**WASH in School (WinS): A Mixed-Methods Assessment of Program Implementation in Rural Philippines**

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ABSTRACT

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| This study aimed to evaluate the implementation of the WASH in Schools (WinS) program at Madatag Elementary School in Kabugao, Apayao, assessing its impact on students' health. The WINS program aligns with DepEd Order No. 10, s. 2016, which provides guidelines for safe water, functional toilets, and hygiene education. It aimed to ensure that students and school personnel have access to clean water, functional sanitation facilities, and hygiene education, creating a safe and healthy learning environment. The researcher used a Mixed-Method with a survey design. The descriptive design gathered detailed information on participants' age, grade level, and academic performance, as well as program implementation. The correlational approach examined the relationship between program implementation and participant profile variables. The mixed-methods approach provided both quantitative data on the program's impact and qualitative data on challenges and strategies. Most respondents were learners aged 9 to 12, representing a balanced demographic. The findings indicate that the WinS program at Madatag Elementary School is "Partially Implemented," with an overall mean score of 2.12. Hygiene practices received the highest rating (2.67), reflecting successful initiatives in supervised handwashing and hygiene education. However, critical areas such as water supply (1.67) and health and safety (2.00) scored lower, highlighting deficiencies in water quality monitoring and emergency preparedness. Sanitation and community involvement also remained partially implemented, suggesting the need for further improvement in infrastructure maintenance and stakeholder engagement. Statistical analysis revealed a significant difference in the extent of WinS program implementation across age groups (p = 0.034), with younger students reporting higher levels of implementation. No significant differences were found based on sex (p = 0.668) or grade level/plantilla position (p = 0.089), indicating equitable access to WASH facilities and practices across these demographics. The problems encountered in the implementation faces challenges, including inadequate water supply, insufficient hygiene materials, and lack of infrastructure.  The WASH in school program's partial implementation and recurring challenges, such as insufficient water supply and limited infrastructure, hinder its success. Younger learners perceive better implementation, but systemic limitations and lack of resources affect overall effectiveness. Targeted investment, stakeholder collaboration, and differentiated strategies for various age groups are necessary to strengthen the program. |
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*Keywords: [wash, sanitation, hygiene, challenges, implementation, demographic, insufficient, partially)*

1. INTRODUCTION

Access to safe water, adequate sanitation, and proper hygiene (WASH) is a cornerstone of global health and human development. Globally, inadequate WASH services contribute significantly to the spread of diseases such as diarrhea, which is among the leading causes of child mortality [World Health Organization. (2023). *Diarrhoeal disease*. WHO. Retrieved January 21, 2025, from <https://www.who.int/news-room/fact-sheets/detail/diarrhoeal-disease>]. According to the World Health Organization (WHO), approximately 2 billion people lack access to safe drinking water, while 3.6 billion lack safely managed sanitation facilities [World Health Organization. (2021). *Progress on drinking water, sanitation and hygiene: 2021 update and SDG baselines*. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene.]. The Sustainable Development Goal (SDG) 6 calls for universal access to water and sanitation, underscoring their critical role in health, education, and economic development. Schools are a critical entry point for promoting WASH, as they shape behaviors and practices that affect both students and their communities.

In the Philippines, the Department of Education (DepEd) has adopted the WASH in Schools (WINS) program to improve water, sanitation, and hygiene facilities in public schools. The WINS program aligns with DepEd Order No. 10, s. 2016, which provides guidelines for safe water, functional toilets, and hygiene education [Department of Education. DepEd Order No. 10, s. 2016: Policy and guidelines for the comprehensive water, sanitation, and hygiene (WASH) in schools program [Internet]. DepEd; 2016 [cited 2025 Jan 21]. Available from: <https://www.deped.gov.ph>]. The program seeks to ensure that schools provide a conducive learning environment by addressing hygiene and sanitation challenges that affect student attendance and performance. National statistics show that while progress has been made, disparities remain, especially in rural areas, where many schools lack basic WASH facilities [World Health Organization. (2021). *Progress on drinking water, sanitation and hygiene: 2021 update and SDG baselines*. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene]. In the Philippines, the WINS program aims to enhance water, sanitation, and hygiene in schools to support student health and learning. DepEd Order No. 10, s. 2016 serves as a framework for achieving these goals. However, challenges persist, particularly in rural areas, where many schools lack essential WASH facilities. These deficiencies contribute to absenteeism and poor academic performance among students. National efforts highlight the urgency of addressing these gaps for equitable education outcomes.

