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Evaluation of The Jalatista Tap Water Program at Universitas Padjadjaran

Tantan Gumilar✉, Guswan Wiwaha, Sri Yusnita Irda Sari

Faculty of Medicine, Universitas Padjadjaran
Jl. Raya Bandung Sumedang No.km 21, Hegarmanah, Kec. Jatinangor, Kabupaten Sumedang, Jawa Barat, 40161

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Abstrak

Latar belakang: Air merupakan sumber daya alam yang sangat penting bagi kehidupan manusia karena hampir 70% tubuh manusia terdiri dari air. Pada tahun 2018, Universitas Padjadjaran memiliki 32.481 mahasiswa yang membutuhkan banyak air minum. Universitas ini telah menginisiasi program bernama Jalatista untuk menyediakan air minum. Hasil survei yang dilakukan oleh BEM Universitas Padjadjaran 2018 menemukan bahwa sekitar 41,8% mahasiswa belum pernah menggunakan Jalatista. Penelitian ini bertujuan untuk mengevaluasi program air minum Jalatista berdasaran persepsi responden. **Metode**: Penelitian ini menggunakan metode campuran dengan rancangan sequential explanatory. Tahap kuantitatif dengan melakukan survei yang melibatkan 430 siswa dan pengujian kualitas mikrobiologis air minum di 10 titik (20 sampel air). Pendekatan tahap kualitatif dengan melakukan wawancara mendalam dengan 2 manajer. **Hasil**: Hasil penelitian menunjukkan bahwa secara konteks pelaksanaan Jalatista berjalan cukup baik. Dari aspek input, diperlukan peningkatan kapasitas sumber daya manusia dan pengembangan fasilitas agar program menjadi lebih baik. Proses sosialisasi oleh pihak manajemen kurang optimal dan kurang disiplin dalam pengawasan. Aspek produk, siswa yang belum pernah menggunakan fasilitas Jalatista mencapai 52,8% (95% CI: 48,1%-57,5%), kualitas air minum masih belum layak minum pada 6 sampel dari total 20 sampel, dan tingkat kepercayaan pengguna masih tergolong rendah. **Kesimpulan**: Program Jalatista harus memperhatikan aspek pemeliharaan untuk meningkatkan kualitas air minum yang dihasilkan di semua titik.

Keywords:
The mixed methods research, evaluation program, microbiological quality of drinking water, CIPP

✉**Coresponding author:**
tantan6661@gmail.com

Abstract

Background: Water is an essential natural resource for human life as almost 70% of the human body consists of water. In 2018, Universitas Padjadjaran had 32,481 students in which they require a lot of drinking water. This university has initiated a program called the Jalatista to provide drinking water. The result of a survey conducted by BEM Universitas Padjadjaran 2018 found that around 41,8% of students had never used the Jalatista. This study aims to evaluate the Jalatista drinking water program based on the respondents' perceptions **Methods:** This research used mixed methods with a sequential explanatory design. The quantitative stage by conducting a survey involving 430 students and testing the microbiological quality of the drinking water at 10 points (20 water samples). The qualitative stage approach by conducting in-depth interviews with 2 managers. **Results:** The result showed that in terms of context, the implementation of the Jalatista run quite well. The input aspect, it needed to increase the capacity of human resources and develop facilities so to make the program better. The process of socialization by the management was less optimal and lack of discipline in monitoring. The product aspect, students who have never used the Jalatista facility reached 52.8% (95% CI: 48.1% -57.5%), the quality of drinking water is still not suitable for drinking at 6 sample out of a total of 20 sample, and the level of user confidence is still found to be poor. **Conclusion:** The Jalatista program must pay great attention to the aspect of maintenance to improve the quality of drinking water produced at all points.

