

EVALUATION OF ELEMENTARY SCHOOL ASSISTANCE PROGRAM AT SDN KAMOJANG BANDUNG

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Abstrak

Global warming that happen on earth today can not we avoid by close our eye on it. So, need an awarness movement for the human related to dangerous of global warming. Hopelly, the reaching of it could be following by new habit which prevent and reduce avery activity that causing the global warming. Makmal Pendidikan is one of the educational network of Dompot Dhuafa working to improve the quality of education in Indonesia by conducting various school facilitating programs, one of which is the Green School program or school-based environment. Facilitating program is located in SDN Kamojang Bandung. Program evaluation aims to determine how far the influence of the program to the beneficiaries. The study was conducted by asking a question in the form of questionnaires and interviews with selected respondents, the variables examined include knowledge and performance related beneficiaries Green School program is implemented in schools. The evaluation of SDN Kamojang Bandung in 2013 seen by teacher's performance related to the implementation of school based on environment program (green school) have the average value of 68.96% (Good categories), The evaluation of SDN Kamojang Bandung in 2013 seen by teacher's knowledge related to the school based on environment program (green school) have the average value of 88.25% (Very good categories), The evaluation of SDN Kamojang Bandung in 2013 seen by student's performance related to the school based on environment program (green school) have the average value of 72.03% (Good categories), and The evaluation of SDN Kamojang Bandung in 2013 seen by student's knowledge related to the school based on environment program (green school) have the average value of 85.82% (Very good categories)

Key words: Global warming, School assistance program, Green school

INTRODUCTION

Global warming will not only be felt many decades from now—it is already happening and its impacts are clearly visible. This paper gathers examples from the peer-reviewed scientific literature of recent impacts around the world. These include increases in extreme weather events, rising sea level, disappearing glaciers and polar ice, damaged coral, changes in wildlife distributions and health, and increased activity and abundance of disease vectors. Although a direct link to global warming is difficult to establish for some of these phenomena in isolation, the multitude of changes collectively provide clear evidence of the immediate and growing danger that global warming poses to the economy, human health, and the ecosystems upon which humans and other species depend. Since greenhouse gas pollution stays in the atmosphere for decades or centuries, humanity may have no more than a decade left to begin stabilizing the climate to avert devastating and irreversible impacts. Such an achievement will require a concerted effort among all nations.

Many among the public may have the misconception that global warming is a distant threat, with consequences that will only be felt many

decades from now. The fact is, many widely accepted, peer-reviewed scientific studies have found evidence that global warming has already had major impacts on ecosystems and societies across the world. Glaciers all around the world and Arctic sea ice have been shrinking and disappearing; sea level has been rising and flooding low-lying areas; lifethreatening heat waves, looding rainstorms, droughts, and forest fires have become more intense and frequent over recent decades; corals are “bleaching” and dying in response to higher ocean temperatures; and numerous animal and plant species are migrating away from the higher temperatures, toward the poles and higher elevations. While a direct causal link to global warming has been established for some observed changes, such as sea-level rise and worldwide glacial retreat, such a link is difficult to definitively establish for other changes, such as the increased incidence of droughts or the migration of a particular species.

However, the multitude of changes collectively provides a consistent and clear body of evidence of the immediate and growing danger that global warming brings. Using the terminology of those tasked with protecting public health, “the weight of the evidence,” or nformation compiled from all available studies, points strongly to global

warming as a force behind the observed changes. At risk are the health of the global economy, of human individuals and communities, and of the ecosystems upon which we depend for food, clean water, other resources, and spiritual sustenance.

Global warming is happening on earth should not be ignored just like that. It required an effort of the magnitude of human awareness to the dangers posed by global warming. The hope, the higher human consciousness on impact, they pushed and moves to prevent and reduce activities that lead to global warming.

As an educational institution for the future generations of life on this earth, schools occupy an important role in the dissemination, awareness, and sensitivity enricher or early environmental awareness. For that efforts to achieve environmentally sustainable schools ought to be supported. Later, when they are expected to work such attitudes can be applied in a manner which is thoughtful and caring work environment.

Makmal Education is one of the educational network of Dompot Dhuafa seeking to improve the quality of education in Indonesia by conducting various school facilitating programs, one of which is the Green School program or school-based environment. The facilitating program is a form of cooperation with Pertamina SDN Kamojang located in Bandung. School facilitating program is a program that aims to improve the quality of school begins with enhancing the quality of teaching and learning and improving the quality of school management.

