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Implementation of Wash in Schools (WINS)

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Abstract:

The Department of Education (DepEd) formally established the Comprehensive WASH in Schools (WinS) Program through DepEd Order No. 10, s.2016. By establishing minimal requirements for water, sanitation, and hygiene facilities and encouraging students to change their behavior, this policy seeks to institutionalize WASH in basic education schools (DepEd, 2016). This study aimed to determine the extent of implementation of wash in schools in a medium sized schools' division in Southern Negros for the School Year 2024-2025 using the researcher-made questionnaire to the 151 respondents that has passed the rigorous validity and reliability tests. The findings indicated that the majority of respondents were female, from the secondary level, and located in far schools. The extent of WinS implementation was found to be at a very great extent, even when analyzed when grouped according to different variables, including in comparative analysis. The findings call for programs where schools can further expound and continue best practices of the Wins Implementation.

Keywords: *Wash in School, Water Access, Sanitation, Hygiene, Deworming, and Health Education*

Introduction:

Nature of Problem

One of the major programs advocated by United Nations Children's Fund (UNICEF) to ensure a safe learning environment for school children is the Wash in School (WinS). It is one of the components of the organization's child-friendly, equitable, and quality basic education program. Through DepEd Order No. 10, s., the Philippine Department of Education (DepEd) formally established the Comprehensive WASH in Schools (WinS) Program. 2016. By establishing minimal requirements for water, sanitation, and hygiene facilities and encouraging students to change their behavior, this policy seeks to institutionalize WASH in basic education schools (DepEd, 2016). Galing et al. (2023) claim that many schools have attained at least basic WASH services, demonstrating the substantial improvement in school sanitation and hygiene standards brought about by the DepEd WinS program. But there are still difficulties in guaranteeing sustainability, especially in isolated places. The advent of new normal education poses a new learning avenue that requires the adjustment and enhancement of programs in accordance with the present situation. It is in this premise that the researcher aims to determine the wash in school implementation in a post-pandemic among its components as basis for an enhancement plan. Further, the findings of the study will be beneficial to improving the school's best practices.

Current State of Knowledge

The WASH in Schools (WinS) program in the Philippines serves as a localized response to global WASH priorities, promoting equity by addressing disparities in access to water, sanitation, and hygiene in public schools, especially in rural and underserved areas (Dela Cruz & Santos, 2022). The initiative ensures inclusive support for all schools regardless of location, aligning with the broader goal of creating safe, healthy, and dignified learning environments. Navarro and Santos (2022) highlight the integration of hygiene and health education across various school settings, while Lopez and Ramirez (2023) stress the importance of using IEC materials in resource-constrained areas to reinforce WASH practices.

Continuous infrastructure investment, paired with regular monitoring, is crucial for sustaining children's access to safe water and sanitation (MDPI, 2024). Although schools with proper facilities exist, Sahoo et al. (2020) observed limited student engagement in hygiene activities. Oral health programs like supervised fluoride toothbrushing have

been shown to reduce dental caries (Smith et al., 2023; Pasewaldt et al., 2019). Similarly, Patel et al. (2023) and Ndlovu & Bhana (2022) underscore the challenges girls face due to inadequate menstrual hygiene infrastructure, while Johnson et al. (2023) note that lack of such facilities diminishes student participation in hygiene routines. Gonzalez et al. (2024) affirm that improved hygiene facilities and education lead to better attendance, academic performance, and health.

Deworming remains an essential health measure. Routine treatment significantly reduces soil-transmitted helminths (Brooker et al., 2023), especially when reinforced by community support and education (Kimani et al., 2023). However, challenges persist, such as the lack of updated WASH materials (Jasper, Le & Bartram, 2020) and limited WASH content in teacher training programs (Aluko & Agboola, 2023).

Global frameworks recognize WASH as critical to both education and health. UNICEF and WHO (2023) emphasize the role of safe, gender-sensitive restrooms in reducing absenteeism, particularly among adolescent girls. UNESCO and UNICEF (2023) also assert that proper sanitation is a fundamental human right. MHM infrastructure is essential for girls' well-being and participation (VanLeeuwen & Torondel, 2021).

Biran et al. (2020) caution that the absence of soap and supervision limits health benefits, underscoring the need for behavior-focused routines. Hulland et al. (2021) found that group handwashing and hygiene education reduce infection spread. Toothbrushing programs, especially with fluoride, help prevent cavities (Petersen et al., 2022; WHO, 2023). Deworming's success is maximized when integrated with broader WASH measures (Freeman et al., 2021), supported by community involvement (Ahmed & Rahman, 2024) and teacher training (UNICEF, 2022).