INTRODUCTION

Water is a natural resource that must exist for life, as evidenced by water in the human body, which consists of approximately 70% water because water is a universal solvent. Water has many important roles in the body, such as oxygen transport to cells, metabolism, nutrient absorption, body detoxification, body temperature regulation, and others.[1] One of the efforts to meet the need for drinking water following quality standards requires adequate facilities and infrastructure so that the water provided by nature can be processed safely and produce healthy water for consumption.[2]

According to The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2 billion people in the world do not have access to water that meets quality and quantity standards. It is because a lot of water is polluted by various kinds of waste from human activities, such as industrial waste and household waste, so people are forced to use water that has been contaminated with microorganisms.[3,4] In fact, based on data from the 2018 National Socio-Economic Survey (SUSENAS) shows that for access to safe drinking water, Indonesia has only reached 72.99%.[5]

Based on the Decree of the Minister of Health of the Republic of Indonesia No. 907/MENKES/SK/VII/2002, it is stated that clean water is water used to meet the needs of daily life whose quality meets the health requirements of clean water that can be drunk when it has been boiled. Furthermore, based on Permenkes No.492/MENKES/PER/IV/2010 concerning Drinking Water Quality Requirements, it is stated that drinking water is water that has gone through processing without a treatment process that meets health requirements and can be drunk directly. It is required that the levels of E. coli and coliform in drinking water are 0 per 100 milliliters (mL) of water must be met. Then, the microbiological quality of drinking water must be checked for quality at least once a month.[6,7]

The data shows that in 2018 Padjadjaran University had 32,481 students who needed a lot of drinking water in their daily activities. Therefore, efforts can be made to increase access to drinking water that meets quality and quantity standards, one of which is the development of a Drinking Water Supply System (SPAM) in universities to accelerate the achievement of drinking water development targets as stated in the 2020 National Medium-Term Development Plan (RPJM) 2020– 2024 access to drinking water has reached 100%.[8]This is done by Padjadjaran University, which is committed to becoming a green campus. Through the Jalatista Tap Water program, which was socialized on January 2, 2019, on the sidelines of the "Unpad Mapag Year 2019" activity in the form of thanksgiving for the acquisition of "A" accreditation and inaugurated on August 19, 2019, at New Student Admission.

Jalatista Tap Water is a source of drinking water provided around the Padjadjaran University Jatinangor campus through the media in the form of a tap. So that everyone can easily get access to drinking water and can immediately drink it when the water comes out of the tap because under the tap, there is a filtering system to make the water drinkable.[9] Furthermore, to maintain the drinking water quality of the Jalatista Tap Water program, it is necessary to maintain equipment and monitor water quality regularly following the Decree of the Minister of Health of the Republic of Indonesia No. 907/MENKES/SK/VII/2002 that the microbiological quality of drinking water must be tested for quality at least once a month.[6,10] The results of a survey conducted by the Student Executive Board of Padjadjaran University in 2018 showed that the existence of the Jalatista Tap Water facility was very helpful by 64.2%. However, there were still many students who had never used Jalatista Tap Water, around 41.8%.[11] Students are the main target that needs to be considered by the manager because each student has a different perception of the program.[12]

Evaluation will provide feedback on the program or implementation of an activity. Without an assessment, it is difficult to know to what extent the goals that a program has planned have been achieved or not.[13] Program evaluation is carried out to provide information about the causes and effects of a policy that is more focused on the activities being implemented and is carried out by digging up information on a regular basis based on certain indicators.[14,15] The purpose of program evaluation research is to assess the extent to which the level of success or achievement when compared with the predetermined plan, see the supporting and inhibiting factors of the program being carried out, provide input or recommendations for implementing the next program.[16,17]

Various evaluation models have the same goal but emphasize certain aspects. The CIPP evaluation model emphasizes the aspects of context (perception and level of exposure to information about the Jalatista Tap Water program), input (resource readiness), process (maintenance, monitoring, and implementation of socialization), and product (microbiological quality of drinking water and student confidence). Using this evaluation model makes it easier for policymakers to decide policies in a program. Furthermore, the CIPP evaluation model is a model that can be seen directly in which areas the program must be improved or developed. Therefore, to evaluate the Jalatista Tap Water program at Padjadjaran University, it is appropriate to use the CIPP evaluation model.[18,19]

METHODS

Study Design

The design of this research is a mixed-methods using a sequential explanatory strategy where the researcher first conducts quantitative research, analysis the results, and then arranges them. Furthermore, to explain in more detail using qualitative research with a general approach and using a positivistic paradigm to explain how the process of preparing for the implementation of the Jalatista Tap Water program.

Sample Size and Sampling

The population consists of Padjadjaran University students who are in 10 (ten) faculties as many as 16,403 students where the determination of the number of faculties is based on the consideration that the faculty is closest to the point of the Jalatista Tap Water facility to conduct a survey of its use, and drinking water which is in 10 (ten) point, where each point has 2 (two) taps to analyze the microbiological quality of drinking water.