Green School is the school fasilitation program which aims to shape the character of children who about the future of the earth. Green school born on the basis of sincerity and patience over the fate of the people. So, school is able to spearhead and educate students to care about the environment and implementation 'environment freindly' activities in daily life. Green School program expected to shape the generations that care about the environment and able to control their lifestyles so as to avoid negative impacts to the survival of humanity.

The shape of the program teach students to separate organic waste and organic waste, training of making biopori's holes, conduct program 3R (Reduce, Reuse, Recycle) that make use of waste and scrap to make products, the introduction of healthier snacks, etc.



Picture 1. Techniques of making biopori's holes

METHODOLOGY

There were School fasilitation program that held by Makmal Pendidikan in SDN Kamojang Bandung with 12 teachers and 242 students. This research purposed to evaluate the result of Green Shool Program. The data of the research was taken in May 2013 at SDN Kamojang. The method of the study was questionnaire and interview method. The teachers and the students were given some questions that related with Green School Program they have felt and done.

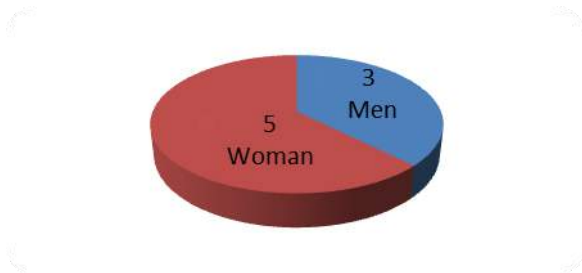
In this study to obtain the number of samples used the theoretical of Gay that stated the sample size is acceptable based the study design used is for a population whose numbers relatively small, minimal sample taken is equal to 20% of total population (Umar, 2007: 79). Based on the theory and population of 12 teachers and 242 students, 20% of the samples taken, minimal of samples can be obtained as many as 3 teachers and 49 students of SDN Kamojang Bandung. There were 8 teachers and 79 students filled in questionnaire and they were chosen randomly.

Assessment category	
Percentage Achieved	Assessment Category
$0 \leq x \leq 20$	Very poor
$20 < x \leq 40$	Poor
$40 < x \leq 60$	Fair
$60 < x \leq 80$	Good
$80 < x \leq 100$	Very good

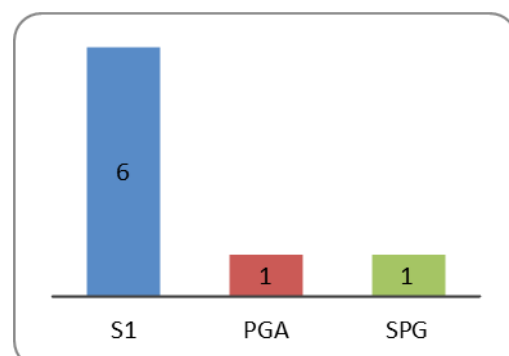
RESULT AND DISCUSSION

1. Teacher Evaluatuion

a. Gender



b. Last education



Evaluation of the teachers performance related to the implementation of The School Based Environment Concept (Green School) at SDN Kamojang Bandung

No.	Statements	Answer Percentage	Category
1	I integrate learning related to the protection and management of environment on the subjects and student's self-development activities	70.83%	Good
2	In the learning of students, I implemented approach, strategies, methods and techniques active learning based on environment	62.50%	Good
3	I've poured the local issues and / or global issues in the teaching materials that I give to students	62.50%	Good
4	I created lesson plans that adopt the learning inside and outside the classroom based on environments	66.67%	Good
5	I involve the parents and community in the learning environment	41.67%	Fair
6	I communicate the results of innovative learning environment to the school community, parents and the surrounding community	62.50%	Good
7	I implement the results of environmental problem solving in the school environment	66.67%	Good
8	I maintain and care for facilities, buildings and school environment with the students and teachers	95.83%	Very good
9	I utilize school '(in class) according to the rules of Environment together students and teachers	87.50%	Very good
10	I develop extracurricular activities that related or linked to the Environment	66.67%	Good
11	I do creativity and innovation related to Environment	70.83%	Good
12	I provide class sanitation infrastructure to solve the problems in the schools environment	75.00%	Good
13	I provide educational media to support the learning of environment in schools	62.50%	Good
14	I maintain school infrastructure that are environmentally friendly	79.17%	Good
15	I did increase management and maintenance of the school sanitation facilities	45.83%	Fair
16	make use electricity, water and office equipment efficiently	79.17%	Good
17	I make the campaign of healthy food and environmentally friendly to students	62.50%	Good
18	I support the existence of Healthy Kids Canteen and optimize it as an educational tool for students	79.17%	Good
19	I get the support from the related parties to improving the effort of Environment Movement	70.83%	Good
20	I did increase the role of the school committee in building partnerships for learning Environment	70.83%	Good
	Average	68.96%	Good