At the regional level, efforts have been made to implement WINS in schools across Northern Luzon, including Cagayan Valley and neighboring provinces. Studies indicate that schools with proper WASH facilities report fewer incidences of absenteeism due to hygiene-related illnesses [Dela Cruz, M., & Santos, R. (2019). Assessing the impact of WASH in schools in rural communities of the Philippines. *Journal of Public Health Policy, 40*(3), 334–345]. The implementation of WASH programs also fosters awareness among students about personal hygiene and environmental sanitation, promoting healthier lifestyles within communities. However, challenges such as limited funding, inadequate facilities, and insufficient teacher training continue to hinder the full realization of WINS objectives [Mendoza, L. (2020). Challenges in implementing WINS in rural Philippine schools: A case study. *Asian Education Research Journal, 7*(2), 45–55.]. Regionally, the implementation of WINS programs in Northern Luzon has shown promising results, such as improved attendance and reduced hygiene-related illnesses. Despite these positive outcomes, barriers like insufficient funding and teacher training hinder full program adoption. Rural schools are particularly affected, where access to resources remains limited. Addressing these challenges requires focused interventions and stronger support from stakeholders. This situation reflects the broader need for region-specific strategies in WASH program implementation.

In Apayao Province, where education and health challenges are intertwined with geographic isolation and limited resources, the implementation of WINS is particularly critical. Schools in rural areas like Madatag Elementary School often face difficulties in meeting the minimum standards for water and sanitation facilities. This situation compromises students' health, attendance, and overall well-being, highlighting the need for targeted interventions to address these gaps [Villanueva C. WASH challenges in rural schools: A focus on Apayao Province. J Rural Dev Stud. 2021;6(4):223-36.]. In Apayao Province, the need for WASH and WINS programs is critical due to the geographic and resource challenges faced by schools. Madatag Elementary School exemplifies the struggles of rural institutions in providing adequate WASH facilities. These issues impact students' health and attendance, emphasizing the importance of effective program implementation. The local context reveals the disparities between urban and rural schools in achieving national WASH standards. Addressing these local challenges is essential for equitable development.

Numerous studies have highlighted the impact of WASH programs in schools. For instance, Jasper et al. (2012) demonstrated that schools with improved water and sanitation facilities experienced higher attendance rates and reduced waterborne diseases among students [Jasper, C., Le, T., & Bartram, J. (2012). Water and sanitation in schools: A systematic review of the health and educational outcomes. *International Journal of Environmental Research and Public Health, 9*(8), 2772–2787.]. Similarly, research by Freeman et al. (2020) emphasized the importance of comprehensive WASH programs in fostering positive health outcomes and academic achievements [Freeman, M. C., Greene, L. E., Dreibelbis, R., Saboori, S., Muga, R., Brumback, B., et al. (2020). Assessing the sustainability and impact of school WASH programs in low-resource settings. *International Journal of Hygiene and Environmental Health, 228*, 113–125]. However, few studies focus on the extent of WINS implementation in specific local contexts, leaving gaps in understanding how national policies are translated into practice at the grassroots level. Previous studies have established the benefits of WASH programs, such as higher attendance rates and reduced diseases in schools. Research by Jasper et al. (2012) and Freeman et al. (2020) demonstrates the positive health and educational outcomes of these programs. However, there is limited research on the specific implementation of WINS in rural schools. These gaps in the literature highlight the need for localized studies to assess program effectiveness. Understanding these contexts can inform strategies for improving WASH services in schools.

This research assesses the extent of the implementation of the WASH and WINS program in Madatag Elementary School, a rural school in Apayao Province. It seeks to evaluate the programs in providing students with safe water, functional sanitation, and adequate hygiene education. By focusing on this specific context, the study aims to contribute to the growing body of literature on WASH in Schools while providing actionable insights for improving program implementation in similar settings.

2. Statement of the problem

Generally, it seeks to answer the following:

1. What is the profile of the respondents:
   1. Age;
   2. Sex;
   3. Grade level/ position?
2. What is the extent of the implementation of WASH program in Madatag Elementary School?
3. Is there a significant difference in the extent of the implementation of the WASH when respondents are grouped according to profile?
4. What are the problems encountered in the implementation of WASH program?