The researcher used the Slovin formula to determine the sample size of the population. The minimum number of samples is 390.54 samples, and to avoid data collection errors, the sample is added by 10% of the minimum sample, so that the number of samples in this study was 430 people. The sampling technique used was stratified random sampling, namely the process of taking samples through the process of dividing the population into strata, selecting simple random samples from each stratum, and combining them into a sample to estimate the population parameters.[20] Researchers use this technique because the student population of Padjadjaran University is divided by various faculties.

Microbiological Quality Testing

The process of taking a sample of drinking water from the Jalatista Tap Water facility 100 millilitres (mL) which are put into a sterile plastic container and brought using a cool box to the microbiology and parasitology laboratory in less than 6 hours for E. Coli and Coliform examination. by using a 0.45-micron membrane filter (the filter membrane material from milli-pore was used).

The dilution technique was carried out on drinking water samples using NaCl solution with a ratio of 1:9 the mixed solution was shaken so that it became homogeneous. Furthermore, the membrane filter plate cover was opened, and put 1 mL of the homogeneous water sample into the dry layer on the plate, the water was allowed to diffuse evenly on the plate, closed the membrane filter plate cover and then inverted and put into the incubator for the incubation process at 37^0C for 24 hours. After the incubation process for 24 hours and then counting the number of colonies formed in units of CFU/100mL, the purple dot indicates Coliform, and the blue dot indicates *E. Coli.*

In-depth Interview

The subject at the qualitative stage was the manager of Jalatista Tap Water. Subject selection was determined based on suitability (appropriateness). Participants or informants are selected based on the authority and sources of information that meet and are following the research topic and based on adequacy. The data obtained can describe phenomena related to the research objectives.[21,22] The population at the qualitative stage is the education staff in the facilities and infrastructure section. Furthermore, the research sample was the Jalatista Tap Water program manager, which consists of 2 (two) people who serve as informants. The research sample selection technique was carried out by purposive sampling. Purposive sampling is a sampling technique based on certain criteria or considerations specifically involved in the Jalatista Tap Water program and has worked for more than 1 year.[23]

RESULTS

Based on the collected questionnaires, 430 Padjadjaran University students were willing to be respondents in this study. The characteristics of these respondents are presented in Table 1 below. Based on Table 1, it can be seen that women dominated the respondents as many as 272 respondents (63.3%) and the class/year entering 2019 as many as 330 respondents (76.7%).

Table 1. Respondents Characteristics

No	Characteristics	n	%
1.	**Gender**		
	Male	158	36,7
	Female	272	63,3
2.	**The Class Year Entering**		
	2016	13	3,0
	2017	35	8,1
	2018	52	12,1
	2019	330	76,7
3.	**Faculty**		
	Economics and Business	58	13,5
	Pharmacy	15	3,5
	Law	44	10,2
	Cultural Sciences	66	15,3
	Social and Political Sciences	94	21,9
	Medicine	29	6,7
	Dentistry	15	3,5
	Mathematics and Natural Sciences	62	14,4
	Geological Engineering	19	4,4
	Agricultural Industrial Technology	28	6,5

Information Exposure of Respondents about the Jalatista Tap Water Program

A total of 341 respondents (79.3%) have known about the Jalatista Tap Water Program since 2019; The

main source of information about the Jalatista Tap Water Program was from their friends, namely 227 respondents (62.1%), and only 65 respondents (15.1%) stated that they had received socialization about the Jalatista Tap Water Program (Fig. 1).

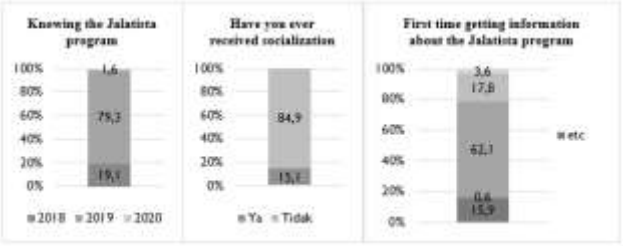

Fig. 1. Information Exposure of Respondents about the Jalatista Tap Water Program

Respondents' Behavior towards the Jalatista Tap Water Program

The 227 respondents (52.8%) have used the Jalatista Tap Water facility; As for the location of Jalatista Tap Water, the most frequently used by respondents was in the Faculty of Cultural Sciences at 31.0%. In addition to drinking, 46 respondents (20.26%) have used the Jalatista Tap Water facility to wash their hands (Table 2). Furthermore, of the 227 respondents who had used the Jalatista Tap Water facility, as many as 88 respondents (38.8%) stated that it was possible to return to using the Jalatista Tap Water facility. In addition, as many as 81 respondents (35.7%) stated that it was possible to recommend the Jalatista Tap facility. Water to his friends. The 276 respondents (64.2%) had experienced disturbances in using the Jalatista Tap Water facilities, such as due to dirty water, the water did not come out and did not work.