Theoretical Underpinnings

This study is grounded in Sanitation Theory, which underscores the vital role of hygiene and proper sanitation in promoting health, well-being, and social progress. The theory highlights that access to clean water, safe waste disposal, and hygiene practices are essential to preventing disease, protecting dignity, and reducing health risks such as diarrhea, cholera, and parasitic infections (WHO, 2022). In line with this, the Department of Education (2016) adopted these principles in the design of the WASH in Schools (WinS) program—aiming to improve both learning and health outcomes through sustainable, school-based WASH interventions, consistent with the State's duty to uphold children's rights to safety, dignity, and holistic development.

Objectives

This study aimed to determined: 1) What is the profile of the respondents in terms of the school size, level and schools location, 2) What is the extent of implementation of wash in schools based on the following components (a) Water Access, (b)Sanitation (c) Hygiene, (d) Deworming, (e) Health Education, 3) What is the extent of implementation of wash in schools when grouped according to the aforementioned variables and 4) Is there a significant difference in the extent of implementation of wash in schools when grouped and compared according to the aforementioned variables.

Methodology:

This section delves into various components crucial to the research, such as the chosen research design, locale of the study, respondents of the study, data gathering instrument and procedure, and the statistical tools employed for data analysis. These aspects are essential in producing significant findings for the study.

Research Design

Descriptive research design was employed to determine to determine the extent of implementation of wash in schools in a medium sized schools' division in Southern Negros for the School Year 2024-2025. Descriptive research, according to Ary et al. (2023), is a technique that focuses on characterizing existing conditions, identifying norms or standards, and identifying links within a population or sample without drawing conclusions about causality.

Respondents

The respondents of the study were 151 teachers from the total population of 247. Stratified random sampling with Cochran formula was used to determine that actual respondents. The respondents were randomly selected by the researcher from each school using the lottery technique.

Instruments

The researchers developed a two-part questionnaire to gather data for the study: Part I focused on the socio-demographic profile of schools, while Part II assessed the extent of Wash in School (WinS) implementation using a

5-point Likert scale. To ensure the instrument's validity, three qualified experts in education and public health evaluated it based on the standards set by Carter V. Good and Douglas E. Scates. The questionnaire received an average validity score of 4.57, interpreted as excellent. For reliability, the instrument was pilot-tested with 30 teachers from a nearby division, and the results were analyzed using Cronbach's alpha, yielding a score of 0.842, which is considered good. These results confirm that the questionnaire is both valid and reliable for use in assessing WinS implementation.

Data Gathering Procedure

Once the validity and reliability of the research questionnaire is done, the researcher will then write a letter to the Schools Division Superintendent requesting permission to conduct a study with specified teachers. The researcher will ask the school head for help for the conduct of the research questionnaire to make the research easier.

Following the retrieval of the necessary number of responds, they were collected and subjected through data analysis. The data gathered will be then analyzed using the Statistical Package for Social Sciences (SPSS) software to give a meaningful analysis of the study.

Data Analysis and Statistical Treatment

Suitable statistical tools will be employed to give appropriate and significant results of the research study. Objective No. 1 used the Frequency and percentage to describe the school size, level and school location. Objective No. 2 used the Mean to determine extent of the wash in school implementation as to Water Access, Sanitation, Hygiene, Deworming, and Health Education. Objective No. 3 used the Mean to determine the extent of the wash in school implementation when grouped according to the aforementioned variables. Objective No. 4 used the Mann Whitney U test to determine the significant difference in the wash in school implementation when grouped and compared according to the aforementioned variables.

Ethical Considerations

To maintain the ethical integrity research study, the researcher will write a letter to the Schools Division Superintendent seeking for permission to conduct the research study. The approved letter will be physically affixed to the research questionnaire front page. This proves unequivocally that the researcher has formal permission to carry out the study from the appropriate authorities. All gathered information on the respondents was kept, and they will not precisely disclose their basic information to the public as stipulated under the existing data privacy act. Participants can choose not to answer any questions they feel are unethical or undesirable when filling out the research questionnaire. The gathered data will be carefully analyzed using appropriate statistical tool

Results and Discussion:

The study's findings in alignment with the problem statement. It offers a comprehensive presentation of the collected data, followed by an in-depth analysis and interpretation of the results and their broader implications.