Teacher evaluations related to the implementation of the green school concept in SDN Kamojang includes 20 indicators with a mean value 68.96% and classified as somewhat better category. Analysis results of teacher respondents show there are 10 indicators which that percentage were below from the average, two indicators which values below 50% are an indicator of *teachers involve the parents and community in the learning environment* (accomplished 41.67%) and an indicator of *teacher do upgrading management and maintenance sanitation facilities of school* (accomplished 45.83%). That two indicators are in an

improvement priority area and should be aggressively promoted by the companion programs because its still have less point in implementation.

Meanwhile, there are 10 indicators about implementation of the green school concept which that percentage were above from the average, which 2 indicators are above 80% namely indicator of *teachers maintain and care for facilities, school buildings and environment together with the students and teachers* (accomplished 95.83 %) and indicators of *teacher utilizing school area (in front of class) according to the rules of environment together with students and teachers* (accomplished

87.50%). That is, the implementation of the green school concept on both these indicators has been carried out almost entirely by teachers and must be maintained.

Evaluation of Teacher Knowledge Related to The School Based Environment Concept at SDN Kamojang

Evaluations of teacher knowledge related to the school based environment concept includes 15 indicators that formed in open-ended questions. On the first question about teacher knowledge related to green school concept, 2 teachers gave answers that green school is a school which cares about the preservation of nature and growing awareness of the entire school community about the importance of environmental protection, 2 other teachers gave answers that green school is a school which prepares students to be smart both academic and non-academic, and care for the environment, then 4 other teachers gave answers if green school is a school that gave birth outstanding students in academic and non-academic, intelligent, and have creative character.

The second question related to the teacher's role in the success of green school program in SDN Kamojang Bandung responded by 8 respondents with any answer that was not so diverse, even the two respondents gave almost the same answers. Generally, teachers' answers for this question is to be a creative teacher and able to manage/facilitating students who have so diverse in learning intelligence, in order to create an active and fun teaching and learning process as well as care about the environment. In the third question about the role of the school committee in the success of the school-based environment program, most of the teachers responded that the school committee act as a partner, while the other teacher gave quite different answers said that the school committee also acts as a green school program participants who create a conducive school and produce a better learning quality. Respondent's answer absolutely right 100%.



Picture 2. Training of teacher's Kamojang elementary school about Green School

In the fourth question about the teacher opinion related to the green school curriculum, almost entirely teacher answered that green school is curriculum which always integrating environment in any learning material and could apply it in their everyday life. But there is one answer that quite interesting because it different with 7 other teachers, and said that green school is a paradigm change in the management of education, providing the widest possible autonomy for schools to manage including do innovation in curriculum development and learning models. All respondent's answer Almost correctly.

Switch to the fifth questions related to teacher's knowledge about the types of garbage, 5 teachers classify garbage into 3 types (organic, non-organic, and toxic), 2 teachers classify garbage into 3 types (organic, non-organic, and inorganic) and 1 teacher classify garbage into 2 types (organic and non-organic). The sixth question about the importance of greening in the school, all respondents agreed to answer greening useful in schools to educate and familiarize students to care about the environment. In this case, All respondent's answer correctly 100%.



Picture 3. Green School socialization for teachers

In the seventh question about the difference healthy food and unhealthy food when viewed based on the content of it substance, appearing almost similar answers from teachers who among others says healthy foods are foods that are clean and contain nutrients, whereas unhealthy foods are foods that contain no nutrients, not clean, containing chemicals and grow various types of diseases. Continues to eighth questions, all of teachers answer lead to the statement that unhealthy foods and drinks can cause diseases, diarrhea and also reduce immunity. To this 8th question, all of respondents answer correctly.