Respondents' Level of Trust in the Jalatista Tap Water Program

The results of the analysis that the respondent's level of trust in management, the number of officers, maintenance, and the quality of the Jalatista Tap Water facility is at a low level of trust (Table 3).

Respondents' Perception of the Jalatista Tap Water Program

The Jalatista Tap Water Program is perceived as quite good by the respondents, both in terms of meeting its objectives; compliance with standards; affordability; benefit; and overall satisfaction (Table 4).

Quality of Microbiological Parameters of Jalatista Tap Water

Water quality measurements were carried out by examining microbiological parameters, namely Coliform and E. coli, on 20 water samples from the Jalatista Tap Water facility. Twenty samples were obtained from 10 points (each point has two faucets). (Table 5). The examination of microbiological parameters showed that from 10 (ten) points/locations of Jalatista Tap Water facilities, only 4 (four) points/locations produce quality drinking water from both taps. Meanwhile, for the other 6 (six) points/locations, one of the taps produces low-quality drinking water (coliform bacteria are still found). Including the points/locations of the Jalatista Tap Water facilities often used, namely points/locations at the Faculty of Cultural Sciences.

Table 2. Respondents Behavior

	n	%
Have you ever used the Jalatista		
Yes	227	52,8
No	203	47,2
The Jalatista locations ever used		
1. Bale Santika	33	14,5
2. Faculty of Law	25	11,0
3. Faculty of Cultural Sciences	70	31,0
4. Faculty of Social and Political Sciences	9	4,1
5. Faculty of Mathematics and Natural Sciences	6	2,7
6. Faculty of Agricultural Industrial Technology	11	4,9
7. Gor Jati	21	9,3
8. Masjid Raya Unpad	29	12,6
9. Rectorate 1 (in front of bale sawala)	18	7,7
10. Rektorat 2 (right side of bale sawala)	5	2,2
Using the Jalatista other than for drinking		
Yes	74	32,6
No	153	67,4
1. Washing hands	46	20,26
2. Washing face	20	8,81
3. Wudu	8	3,52
Reusing the Jalatista		
Very impossible	3	1,3
Impossible	7	3,1
Neither impossible nor possible	60	26,4
Possible	69	30,4
Very Possible	88	38,8
Recommend to friends to use the Jalatista		
Very impossible	3	1,3
Impossible	9	4,0
Neither impossible nor possible	66	29,1
Possible	68	30,0
Very Possible	81	35,7
Found the Jalatista not working properly		
Yes	276	64,2
No	154	35.8
1. Dirty water	62	22,5
2. Water doesn't flow	96	34,8
3. Not working	118	42,8

Implementation of the Jalatista Tap Water Program

The management explained that implementing the Jalatista Tap Water program went well. Funds, facilities, and infrastructure from Unpad do not involve other parties. The following is an excerpt of an interview with the manager:

"For the implementation process to go well, we buy the tools and build the place; we also own the materials used that do not contain PVC and are following the standards from Padjajaran University, all from other parties. R-01"

Table 3. Respondents Level of Trust

No	Statement	Very impossible	Impossible	Neither impossible nor possible	Possible	Very likely	Score	TCR	Category
1.	The Jalatista program has been well managed	45	107	177	66	35	1229	57,2%	Not good
2.	The Jalatista program management officers are sufficient	46	137	162	47	38	1184	55,1%	Not good
3.	Competent management officer to carry out maintenance of the Jalatista facilities	35	119	176	60	40	1241	57,7%	Not good
4.	The water quality of the Jalatista program is drinkable	40	66	141	121	62	1389	64,6%	Not good
	Score Percentage								**58,7%**