Table 1
Demographic Profile

Variables	Categories	Frequency	Percentage
	Lower	65	43.00
School Size	Higher	86	57.00
	Total	**151**	**100**
	Elementary	64	42.40
Level	Secondary	87	57.60
	Total	**151**	**100**
	Near	39	25.80
School Location	Far	112	74.20
	Total	**151**	**100**

Table 1 presents the demographic distribution of the study's respondents based on school size, level, and location. The results indicate that most respondents were from Higher, Secondary and far school, making this the most represented category. These trends show how engagement in education is influenced by institutional features.

Table 2
The extent of implementation of Wash in School

Variables	Mean	Interpretation
A. Water Access	4.60	Very Great Extent

B. Sanitation	4.58	Very Great Extent
C. Hygiene	4.57	Very Great Extent
D. Deworming	4.65	Very Great Extent
E. Health Education	4.56	Very Great Extent

Table 2 shows the results of the extent of implementation of Wash in School. The results shows that the implementation of the WinS were in Very Great extent. This signifies that the schools highly implemented the WinS program following the guidelines set forth in DepEd Order No 10, s. 2026. Furthermore, Pereira et al. (2024) discovered that while there was an improvement in the availability of safe drinking water in Brazilian schools, there were still insufficient sanitary facilities because of a lack of funding. Additionally, Strong implementation efforts were seen in the Philippines by Dalisay et al. (2024) and Mendez (2024), however they pointed to problems with facility quality and coordination. While Buxton et al. (2022), focused maintenance initiatives enhanced the sanitary conditions in Philippine schools. These results Highlight the necessity of continuous assistance, facilities, and instruction to improve school sanitation.

While Smith et al. (2023) demonstrated the efficacy of school-based oral hygiene programs by finding that frequent group toothbrushing with fluoride significantly lowers dental caries among pupils. Similar to Johnson et al. (2023), who observed that schools with insufficient handwashing stations find it difficult to sustain higher student participation, Lee and Park (2024) reported that although handwashing programs are widely implemented, participation rates vary due to limited access to adequate facilities. Additionally, Gonzalez et al. (2024) showed that offering proper hygiene instruction and infrastructure not only boosts health outcomes but also raises students' general attendance and academic performance.

O'Connell et al. (2022) stressed that although government health officials typically supervise deworming programs, schools usually take the initiative to plan and carry out treatments, especially in places with restricted access to medical personnel. Mwangi et al. (2024), which found that many Kenyan schools effectively oversee deworming initiatives on their own, working with regional health authorities but mostly depending on school personnel to guarantee coverage. Furthermore, Kimani et al. (2023) discovered that maintaining higher deworming participation rates requires active community involvement and strong school leadership, particularly in situations when outside health workers are not continuously available.

Table 3
Extent of Implementation of Wash in Schools in Water Access According to School Size

Categories	**Lower**		**Greater**	
	Mean	Interpretation	Mean	Interpretation
A. Water Access	4.54	Very Great Extent	4.65	Very Great Extent
B. Sanitation	4.55	Very Great Extent	4.60	Very Great Extent
C. Hygiene	4.58	Very Great Extent	4.56	Very Great Extent
D. Deworming	4.68	Very Great Extent	4.63	Very Great Extent
E. Health Education	4.61	Very Great Extent	4.52	Very Great Extent

Table 3 presents the results in the extent of implementation of the Wash in Schools (WinS) program in relation to school size. The results indicate that schools of both lower and higher sizes implemented the Water Access component of the WASH in Schools program to a very high extent. These findings demonstrate a consistent and commendable extent of water access implementation across schools of all sizes.
Many schools in the Philippines still face inadequate access to potable water despite national initiatives, particularly those in underdeveloped or remote locations. This is because local government resources are limited, and national and local bodies do not coordinate well (Dalisay & Mendez, 2024). Students were consequently frequently sent to gather water from outside sources, which not only interfered with instruction but also came at a cost because many schools had to buy water (Boakye & Owusu, 2024).

Moreover, the study by Zenodo (2024) highlighted a strong correlation between students' hygiene practices and the effectiveness of implemented sanitation programs. While Pasewaldt et al. (2019), shows that children's oral health is much enhanced by supervised school-based toothbrushing programs. Sommer et al. (2018) found that poor disposal systems and insufficient menstrual hygiene facilities may negatively impact girls' comfort and school engagement, Highlighting the importance of reducing these inequities.