3. METHODOLOGY

3.1 Research Design

The researcher used a Mixed-Method with a survey design. The study aims to assess the adequacy of WASH in school (WINS) facilities, integration of hygiene education, and challenges in implementation at Madatag Elementary School. The descriptive design gathered detailed information on participants' age, grade level, and academic performance, as well as program implementation. The correlational approach examined the relationship between program implementation and participant profile variables. The mixed-methods approach provided both quantitative data on the program's impact and qualitative data on challenges and strategies. This ensured a comprehensive understanding of program outcomes and contextual factors.

3.2 Locale of the Study

This study was conducted at Madatag Elementary School, located in the municipality of Kabugao, Apayao.

**3.3 Respondents of the Study**

The respondents of this study included the learners and teachers at Madatag Elementary School. To ensure a comprehensive data collection, total enumeration was used, meaning all learners and teachers were included as respondents.

**3.4 Research Instrument**

The researcher utilized a survey checklist to collect data on the current implementation and progress of the WASH (Water, Sanitation, and Hygiene) and WINS (Wash in School) program. The tool is divided into three parts: Part 1 covers the demographic profile, Part 2 consists of the survey checklist, and Part 3 includes an open-ended question.

Part 1 of the research instrument gathered demographic information about the participants, including their age, gender, and grade level of learners while positions for teachers. It categorized learners by grade level and teachers by their rank, allowing for analysis of how these factors may influence perceptions or experiences with the WinS program. This section helps understand the background of respondents and how their profiles relate to the implementation of the program.

Part 2 consisted of a checklist to assess the implementation of the Water, Sanitation, and Hygiene (WinS) program in schools. Respondents rated various indicators related to water supply, sanitation, hygiene practices, health and safety, and community involvement using a 3-point scale. This section measured the effectiveness and implementation of the program in schools. **The survey checklist was adopted from the DepEd Order No. 10, s. 2016.**

Part 3 was an open-ended question which included to gather detailed insights into any challenges or problems encountered during the program's implementation, providing qualitative data to identify areas for improvement.

**3.5 Data Gathering Procedures**

The researcher seek permission from the Schools Division Superintendent through the Public School District Supervisor to allow the conduct the study. The researchers personally distributed and retrieved the questionnaires to all the respondents with the content of the questionnaires being explained to them clearly and answers were treated with confidentiality. Data gathered were analyzed and interpreted.

**3.6 Statistical Analysis**

*Descriptive Statistics.* Descriptive statistics was used to summarize and describe the demographic profile of the respondents (learners and teachers), including age, grade and level/position. These data were presented using frequency counts, percentages, mean, and standard deviation to describe the distribution and central tendency of the variables.

*Table 1. Scale for Extent of Implementation*

|  |  |  |  |
| --- | --- | --- | --- |
| Score | Mean Range | Descriptive Value | Descriptive Interpretation |
| 3 | 2.34 – 3.0 | Fully Implemented | The school fully meets the standard for the specific indicator. All requirements are in place and functioning as intended, ensuring optimal health, hygiene, and sanitation practices. |
| 2 | 1.67 – 2.33 | Partially Implemented | The school meets some but not all of the requirements. There may be partial implementation of the indicator, but some areas require improvement or maintenance. |
| 1 | 1.0 – 1.66 | Not Implemented | The school does not implement the indicator at all. There is no observable effort to address the issue, and no facilities or practices are in place. |

*Weighted Mean*: Determined the extent of implementation of the Water, Sanitation, and Hygiene (WASH) Program in Madatag Elementary School.

*T-test*: A T-test (for comparing two groups) was used to examine whether there are significant differences in the implementation of WASH and WINS programs based on participants' demographic characteristics.

*Qualitative Data Analysis*

For the qualitative data (problems), thematic analysis was employed. This involved identifying, analyzing, and reporting themes or patterns in the data from interviews or open-ended survey questions. This helped provide deeper insights into the challenges faced by the participants and the strategies for improving the implementation of the programs.