While in the ninth questions about the examples of unhealthy snacks, all respondents gave answers that unhealthy snacks are various kinds of food and beverages that contain colorants and preservatives that comes from toxic chemicals. Absolutely right 100%. Tenth question related to teacher's knowledge about the example of healthy

snacks, respondents answered that healthy snacks are foods and drinks that use natural dyes, hygienic packaging, nutritious and free of preservatives, as well as avoiding harmful substances for the health of children. Once again, 100% respondents answer correctly.

Eleventh question concerning 3R related to teacher knowledge, there are respondents who answered using the English language "Rijuese, Riuse, Risykele", from here it seems this term needs to be socialized more and further because all of 8 teachers who responded was wrong when they write the extension of 3R. There is also teacher explain in Indonesian that 3R are "*memilih*", "*membedakan*", and "*mendaur ulang sampah*". Quantitatively, only 50% of respondents correctly. Related to twelfth question when responden tested about knowledge concerning the function of biopori, all respondents answered that biopori functioning as the absorption of water on the ground, other responden gave answer if biopori also serves in making compost and soil enrichment. All respondents correctly 100%.

In the thirteenth questions that evaluate teacher's knowledge about medicinal plants, all of 8 respondents answered if medicinal plants is a plant that can be used as medicine like "toga" (tanaman obat keluarga), and only one responden who gave answers with including examples of plants, namely: ginger, Kaempferia Galanga, lime juice, roselle, panglay, aloe vera, cat whiskers, batawali, binahong, turmeric, cashew nut, betel, etc. All respondents correctly 100%.



Picture 4. The Implementation of 3R program

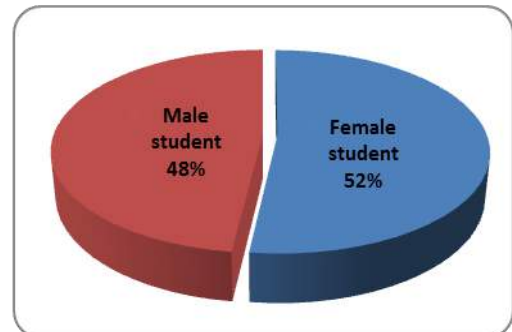
Fourteenth question about the differences between foods that contain harmful preservatives ingredients and no, outdated raw materials or not, seems lead to misperception of respondents were somewhat ambiguous, because almost of respondent's answers for this question is not clear where it goes, for an example one respondent answered that "lighter-colored food once the expiration last longer like moldy", therefore besides

improved the teacher's knowledge, validity and clarity of indicators in the questionnaire also needs to be fixed. Last question number fifteen, about teacher's knowledge related to one example of implementation 3R in the school, all teachers simultaneously give an example that used drinking water bottles can be made as wall hangings and curtains. Compactness of teachers in answering this indicator indeed "seemed" nice, but also means that the teachers are not creative in applying the concept of 3R in school.

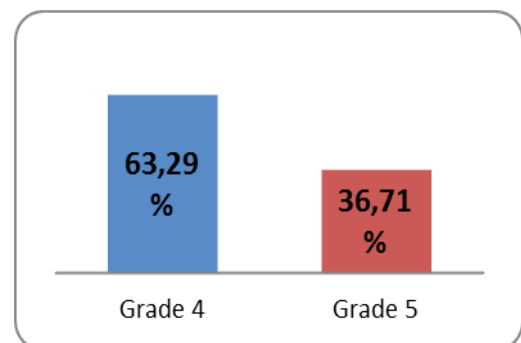
Quantitatively, the value of respondents in answering 15 questions related to criteria of knowledge, in general relatively good with the average value 8.88 (scale 1 to 10). There are 4 respondents who has value of the answer that below the average, with the lowest score is 7.83. Respondents which value above the average also consists of 4 person with the highest score is 9.67. With a different perception of each teacher, there is a reasonable if it being diversity of value related knowledge of green school, but with there still teachers who scored below 8 it also shows that the socialization of green school program in SDN Kamojang need to be improved in order to achieve results in line with the expectations of program managers.