Table 4. Respondents Perception

No	Statement	Very impossible	Impossible	Neither impossible nor possible	Possible	Very likely	Score	TCR	Category
1.	The Jalatista program has been implemented by the program objectives	17	61	180	131	41	1408	65,5%	Pretty good
2.	I feel that the Jalatista facilities are by the standards that have been set	31	85	170	103	41	1328	61,8%	Pretty good
3.	The Jalatista facilities are easy to reach for me	39	77	84	140	90	1455	67,7%	Pretty good
4.	The Jalatista program is useful for me	16	51	127	127	109	1552	72,2%	Pretty good
5.	I am satisfied with the Jalatista program	25	55	150	133	67	1452	67,5%	Pretty good
	Score Percentage								**66,9%**

The readiness for program implementation is quite good, where the materials used are following standards. However, there are still some obstacles that need to be addressed. The excerpt of an interview with the manager:

"However, there are still obstacles, drinking water cleaning technology like this is not a new technology, but it turns out that spare parts for this machine are not easy to get, you have to go to the distributor, waiting for Lila, if in terms of price, it's expensive, but it's only good where you can buy it. R-01"

There were still limitations in the procurement of goods, such as the difficulty of obtaining spare parts, so that if there is mechanical damage, it cannot be directly handled.

User rate is still low

The management explained that this happened because changing someone's behavior was difficult and took time. The following is an excerpt of an interview with the manager:

"Getting people used to drinking straight from the tap is not easy, even though it is said to be safe but sometimes it hurts to the stomach, then there were misapplications such as washing hands, washing face. R-01"

Changes in behavior or habits play an important role in the sustainability of the Jalatista Tap Water facility.

Information submission process

One way to provide or convey information is through socialization. Therefore, optimal socialization is an important key so that the products of the Jalatista Tap Water program can be known so that students believe and feel safe about the drinking water that will be consumed.

Table 5. Results of the Microbiological Quality of Drinking Water

No	Location	Tap Water Position	Drinking water (CFU/100mL)	Observation	Conclusion
1.	Bale Santika	Tap water 1	Coliform : 0 E.Coli : 0	Unfavorable conditions such as the ceramic that has been released on the jalatista wall and the disposal container has rust.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 0 E.Coli : 0		Drinking water has satisfied the standard.
2.	Faculty of Law	Tap water 1	Coliform : 0 E.Coli : 0	Good condition, clean but on the disposal container there is rust.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 0 E.Coli : 0		Drinking water has satisfied the standard.
3.	Faculty of Cultural Sciences	Tap water 1	Coliform : 0 E.Coli : 0	Good condition, clean but the drain container has rust and very little water flowing from the tap water.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 4 CFU E.Coli : 0		Drinking water does NOT satisfy the standards.
4.	Faculty of Social and Political Sciences	Tap water 1	Coliform : 0 E.Coli : 0	Good condition, clean but on the disposal container there is rust.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 6 CFU E.Coli : 0		Drinking water does NOT satisfy the standards.
5.	Faculty of Mathematics and Natural Sciences	Tap water 1	Coliform : 0 E.Coli : 0	Good condition, clean but on the disposal container there is rust.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 0 E.Coli : 0		Drinking water has satisfied the standard.
6.	Faculty of Agricultural Industrial Technology	Tap water 1	Coliform : 0 E.Coli : 0	Good condition, clean but on the disposal container there is rust.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 1 CFU E.Coli : 0		Drinking water does NOT satisfy the standards.
7.	Gor Jati	Tap water 1	Coliform : 0 E.Coli : 0	The condition is good, clean, but in the disposal container there is rust and the place is very open, there are no obstructions such as trees or buildings that can make users take water comfortably.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 0 E.Coli : 2 CFU		Drinking water does NOT satisfy the standards.
8.	Mesjid Raya Unpad	Tap water 1	Coliform : 1 CFU E.Coli : 0	Good condition, clean but on the disposal container there is rust.	Drinking water does NOT satisfy the standards.
		Tap water 2	Coliform : 0 E.Coli : 0		Drinking water has satisfied the standard.
9.	Rectorate 1	Tap water 1	Coliform : 0 E.Coli : 0	Clean, well-maintained condition.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 4 CFU E.Coli : 0		Drinking water does NOT satisfy the standards.
10.	Rectorate 2	Tap water 1	Coliform : 0 E.Coli : 0	Clean, well-maintained condition.	Drinking water has satisfied the standard.
		Tap water 2	Coliform : 0 E.Coli : 0		Drinking water has satisfied the standard.