1. RESULTS AND DIScussion

***Table 2: Profile of the Respondents***

|  |  |  |
| --- | --- | --- |
| **Demographic Profile** | **Frequency** | **Percentage**  **(%)** |
| **Age** | | |
| 5-6 years old | 9 | 14.06 |
| 7-8 years old | 13 | 20.31 |
| 9-10 years old | 17 | 26.56 |
| 11-12 years old | 17 | 26.56 |
| 13-14 years old | 2 | 3.13 |
| 28 year old and above | 6 | 9.38 |
| **Total** | **64** | **100** |
| **Sex** | | |
| Male | 34 | 53.13 |
| Female | 30 | 46.88 |
| **Total** | **64** | **100** |
| **Grade Level/Plantilla Position** | | |
| Kindergarten | 5 | 7.81 |
| Grade 1 | 6 | 9.38 |
| Grade 2 | 7 | 10.94 |
| Grade 3 | 7 | 10.94 |
| Grade 4 | 12 | 18.75 |
| Grade 5 | 7 | 10.94 |
| Grade 6 | 14 | 21.88 |
| Teacher I | 2 | 3.13 |
| Teacher III | 4 | 6.25 |
| **Total** | **64** | **100** |

Table 2 showed the demographic profile of the 64 respondents in the study on the extent of implementation of the WASH in Schools (WinS) program reveals a balanced distribution across various age groups, with the highest representation coming from learners aged 9 to 12 years old (53.12%), followed by those aged 7 to 8 years old (20.31%). The sample also included younger children aged 5 to 6 years (14.06%) and a small number of adolescents aged 13 to 14 (3.13%) and 15 years and above (9.38%). In terms of sex, the group comprised slightly more males (53.13%) than females (46.88%), indicating an even gender representation. Grade level data shows a progressive spread from Kindergarten through Grade 6, with Grade 6 learners having the highest representation (21.88%). The inclusion of teachers, particularly Teacher I and Teacher III positions (9.38% combined), adds depth to the evaluation of the program’s implementation from both learner and educator perspectives. The implication of this demographic profile is that the findings of the study are grounded in a diverse and representative sample of the school population, providing a comprehensive overview of how WASH initiatives are perceived and experienced across different age groups and stakeholder roles within the school environment. This inclusive representation is critical in assessing the effectiveness and reach of the program and in formulating targeted improvements. These results align with the study of [13], which emphasized the importance of assessing WASH implementation through a diverse respondent base that includes both learners and educators. The research found that including various age groups and stakeholders allows for a more comprehensive understanding of the effectiveness, challenges, and sustainability of WASH programs in rural Philippine schools. The demographic diversity observed in the present study similarly strengthens the reliability and relevance of the findings, ensuring that insights are reflective of the broader school community’s experience.

**Table 3: Extent of Implementation of the WASH Program in Madatag Elementary School**

|  |  |  |
| --- | --- | --- |
| **Indicators** | **Mean Range** | **Descriptive Value** |
| ***1. Water Supply*** | | |
| *Availability of safe drinking water:* Schools must provide clean, safe drinking water for students and staff. | 2 | Partially Implemented |
| *Functionality of water points:* The presence of functional water points, such as handwashing stations, drinking fountains, and water dispensers, which are accessible to students and staff. | 2 | Partially Implemented |
| *Water quality:* Regular monitoring and testing to ensure the water meets health standards. | 1 | Not Implemented |
| ***Category Mean*** | **1.67** | **Partially Implemented** |
| ***2. Sanitation*** | | |
| *Adequate and functional toilet facilities:* Schools must have enough toilets for students and staff, meeting the pupil-to-toilet ratio as recommended by health standards. | 2 | Partially Implemented |
| *Proper waste disposal systems:* Functional systems for disposing of waste, including trash bins and segregated waste management (e.g., biodegradable and non-biodegradable). | 3 | Fully Implemented |
| *Gender-segregated toilets:* Availability of separate toilets for male and female students, and provision for menstrual hygiene management for female students. | 2 | Partially Implemented |
| *Cleanliness and maintenance:* Toilets and sanitation facilities must be regularly cleaned and maintained. | 2 | Partially Implemented |
| ***Category Mean*** | **2.25** | **Partially Implemented** |
| ***3. Hygiene Practices*** | | |
| *Handwashing facilities:* Availability of soap and water at handwashing stations in key areas (e.g., classrooms, toilets, and cafeterias). | 2 | Partially Implemented |
| *Supervised handwashing practices:* Schools must ensure that students wash their hands regularly, especially before eating, after using the toilet, and during illness outbreaks. | 3 | Fully Implemented |
| *Hygiene education:* Ongoing health and hygiene education programs, teaching students proper handwashing, tooth brushing, and personal hygiene. | 3 | Fully Implemented |
| ***Category Mean*** | **2.67** | **Partially Implemented** |
| ***4. Health and Safety*** | | |
| *School health policies:* Implementation of health policies related to hygiene, sanitation, and safety, aligned with national health guidelines. | 2 | Partially Implemented |
| *Training and capacity building:* Regular training for school staff (teachers, janitors, health personnel) on maintaining WASH facilities and promoting hygiene education. | 2 | Partially Implemented |
| *Emergency preparedness:* Availability of emergency hygiene kits, such as soap, water, and disinfectants, particularly in the case of outbreaks or disasters. | 2 | Partially Implemented |
| ***Category Mean*** | **2.00** | **Partially Implemented** |
| ***5. Community Involvement*** | | |
| *Community engagement:* Active participation of local communities, parents, and local government units in supporting the WinS program. | 2 | Partially Implemented |
| *Monitoring and evaluation:* Regular monitoring and evaluation of WinS activities through self-assessment tools, school-based reviews, and reports to ensure sustainability. | 2 | Partially Implemented |
| ***Category Mean*** | **2.00** | **Partially Implemented** |
| ***OVERALL MEAN*** | **2.12** | **Partially Implemented** |

