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Implementation of Wash in School (WinS) Program in Bataraza District I

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Abstract

This study evaluated the implementation status and challenges of the Water, Sanitation, and Hygiene in Schools (WinS) Program in Bataraza District I, examining the relationship between school profile variables and WinS status and practices. Anchored on a conceptual framework linking school characteristics to program implementation outcomes, the study employed a quantitative correlational research design. Data were collected from school heads and selected teachers across 31 public elementary and secondary schools using a restructured Likert-scale instrument based on the DepEd Three-Star Approach and researcher-made questionnaires. Frequency, percentage, mean, standard deviation, and Spearman's rho were used for data analysis. Results revealed that both elementary and secondary schools achieved an Evident level of WinS implementation, with stronger performance observed at the elementary level. No significant relationship was found between school profile variables and WinS status, nor between teachers' practices and WinS status. However, a highly significant positive relationship existed between the practices of school heads and WinS coordinators and the overall WinS status. Major challenges included inadequate safe water sources, limited supervision time for hygiene activities, and insufficient funds for oral hygiene kits and infrastructure improvements. The study concludes that leadership practices significantly influence WinS implementation and recommends strengthened policy enforcement, regular evaluation, adequate funding, and enhanced stakeholder collaboration. The findings support Sustainable Development Goals 4 (Quality Education), 3 (Good Health and Well-Being), and 6 (Clean Water and Sanitation). The study contributes to educational, public health, and institutional sustainability by promoting safe learning environments, strengthening governance mechanisms, and informing evidence-based policy planning.

Keywords: Bataraza District I, c, School Profile, Three-Star Approach, Wash, Wins Implementation

1. Introduction

The implementation of the Water, Sanitation, and Hygiene in Schools (WinS) Program plays a critical role in ensuring safe, healthy, and quality learning environments. Despite national policies and monitoring systems, variations in compliance with the Three-Star Approach (TSA) remain evident across schools. This study evaluates the status and challenges of WinS implementation in Bataraza District I by examining the relationship between schools' profiles, including number of teachers, number of students, school category, and nutritional status, and their WinS status and practices. The findings aim to provide empirical evidence to strengthen program planning and implementation within the district.

1.1 WinS Implementation and Learner Health Outcomes in Schools of Bataraza District I

The government recognizes that learners who are safe and healthy are more likely to excel academically and develop into productive citizens. Through the Department of Education, the promotion of correct hygiene and sanitation practices and the maintenance of a clean school environment remain priorities. Overcrowded buildings, lack of clean water and sanitation facilities, poor awareness, inadequate hygiene practices, and lack of a healthy and balanced diet contribute to disease prevalence among schoolchildren (Rivera, 2020). Ensuring safe water, proper sanitation, and hygiene practices in schools is therefore essential to improving learners' health and academic performance. To institutionalize these efforts, DepEd issued DepEd Order No. 10, s. 2016, entitled "Policy and Guidelines for the Comprehensive Water, Sanitation & Hygiene (WASH) in Schools (WinS) Program." The policy mandates schools to provide safe drinking water, functional gender-segregated toilets, and appropriate hygiene facilities to create enabling learning environments. These standards guide all schools nationwide, including those in Bataraza District I, in meeting national WASH requirements and supporting learners' well-being.

1.2 Evidence on WinS Status, Practices, and Implementation Challenges

DepEd WinS Monitoring reports indicate that access to drinking water and water for cleaning is generally adequate in most schools. However, sanitation and hygiene components present persistent challenges. Many schools lack gender-segregated and secure toilets, comprehensive waste segregation systems, and sufficient hygiene materials. Common comfort rooms for boys and girls remain prevalent. Supervised daily group handwashing and toothbrushing activities are difficult to sustain due to insufficient infrastructure, particularly group handwashing facilities with soap. A decline in deworming compliance

during SY 2018–2019 was observed, possibly influenced by parental concerns arising from immunization controversies. Despite these challenges, schools reported that teachers have adequate instructional materials and actively provide WASH information, education, and communication (IEC) materials. Effective implementation is closely linked to school governance and management practices. Udto (2022) emphasized that the proper execution of the school-based management approach significantly impacts WinS implementation, and continuous capacity building and technical assistance contribute to organized and efficient program delivery. These insights highlight the importance of examining how school-level characteristics influence WinS status and practices in Bataraza District I.

1.3 Application of the Three-Star Approach in Assessing WinS Status of Schools in Bataraza District I

The Three-Star Approach (TSA) serves as DepEd's monitoring mechanism for evaluating WinS implementation. It measures schools' compliance with standards related to water access, sanitation facilities, hygiene practices, deworming, and health education. Schools are encouraged to progressively improve their rating to achieve three-star status, which signifies higher compliance with WinS standards. In Bataraza District I, schools adhere to DepEd policies and aim to attain three-star ratings in WinS monitoring. However, several schools have obtained lower star ratings due to contextual constraints. Evaluating the TSA rubrics for the school year 2022–2023 provides an evidence-based assessment of the district's implementation level and identifies areas requiring improvement.