Description: A) Tap water 1 right side; B) Tap water 2 left side; and CFU: Colony Forming Unit

The management explained that the socialization process was in circulars and information on the Unpad website inviting them to use Jalatista Tap Water. The following is an excerpt of an interview with the manager:

"There have been two circulars on the facilities and infrastructure website, on the Odong-odong, there is also a barcode with information on the location of the jalatista. R-01"

The socialization carried out is still not optimal, and the socialization mechanism is only in the form of circulars and information on the Sarpras University website. The implementation of socialization by the Jalatista Tap Water program manager relies too much on the media for distributing letters, which does not necessarily mean that the letter will arrive and be read by students, so what is expected by the manager is not necessarily well socialized. The efforts made by the management to increase users are by collaborating with the Student Executive Board (BEM) of Padjadjaran University to advise other students to use the Jalatista Tap Water facility. The following is an excerpt of an interview with the manager:

"I have regular meetings with the Student Executive Board once a month to discuss all kinds of facilities and infrastructure, and I'm not academic facilities and infrastructure, I don't forget to remind you, let's have tea to drink, the Student Executive Board has also helped us on the website, there is also a video of the rector drinking. R-01"

Jalatista Tap Water facility is not working

The sustainability of the Jalatista Tap Water facility to continue to function properly and maintain water quality is certainly influenced by human resources (HR). These field officers must be responsible and can maintain the program's sustainability. However, based on interviews with field staff managers, there are limitations. The following is an excerpt of an interview with the manager:

"If you change the filter, you can, but if there is damage to the machine, we call a technician directly, and my staff's compliance with routine controls, if we are not fussy, we can forget. R-01"

The officers are not responsible. In addition, they lack the discipline to monitor the facility so that if there is a problem, it cannot be immediately identified and will disrupt the program's sustainability. Then, it is necessary to increase the capacity of human resources. Although currently, employees can perform maintenance on the facility, employees have not been able to repair if there is damage to the machine.

Water quality is not up to standard

Machines used to process raw water to fit for drinking must, of course, use adequate technology. First, the manager explained the working mechanism of the machine. The following is an excerpt of an interview with the manager:

"on the machine, there is already a filter and activated carbon media with carbon block to filter sand, mud, chemicals, and others. So you can drink it right away; you don't have to buy mineral water anymore because it's already provided". R-02

The facility has adequate drinking water treatment technology with several types of filters that can filter various types of particles in the machine. However, based on the results of quantitative data analysis for drinking water quality, there are still 6 (six) samples that do not meet the quality standards, so it can be concluded that the water is not fit for drinking. The management explained why this could happen. The following is an excerpt of an interview with the manager:

"For the materials used are all the same, moss or the like which has to be protected on it because if it is exposed to the sun, algae will grow. R-01"

The Jalatista Tap Water facility needs to repair or add a roof so that the facility can be protected from direct sunlight and users can comfortably use the facility.

DISCUSSION

Evaluation Context

Based on the results of research at the implementation stage of the Jalatista Tap Water program, there are still several problems that need to be addressed, such as the procurement of spare parts that are difficult to obtain, so that if something needs to be replaced on the machine, it cannot be handled immediately and can disrupt the sustainability of the program. Therefore, it is necessary to have good planning for the procurement of spare parts by purchasing spare parts for backup. Context evaluation can help the manager to plan and determine program needs to avoid problems during the implementation of the program.[24,25]

Another thing that needs to be considered is the lack of exposure to student information about the Jalatista Tap Water program. Many misapplications of these facilities are found, such as washing hands and washing faces. Although the lack of information exposure level can occur because the socialization process is not practical, even based on the analysis data, it is found that there are still high students who have never received socialization, 84.88%. Providing information through socialization can increase knowledge for people who receive the information.[26]

Evaluation Input

Input evaluation is an indicator that focuses on assessing whether the required resources are available or not. Input indicators can include human resources, funds, facilities, and infrastructure.[24]When viewed from the input indicators, the implementation of the Jalatista Tap Water program is quite good. This is because Padjadjaran University fully supports the source of funds does not involve other parties. The facilities and infrastructure are adequate and have been supported by good enough human resources, where employees can carry out maintenance Jalatista Tap Water facility. However, if there is mechanical damage, the employee has not been able to repair it and must call a technician from the distributor of the tool; therefore, it is necessary to increase human resources such as utilizing training to improve skills and professionalism.[27]