The findings revealed in Table 3 that the implementation of the WASH (Water, Sanitation, and Hygiene) program at Madatag Elementary School is generally rated as "Partially Implemented" with an overall mean score of 2.12. Among the five major components assessed, Hygiene Practices garnered the highest mean (2.67), indicating stronger efforts in areas such as supervised handwashing and hygiene education, both of which were fully implemented. However, critical areas such as Water Supply and Health and Safety scored lower, with category means of 1.67 and 2.00 respectively, highlighting gaps in water quality monitoring and emergency preparedness. Sanitation and Community Involvement also remained only partially implemented, suggesting the need for further improvement in infrastructure maintenance and stakeholder engagement. These results imply that while there are commendable practices in place, particularly in hygiene promotion, the school still faces significant challenges in ensuring safe water access, sustainable sanitation, and a fully integrated health and safety strategy. To enhance the overall effectiveness and sustainability of the WASH program, targeted interventions are needed, including infrastructure upgrades, strengthened community partnerships, regular training for staff, and systematic monitoring and evaluation mechanisms. These results aligned in the study of [11], which examined the challenges in implementing the WINS (Water, Sanitation, and Hygiene in Schools) program in rural Philippine schools. In Mendoza's case study, similar issues were identified, particularly in the partial implementation of water quality monitoring, limited emergency preparedness, and the need for stronger community involvement. The findings emphasized that while hygiene education was often successfully delivered, infrastructural deficiencies and limited stakeholder engagement hindered the full realization of the program’s goals, mirroring the situation observed at Madatag Elementary School.

**3. DIFFERENCE IN THE EXTENT OF WASH PROGRAM IMPLEMENTATION ACCORDING TO RESPONDENTS’ PROFILE VARIABLES**

**Table 4: Difference in the Extent of WASH Program Implementation According to Age**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age Group** | **Mean** | **SD** | **F-value** | **p-value** | **Decision at** | **Interpretation** |
| 5-6 years old | 2.13 | 0.00 | 3.14 | 0.034 | Reject Ho | Significant |
| 7-8 years old | 2.13 | 0.00 |
| 9-10 years old | 2.11 | 0.04 |
| 11-12 years old | 2.10 | 0.05 |
| 13-14 years old | 2.10 | 0.04 |
| 28 years old and above | 2.06 | 0.07 |

Table 4 revealed a statistically significant difference in the extent of WASH program implementation across various age groups, as indicated by an F-value of 3.14 and a p-value of 0.034, which is below the significance level of 0.05. This suggests that age plays a meaningful role in how the WASH program is experienced or perceived. The mean ratings slightly decrease from the youngest group (5–6 years old) to the oldest group (28 years old and above), ranging from 2.13 to 2.06, with minimal variation (SD ranging from 0.00 to 0.07). This trend may imply that younger children are either more exposed to or more positively influenced by WASH activities, possibly due to targeted efforts at lower grade levels or their increased receptiveness to hygiene routines. The implication is that as students age, reinforcement of WASH practices may taper off or become less engaging, suggesting a need to strengthen age-appropriate WASH interventions, especially for older students and adults involved in the school environment, to ensure consistent and sustained hygiene practices throughout the entire school community. The results aligned in the study [11], who assessed the impact of WASH in schools in rural communities of the Philippines. Their findings emphasize that younger students tend to benefit more visibly from WASH interventions, often due to more direct programming at the early grade levels and higher levels of supervision. The study noted a decline in sustained engagement and hygiene behavior reinforcement among older students, underscoring the need for continuous age-appropriate strategies to maintain hygiene practices as learners grow.