1. Student Evaluation

a. Gender



b. Class distribution



Evaluation of Student Performance Related to The Implementation of The School-Based Environment Concept

No.	Question	Average (%)	Category
1	I dispose garbage in its place	67.72	Good
2	I dispose the plastic garbage into inorganic trash cans	63.29	Good
3	I throw leaf garbage into organic trash cans	73.42	Good
4	I picked up the garbage that littered on the school's field	60.76	Good
5	I watered the plants that planted in front of the class	65.19	Good
6	I take care of school cleaning tools (broom, duster and trash cans)	62.03	Good
7	I do picket-class cleanliness that have been assigned	88.61	Very good
8	I follow the planting activities that held in school	78.48	Good
9	I am buy healthy foods and beverages	79.11	Good
10	I wash my hands before eat	81.65	Very good
Average		72.03	Good

Table above shows that in generally, students was include to "good category" in realization the concept of school based environment. In fact there are two indicators that categorized as "very good", *the picket-class cleanliness* and *wash hands before eat* which an average percentage above 80 percent. Meanwhile, the lowest achievement is indicators of *students picking up the garbage that littered on the school's field*, which only amounted 60.76 percent.

That is, the awareness of students in picking up garbage that littered on the school's

field still needs to be improved. This may happen because the students still think that picking up garbage is something not important to do. Realization in disposing the organic garbage is equal 73.42 percent, this is higher than student's realization in disposing nonorganic garbage (63.29%). This identifies that the knowledge gained by students about the organic garbage is more realized than the nonorganic garbage. Overall, the average of student's realization related to the Green School Program was include to "good category" which 72.03 percent.

Evaluation of Student Knowledge Related to The School Based Environment Concept at SDN Kamojang

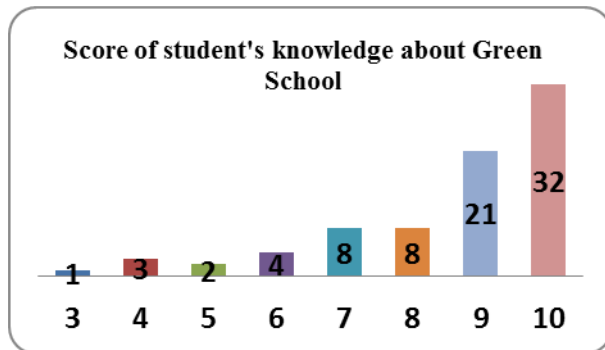
No	Question	Average (%)		Category
		True	False	
1	Garbage consists of two types	79.75	20.25	Good
2	Unhealthy snacks	94.94	5.06	Very good
3	Usefulness of planting at school	93.67	6.33	Very good
4	Dangers of disposing garbage not in its place	93.67	6.33	Very good
5	Danger of snacks that exposed with dust and flies	96.20	3.80	Very good
6	The cleanliness and beauty of school's environment is responsibility of	79.75	20.25	Good
7	Places to dispose garbage of candy wrappers	74.68	25.32	Good
8	Snacks that are nutritious	97.47	2.53	Very good
9	Place to dispose garbage of orange peel	68.35	31.65	Good
10	Compost made from	79.75	20.25	Good
Average		85.82	14.18	Very good

The table above shows that the student's knowledge about the Green School Program, generally was include to "very good category" with percentages above 90 percent, that indicators are *unhealthy snacks*, *usefulness of planting at school*, *dangers of disposing garbage not in its place*, *danger of snacks that exposed with dust and flies*,

and *nutritious snacks*. This means that School Assistance Program related to the Green Schools Concept has successfull to increase the knowledge of students.

However, students who know about the place to dispose garbage of orange peels only 68.35 percent, the remaining about 20.25 percent of

student gave a wrong answer. This means that student's knowledge about the types of organic garbage should be more improved. Overall, the average of student's knowledge about the Green School Concept has been classified as "very good" with a value of 85.82 percent. Student's knowledge related to Green School measured by giving ten questions objectively, 1 given for the "right" answer and 0 for "wrong" answer.



Picture 5. Score of student's knowledge about Green School

The graph below illustrates that there are only 10 students (12.66%) who get knowledge value of Green School under 7 (scale 10). Meanwhile, the number of students that reached 9 or 10 (scale 1 to 10) accounted 53 students (67.09%). The average value of students who have reached 8.58 (scale 10) shows that the general knowledge of students about the school based environment has been completed.

As a whole can be seen that the average level of knowledge, both teachers and students is higher than the level of realization. The average of knowledge of teachers reached 88.25 while the realization was only 68.96. Similarly about students, the average of knowledge of students reaching 85.82 while its realization only 72.03. This suggests that the school mentoring program from Makmal Pendidikan still have to improve their performance by optimizing the provision of education and controlling for teachers and students, so that the knowledge gained by the teacher and student related to Green School Program could be improved and in line with its realization.



