleaning bottle used and dry it to be safe used ; 3) forming bottle in accordance the design that has been made in accordance with size bottle ; 4) decorate or strengthen part bottle with use cloth flannel and rope ; 5) show off the result become A bench (seat).



Figure 9. Recycling rubbish plastic bottles.

Based on observation from researchers show that 30% of students Not yet follow participate in support activity reforestation school including throw away rubbish out of place. As many as 70% of students Already carry out with Good utilization recycling

repeat this. Recycle from bottle used This used For made into sitting chair. Activities students who change rubbish become goods that have aesthetics can practice students ' social sensitivity to management plastic waste [22].

Empowerment Students, Parents in Activity Greening at SDI Taman Quraniyah

Greening program at SDI Taman Quraniyah This show positive results caused by there is cooperation from various party. Students who always guided and directed For love environment through various maintenance and care plants around school make student follow play a role as well as active in guard the environment at his school, even There is students who with voluntary donate pots to plants. This is show that student Already own love to greening in the environment his school. Because of that that, through the greening program school This can increase understanding student to function ecological plants [23], namely apply outlook about environment as well as preservation environment life [24].

School appreciate the students with give rewards to student with grouped from grade 2 to grade 6 in matter nurse plants. 1st place is awarded to grade 4 which has follow directions from the teacher with Good start from method planting, watering and giving fertilizer for plants until win race planting and care plants. Gifts to student class 4 is given during the farewell event class 6 for motivation For nurse plant with Good This No only grew up in 4th grade only but also motivation This can growing in all inhabitant school.



Figure 10. Awards Planting and Care plant class best.

Parent play a role important For support program greening in schools. Even in the planting process trees at SDI Taman Quraniyah, parents also participated as well as in the planting process plants and supplies material as well as tool in the process of planting. Parents student donate 10 seeds plant protectors and paper flowers that become proof participation active participation of parents in the greening program at SDI Taman Quraniyah. Therefore, That Can concluded that the greening program This done in a way participatory, namely a school program that is implemented in a way comprehensive where all inhabitant school follow play a role active in implementation concern environment [25].

CONCLUSION

Fundamental Finding: The greening program at SDI Taman Quraniyah is implemented through collaborative cooperation among all initiating parties, supported by a structured reforestation team consisting of the school principal as guarantor, a treasurer, a program coordinator, and field implementation members, with limited land optimized through the use of vertical gardens and the maintenance of existing trees to create a clean, cool, and comfortable learning environment for students. **Implication :** The program strengthens environmental awareness by integrating learning activities with greening and recycling initiatives, encouraging teachers to guide students in creative projects using simple reused materials, while also empowering students and parents to actively support program success through participation in activities and resource provision. **Limitation :** The implementation remains constrained by limited land availability and the need for continuous maintenance and monitoring to sustain environmental quality and program consistency. **Future Research :** Further studies are needed to explore more effective models of community participation, evaluate long-term behavioral impact on students, and develop scalable greening strategies for schools with similar spatial and resource limitations.

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