Furthermore, the officers still lack the discipline to carry out monitoring. Therefore, monitoring needs to be carried out regularly on all units so that damage, cleanliness, and other obstacles can be reported regularly so that corrective actions can be taken to overcome them. Monitoring is intended to obtain facts, data, and information about program implementation whether implementing activities are carried out following what has been planned.[28]

In addition, problems also appear in the Jalatista Tap Water facility, placed openly. Therefore, it is recommended to be equipped with a roof covering to be more comfortable using the facility and avoid direct sunlight to maintain water quality. In line with the results of Yushananta's research, exposure to direct sunlight could increase the number of coliform bacteria by 60.2%.[29]

Evaluation Process

Process evaluation aims to help implement decisions. How the plan has been implemented, whether the plan is following work procedures and whether it must be improved or not.[27]The implementation of processing raw water into ready-to-drink water is very important to realize products that meet quality standards. Consequently, the monitoring process at the Jalatista Tap Water facility must be carried out properly, but based on the results of qualitative data analysis, the employees responsible for monitoring the facility lack discipline.

This can cause problems for the program's sustainability, such as decreasing the quality of the water produced. In order to maintain the quality of drinking water, it is necessary to monitor water quality regularly following the Decree of the Minister of Health of the Republic of Indonesia No. 907/MENKES/SK/VII/2002 that the microbiological quality of drinking water must be tested for quality at least one sample once a month. Then, so that students can use the program, the optimal socialization process is an important key so that the program's products can be known so that students believe and feel safe about the drinking water to be consumed. The purpose of socialization is to attract the interest of a group or general public to become part of a program or use the product that is being socialized.[30]

In Socialization results, it is not getting messages and information to students. Still, the student's perspective does not change and remains with the past perspective, which thinks drinking water from a direct tap is unsafe. Based on the research results, the socialization mechanism that has been carried out is only in the form of circulars and information on the Padjadjaran University facilities and infrastructure website. The implementation of socialization by the Jalatista Tap Water program manager relies too much on the distribution media, which seems easy to do, not with direct meetings with students. Therefore, what is expected by the program manager is not necessarily well socialized.

Evaluation Product

The product or result of the Jalatista Tap Water program was ready-to-drink water that must meet the quality standards set by the Minister of Health Regulation No.492/MENKES/PER/IV/2010 that the levels of E. coli and Coliform in drinking water are 0 per 100 milliliters (mL) of water must be filled.8 So that it is expected to meet the needs of drinking water with adequate quantity and quality, and suitable for consumption by students. The examination results showed that the quality of drinking water still contained Coliform bacteria in 6 (six) samples of water, so it can be concluded that the quality of drinking water at some points is still not fit for drinking. The presence of Coliform bacteria in drinking water is an indication of the presence of other pathogenic organisms.[31]

Based on a survey conducted to 430 respondents, the usage rate is 52.8%. It shows an increase of 11% from the results of a survey conducted by the Student Executive Board of Padjadjaran University in 2019.11 Furthermore, the percentage level of confidence is 58.7%. Thus the respondent's confidence level is in the poor category. It indicates that the respondents lacked confidence in the Jalatista Tap Water program, resulting in a low level of facility use. There should be a follow-up to this problem to achieve the expected results.

CONCLUSION

The students who have used the Jalatista Tap Water facility was 52.8% when compared to the previous survey in 2019, there was an 11% increase in users. The implementation of the Jalatista Tap Water program can be said to be running quite well. However, some problems still need to be addressed, such as the lack of exposure to student information, the process of socialization less than optimal, and lack of discipline of employees to carry out monitoring so which requires an increase in the capacity of human resources and the development of facilities so that the Jalatista Tap Water program can run better. Furthermore, it was found that the quality of the drinking water is still not suitable for drinking at several points. The Jalatista Tap Water program must pay great attention to the maintenance aspect to improve the quality of drinking water produced at all points. Based on the evaluation results of the implementation of the Jalatista Tap Water program, several problems, challenges, and opportunities have been explained to improve access to drinking water that meets standards. For this reason, Padjadjaran University, as a decision-maker and policymaker, is expected to follow up on the Jalatista Tap Water program in the future in terms of quality and quantity.

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