Picture 4. Sosialitation of the Green School Program to Students In the Class

CONCLUSION

1. The evaluation of SDN Kamojang Bandung in 2013 seen by teacher's performance related to the implementation of school based on environment program (green school) have the average value of 68.96% (Good categories).
2. Indicators that need special attention and need to be more improved on its performance is related to the performance of teachers in involve the parents and community in the learning environment and the role of teachers in increase management and maintenance of the school sanitation facilities.
3. The evaluation of SDN Kamojang Bandung in 2013 seen by teacher's knowledge related to the school based on environment program (green school) have the average value of 88.25% (Very good categories)
4. Indicators that need special attention and need further strengthen in understanding to the teacher is related to the concept of 3R.
5. The evaluation of SDN Kamojang Bandung in 2013 seen by student's performance related to the school based on environment program (green school) have the average value of 72.03% (Good categories)
6. Indicators that need special attention and need to be improved in performance are indicators that concern about respect, awareness and student's performance to dispose the littered garbage on the school area without having to be asked, even if that garbage was not from him/her.
7. The evaluation of SDN Kamojang Bandung in 2013 seen by student's knowledge related to the school based on environment program (green school) have the average value of 85.82% (Very good categories)
8. Indicators that need special attention and need further strengthen in understanding to the student is about the types of garbage, so that students could dispose both organic and nonorganic garbage in accordance with its place
9. The gap between knowledge and performance, both teachers and students, shows that knowledge has not really actually implemented in daily life. It need an example, providing better understanding and monitoring the performance of teachers and students in support of the green school program along with related additional knowledge.

RECOMMENDATION

1. Need to socialize more about the green school concept, both in theory and practice.
2. In applying green school program, teachers should be more involved parents and the community in the learning environment.
3. Maintenance and care of facilities, infrastructure, buildings and school environments that have been done by teacher and student should be maintained.
4. Socialization of green school concept, clarity of definition and implementation of the 3R concept must being a priority option for further enhanced such in seminars, training, or other applicable activities.
5. Student's knowledge related to the type of garbage needs to be improved, for example by give the visualization in the trash bin provided.
6. Concern and awareness of the students in particular and the entire school community in general, related to the hygiene habits about dispose garbage in it place needs to be improved. Example, reminders and supervision needs to be done to improve the performance of the school community as well as knowledge related to school based environment.

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KETERANGAN PENULIS

Yulya Srinovita yang akrab disapa Iya' lahir di Pariaman, 9 Juli 1988. Sarjana lulusan Ilmu Keluarga dan Konsumen (IKK) IPB ini memulai karirnya di dunia penelitian sejak menjadi asisten dosen di IKK. Ia sering terlibat bersama dosen dalam penelitian-penelitian di bidang pendidikan, keluarga, anak, dan gizi. Wanita yang punya hobi berwirausaha serta menyukai dunia pendidikan, keluarga, dan anak ini mempunyai cita-cita ingin menjadi dosen dan peneliti dibidang pendidikan dan keluarga. Saat ini, ia diamanahkan sebagai koordinator peneliti Makmal Pendidikan, Dompot Dhuafa.

Pedri Haryadi lahir di Bogor 25 Agustus 1987. Penulis merupakan Mahasiswa S1 Fakultas Sains dan Teknologi UIN Jakarta. Penulis bergabung di Divisi Pendidikan Dompot Dhuafa sebagai tim peneliti program dan pendidikan sejak Agustus 2012. Penelitian "Evaluation of Elementary School Assistance Program in SDN Kamojang Bandung" merupakan salah satu hasil penelitian sosialnya setelah sebelumnya juga pernah melakukan beberapa penelitian tentang analisa kepuasan penerima manfaat program di Divisi Pendidikan Dompot Dhuafa. Karirnya sebagai seorang peneliti dimulai dengan menjadi interviewer di Deka Marketing Research, sebuah perusahaan riset pemasaran di jakarta. Selain aktif di dunia riset, pria yang memiliki hobi bermain futsal dan badminton ini juga pernah menjadi seorang observer yang tergabung dalam tim monitoring BP3KTKI pada tahun 2009.