Furthermore, in keeping with the strong implementation levels seen in schools, this campaign, which is carried out in collaboration with local health units and schools, Highlights the significance of doing deworming on a planned, semi-annual basis (DOH, 2023). In support of this, a study discovered that schools continued to carry out semi-annual deworming activities while adhering to appropriate protocols, such as deworming on a full stomach and keeping an eye out for any negative effects, indicating institutional adaptability and resilience (Manarpiis, 2023).

Additionally, Aluko and Agboola (2023), who found that health education is frequently neglected in teacher professional development programs. Since teachers are the main facilitators of these programs, it is imperative to strengthen their competence to guarantee consistency and depth in health instruction. Mathew and Thomas (2022), who showed that incorporating health education into extracurricular forms increases student participation and learning results.

Table 4
Extent of Implementation of Wash in Schools in Water Access According to Level

Categories	Elementary		Secondary	
	Mean	Interpretation	Mean	Interpretation
A. Water Access	4.60	Very Great Extent	4.60	Very Great Extent
B. Sanitation	4.51	Very Great Extent	4.63	Very Great Extent
C. Hygiene	4.53	Very Great Extent	4.60	Very Great Extent
D. Deworming	4.58	Very Great Extent	4.70	Very Great Extent
E. Health Education	4.55	Very Great Extent	4.57	Very Great Extent

Table 4 shows the results of the Extent of Implementation of Wash in Schools in Water Access According to Level. It shows that the school implemented at a very great extent regardless of its level. The results indicate that the Water Access component of the WASH in Schools (WinS) program has been implemented to a very high degree across different school levels. This demonstrates that ensuring sufficient water access is a priority in both elementary and secondary schools. Such consistent implementation may lead to better student health, enhanced well-being, and fair access to essential hygiene facilities throughout the school system.

According to the World Health Organization (WHO) and UNICEF Joint Monitoring Programme (JMP, 2021), schools must have access to clean drinking water to foster a healthy learning environment, which directly affects students' academic performance and physical well-being. While Dizon et al. (2018) study on WASH in public elementary schools in the Philippines, routine drinking water quality testing greatly enhances student health outcomes.

Effective hygiene treatments, such as oral hygiene, soap handwashing, and menstrual hygiene management (MHM), are crucial elements of inclusive and secure learning settings, according to UNICEF and WHO (2023). Chatterjee et al. (2022), which Highlighted how properly maintained restrooms and efficient wastewater treatment in school's lower infections and improve the learning environment. VanLeeuwen and Torondel (2021), having access to sanitary supplies at school dramatically lowers absenteeism and encourages young females to participate and feel confident.

Furthermore, Biran et al. (2020) stated that although many schools provided handwashing stations, actual utilization rates were impacted by the absence of soap, water, or supervision, particularly in settings with little resources. Hulland et al. (2021), group handwashing and other collective hygiene practices work best when they are incorporated into the school day and supported by instruction.

Additionally, Lo et al. (2022), complete adoption of frequent and universal school-based deworming not only lowers infection rates but also enhances children's physical development, academic performance, and nutritional status. Freeman et al. (2021) emphasized the value of incorporating deworming into already-existing WASH programs in schools, pointing out that sanitation enhancements and hygiene instruction increase the effectiveness of deworming treatments.

Moreover, Hulland et al. (2022) emphasize that to guarantee that hygiene education is not only successfully taught but also integrated into the curriculum and school systems, educators must continuously develop their capacity. While Caruso et al. (2020) stress that family and community involvement is crucial for maintaining behavioral change outside of the classroom, especially in low-resource and rural settings.

Table 5
Extent of Implementation of Wash in Schools in Water Access According to School Location

Categories	Near		Far	
	Mean	Interpretation	Mean	Interpretation
A. Water Access	4.56	Very Great Extent	4.61	Very Great Extent
B. Sanitation	4.58	Very Great Extent	4.58	Very Great Extent
C. Hygiene	4.59	Very Great Extent	4.57	Very Great Extent
D. Deworming	4.57	Very Great Extent	4.68	Very Great Extent
E. Health Education	4.59	Very Great Extent	4.55	Very Great Extent

Table 5 shows the results of the Extent of Implementation of Wash in Schools in Water Access According to School Location. It shows that regardless of the school location either near or far the implementation of the Wash in