**Table 5: Difference in the Extent of WASH Program Implementation According to Sex**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sex Group** | **Mean** | **SD** | **t-value** | **p-value** | **Decision at** | **Interpretation** |
| Male | 2.11 | 0.05 | 0.43 | 0.668 | Accept Ho | Not Significant |
| Female | 2.12 | 0.04 |

Table 5 revealed that there is no statistically significant difference in the extent of WASH program implementation in schools when analyzed according to sex, with male respondents recording a mean of 2.11 (SD = 0.05) and female respondents a slightly higher mean of 2.12 (SD = 0.04). The computed t-value of 0.43 and corresponding p-value of 0.668 are both insufficient to reject the null hypothesis at the 0.05 level of significance. This indicates that the implementation of the WASH program is perceived to be consistent across male and female groups. The implication of this result suggests that the program delivery and access to water, sanitation, and hygiene-related resources and services in schools are gender-inclusive and equitably distributed. Therefore, continued efforts should focus on maintaining this parity while also enhancing the overall quality and reach of WASH initiatives regardless of demographic profiles. These results aligned in the study of [13], which emphasized that the implementation of WASH programs in rural Philippine schools showed consistent access to water, sanitation, and hygiene services across different student demographics, including gender. Their findings highlighted the importance of equitable infrastructure and program delivery, which supports the conclusion that WASH implementation is generally inclusive and not significantly influenced by sex-based differences in perception or access.

**Table 6: Difference in the Extent of WASH Program Implementation According to Grade Level/Plantilla Position Group**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Grade Level/Plantilla Position Group** | **Mean** | **SD** | **F-value** | **p-value** | **Decision at** | **Interpretation** |
| Kindergarten | 2.13 | 0.00 | 2.09 | 0.089 | Accept Ho | Not Significant |
| Grade 1 | 2.13 | 0.00 |
| Grade 2 | 2.13 | 0.00 |
| Grade 3 | 2.13 | 0.00 |
| Grade 4 | 2.10 | 0.04 |
| Grade 5 | 2.09 | 0.05 |
| Grade 6 | 2.10 | 0.04 |
| Teacher I | 2.06 | 0.08 |
| Teacher III | 2.06 | 0.09 |

Table 6 showed that the extent of implementation of the WASH (Water, Sanitation, and Hygiene) Program across various grade levels and plantilla position groups is relatively consistent, with mean scores ranging narrowly from 2.06 to 2.13 and standard deviations mostly close to zero. The computed F-value of 2.09 and the corresponding p-value of 0.089 indicate no statistically significant difference in implementation levels among the different groups at the 0.05 level of significance, leading to the acceptance of the null hypothesis. This suggests that the implementation of the WASH Program is uniformly practiced across grade levels and teaching positions within the school. The implication is that while there may be slight variations, the program is generally implemented in a consistent manner across the institution, reflecting a standardized approach. However, the lack of significant differentiation could also suggest limited responsiveness to the specific needs or contextual challenges faced by individual grade levels or teaching roles, pointing to the potential benefit of tailoring aspects of the program to better support diverse stakeholder needs. These results align with the findings of [5], who emphasized the consistent implementation of the WASH program in rural Philippine schools despite infrastructural challenges, highlighting strong policy adherence across grade levels.

**4. COMMON PROBLEMS ENCOUNTERED IN THE IMPLEMENTATION OF THE WASH PROGRAM IN MADATAG ELEMENTARY SCHOOL**

Theme 1: Inadequate Water Supply

One of the most prominent challenges in the implementation of the WASH program at Madatag Elementary School is the persistent inadequacy of water supply. Repeated references to the *“lack of water,”* especially during the dry summer months, highlight a chronic issue that severely undermines the school's ability to maintain proper hygiene and sanitation standards. The scarcity of water compromises basic activities such as handwashing, toilet flushing, and cleaning, which are all critical components of effective hygiene practices. This systemic issue not only hinders the functionality of sanitation facilities but also increases students’ vulnerability to disease and discomfort. The problem reflects a broader infrastructural gap that must be addressed to ensure the WASH program’s objectives are realized.