School Program was in a very great extent. This suggests that geographical barriers are being effectively addressed, promoting equal access to safe water across all schools. As a result, it supports improved student health, learning conditions, and educational equity, even in geographically disadvantaged areas.
UNICEF (2023), the regular testing of drinking water quality in schools is a strong indicator of institutional commitment to student well-being and public health standards. A study by Garcia et al. (2022) found that schools with Higher compliance in water quality monitoring reported lower incidences of waterborne illnesses and better hydration among students, regardless of urban or rural location. Similarly, research by Tan et al. (2023) revealed that both proximity and administrative oversight significantly influenced the frequency and quality of water testing in public schools.

Moreover, Ahmed et al. (2022) showed that foodborne illness rates were considerably lower in schools where handlers had Great compliance with food safety instruction. Additionally, Santos and Ramirez (2023), who pointed out that better government regulations and awareness initiatives have helped even schools in rural areas meet sanitary standards.

While Patel et al. (2023), which highlighted how easy access to menstrual hygiene products dramatically lowers absenteeism and boosts girls' self-esteem and involvement in school activities.
Ndlovu and Bhana (2022), who found that adequate facilities and privacy are crucial for promoting girls' wellbeing, especially in rural or resource-constrained settings.

On the other hand, WHO (2023) states that community involvement, especially parental awareness and permission, greatly increases the acceptability and efficacy of deworming treatments. Singh et al. (2022) Highlighted that the reach and compliance rates of such programs significantly improve when parents are informed and provide their consent.

Lopez and Ramirez (2023), having information, education, and communication (IEC) materials in strategic school locations—especially in more isolated or distant areas—significantly increases the visibility and impact of health messages and makes it easier for students to be reminded to practice good hygiene daily.

Table 6
Difference in the Extent of Implementation of Wash in Schools in when grouped and compared according to the aforementioned variables

Variables	Water Access	Sanitation	Hygiene	Deworming	Health Education	***Sig. level***	**Interpretation**
	p-value	***p-value***	***p-value***	***p-value***	***p-value***		
School Size	0.247	0.648	0.756	0.418	0.168		Not Significant
Level	0.816	0.154	0.714	0.329	0.872	*0.05*	Not Significant
School Location	0.755	0.677	0.855	0.481	0.864		Not Significant

Table 6 shows the results of the difference in the Extent of Implementation of Wash in Schools when grouped and compared according to the aforementioned variables. The results shows that there is no significant difference in the implementation of Wash in School in all variables when grouped and compared.

This suggests that characteristics like school size, school level, or school location have no bearing on, which is a crucial component in the implementation of the WASH in Schools (WinS) initiative. To put it another way, water accessibility seems to be continuously guaranteed in schools of all sizes, located in both central and distant areas, and catering to both younger and older pupils. This implies that initiatives to establish dependable water infrastructure in schools have been managed successfully and fairly across various educational environments.
The overall efficacy and durability of the WinS program are enhanced by this degree of consistency, regardless of the parameters education systems.

World Bank (2023), This will ensure that all children, regardless of the type or location of their school, can benefit from safe and sufficient water supplies. Similar findings were made by Tan and Mendoza (2022) in the Philippine setting, who found that consistent funding and national policies have resulted in comparatively uniform water supply for public schools in both urban and rural areas.
This implies that the nation's WASH programs are being carried out with an emphasis on equity and inclusivity, guaranteeing that all students have access to basic hygiene supplies, which are vital for fostering dignity, health, and involvement in education.

Conclusion:

The study found that the Wash in Schools (WinS) program was implemented to a very great extent across all key areas—water access, sanitation, hygiene, deworming, and health education—regardless of school size, level, or

location, with no significant differences observed among these variables. Most respondents were female, from secondary schools, and located in remote areas, indicating strong representation from these groups. The consistent high implementation across categories reflects the effectiveness of existing human structures and physical facilities, as well as the collaborative efforts of internal and external stakeholders. The study concluded that the WinS program is being sustained successfully, supported by mechanisms like annual school audits and inter-regional learning exchanges. Based on these findings, it is recommended that school leaders receive enhanced training and support through seminars and workshops, school heads be encouraged to explore varied implementation strategies and develop sustainability plans, and teachers be empowered to align WinS tasks with curriculum goals. The study also encourages future researchers to build on these findings to explore further improvements in the program's implementation.

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