Theme 2: Insufficient Hygiene Materials

The shortage of essential hygiene materials, particularly soap, presents another critical barrier to effective WASH program implementation. Statements such as *“do not have enough soap to supply all learners”* illustrate how the lack of basic supplies renders hygiene education less impactful. While students may receive instruction on the importance of handwashing and cleanliness, the absence of necessary materials prevents them from practicing these behaviors consistently. This disconnects between knowledge and practice weakens the school’s efforts to instill lifelong hygiene habits. The challenge underscores the need for a reliable and sustained supply of hygiene resources to support health-promoting behaviors.

Theme 3: Unsafe or Untreated Water

Concerns over water safety further complicate the situation at Madatag Elementary School. Participants noted that *“the water is unsafe to drink”* and pointed out the lack of regular water testing and monitoring. These insights reveal a serious health hazard, as students may be exposed to waterborne pathogens, undermining the very purpose of the WASH program, which is to foster a safe and healthy learning environment. The absence of water quality assurance not only endangers students' well-being but also creates anxiety and reluctance to utilize available water sources. Ensuring potable water through regular testing and treatment is therefore essential to align WASH implementation with its health-based objectives.

Theme 4: Lack of Infrastructure

The limited availability of handwashing stations is a substantial infrastructural barrier to effective hygiene practices. Comments like *“not enough handwashing stations”* point to the physical inadequacy of the school’s sanitation facilities. Even with adequate water and hygiene materials, the absence of proper infrastructure restricts students' ability to maintain personal cleanliness. Hand hygiene is a key defense against illness transmission in schools, and without sufficient facilities, large numbers of students may be unable to wash their hands at critical times such as before meals or after using the toilet. This shortfall calls for targeted investment in sanitation infrastructure to ensure accessibility and promote consistent hygiene habits among all learners.

These results aligned in the study of [6], who extensively documented the critical infrastructural and resource-based challenges faced by rural Philippine schools in implementing the WINS (WASH in Schools) program. Her case study echoes the findings at Madatag Elementary School, particularly regarding insufficient hygiene materials and a lack of reliable water supply, both of which greatly hinder the sustainability and effectiveness of hygiene interventions. Similarly, [7] emphasized how water scarcity and inadequate sanitation infrastructure in Apayao Province created substantial barriers to effective hygiene promotion, mirroring the experiences in Madatag where handwashing stations are limited and often non-functional. Additionally, [13] highlighted the disconnect between WASH education and practice in rural communities, noting that while awareness is high, implementation is severely hampered by the unavailability of soap, safe water, and basic sanitation resources—again paralleling the scenario at Madatag Elementary. Furthermore, [2] reinforced these localized findings on a global scale, indicating that millions of schools, especially in low-resource settings, lack access to basic water and sanitation services, which are essential to protect children’s health and ensure educational continuity. These aligned studies underline that the problems at Madatag Elementary are not isolated but are part of a broader systemic issue that requires comprehensive policy support, infrastructure investment, and sustained community engagement to achieve the WASH program’s intended impact.

1. **CONCLUSION**

The Implementation of WASH (water, sanitation and hygiene) in School (WinS) Program in Madatag Elementary School is Partially Implemented. However, challenges like insufficient water supply, lack of hygiene materials, and limited infrastructure hinder success. The program requires integrated planning, targeted investment, and stakeholder collaboration to address these issues and achieve its intended impact. Addressing these issues through targeted investment, stakeholder collaboration, and proactive planning is essential for the program to achieve its intended impact.

Consent:

I affirm that the respondent’s voluntary agreed to participate after being fully informed about the purpose, nature and potential implications of the study. Their responses have been collected with utmost respect for their privacy and confidentiality, in accordance with ethical research guidelines.

Ethical approval:

The study was conducted with the approval and accordance with the standards of the Elementary. The research followed all applicable ethical guidelines, ensuring respect for the respondents’ privacy and confidentially.

**Disclaimer (Artificial intelligence)**

Option 1:

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

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