1.4 Conceptual Relationship Between School Profile and WinS Implementation Status

This study is anchored on a framework that examines the relationship between schools' profiles and their WinS implementation outcomes. The school profile, which includes the number of teachers, number of students, school category, and nutritional status, serves as the independent variable. The dependent variables are the status of WinS implementation based on the Three-Star Approach, the practices related to WinS implementation, and the problems encountered during implementation. The framework assumes that structural and demographic characteristics of schools may influence their level of compliance with WinS standards and the effectiveness of implementation practices. By analyzing these relationships, the study determines whether significant associations exist between school profile and WinS status in Bataraza District I.

1.5 Research Gap on School Profile and WinS Status in Bataraza District I

While national monitoring reports describe general trends in WinS implementation, localized empirical assessments examining the relationship between school profile variables and WinS status remain limited. In Bataraza District I, there has been no systematic evaluation of whether the Three-Star Approach rubrics are consistently practiced and achieved across schools. This study addresses this gap by determining the profile of schools in terms of number of teachers, number of students, school category, and nutritional status; assessing the WinS level of implementation based on the Three-Star Approach for SY 2022–2023; examining the significant relationship between school profile and WinS status; and identifying the challenges encountered in implementation. The results will serve as a basis for planning and strengthening the WinS program within the district.

1.6 Alignment of the Evaluation of WinS Status in Bataraza District I with Sustainable Development Goals

The evaluation of WinS implementation in Bataraza District I aligns with Sustainable Development Goal 4, which seeks to ensure inclusive and quality education and promote lifelong learning. Safe and hygienic school environments contribute directly to improved attendance, participation, and academic performance. The study also supports Sustainable Development Goal 3 on Good Health and Well-Being by addressing sanitation, hygiene, and deworming practices that prevent disease among learners. Furthermore, it aligns with Sustainable Development Goal 6 on Clean Water and Sanitation by assessing schools' access to safe drinking water, sanitation facilities, and hygiene infrastructure under the WinS framework.

1.7 Contribution of the Study to Educational, Public Health, and Institutional Sustainability

Evaluating the relationship between school profile and WinS status contributes to educational sustainability by promoting safe and conducive learning environments. It strengthens public health sustainability by identifying sanitation and hygiene gaps that may affect learners' health and nutritional status. The study also enhances institutional sustainability by supporting school-based management practices, evidence-based decision-making, and systematic monitoring of program implementation. Through this evaluation, Bataraza District I can improve policy implementation, resource allocation, and long-term health and educational outcomes.

2. Material and methods

2.1 Research Design

The study utilized a quantitative correlational research design. This approach was appropriate as it assessed the level of WinS implementation and examined the significant relationship between the profile of schools and their WinS status. It also tested the significant relationship between the WinS status of schools and their practices in WinS implementation.

2.2 Locale of the Study
The study was conducted in Bataraza District I, located in Bataraza, Palawan, on the southernmost tip of Palawan Island, approximately 225 kilometers from Puerto Princesa City and about four to five hours travel by land. The municipality has a total land area of 957 square kilometers. Bataraza District I consists of 31 public schools implementing the WinS Program, including 25 elementary schools, five secondary schools, and one integrated school. These schools formed the research setting for evaluating the implementation status of the WinS Program.

2.3 Respondents of the Study
The respondents were all school heads and selected teachers from the 31 public elementary and secondary schools in Bataraza District I. These participants were directly involved in the implementation and monitoring of the WinS Program, making them appropriate sources of data regarding school profile, WinS status, practices, and challenges.

2.4 Sample and Sampling Procedure
The study covered all 31 public elementary and secondary schools in Bataraza District I that implemented the WinS Program. The respondents included school heads and selected teachers from these schools. The research focused on determining school profiles in terms of number of teachers, number of students, WinS status, and nutritional status of learners. It also examined the significant relationships between school profile and WinS status, as well as between WinS status and implementation practices. The scope was limited to school heads and selected teachers in the district, and problems encountered were based on their personal experiences.

2.5 Research Instrument
The study used a restructured and adapted Likert scale instrument based on the DepEd WinS Three-Star Approach, along with a researcher-made questionnaire utilizing a four-point scale (4, 3, 2, 1). Three sets of questionnaires were prepared for school heads, WinS coordinators, and teachers. The questionnaire for school heads consisted of sections covering school profile, challenges encountered, and practices applied in WinS implementation. The instrument for WinS coordinators included items assessing the status of WinS implementation based on the DepEd Three-Star Approach, challenges encountered during implementation, and practices applied. The teachers' questionnaire focused on identifying challenges encountered and practices implemented in relation to the WinS Program. These instruments were designed to gather comprehensive data on implementation status, practices, and problems experienced across schools.

2.6 Data Gathering Procedure
Permission to conduct the study was secured from the Schools Division Superintendent of the Division of Palawan, as well as from the Public Schools District Supervisors, school heads, and teacher-participants of the 31 elementary and secondary schools in Bataraza District I. The instruments were administered either face-to-face or through online surveys. Respondents were informed that the survey was intended solely for research purposes. A one-time allotment was provided for completing the questionnaire. After collection, responses were tallied, tabulated, and prepared for statistical analysis.

2.7 Data Analysis Techniques
Collected data were analyzed using appropriate statistical tools. Frequency count and percentage were employed to describe the school profile. Mean and standard deviation were used to determine the status of schools based on the Three-Star Approach and to assess the practices applied in WinS implementation. Spearman's rho was utilized to determine the significant relationship between school profile and WinS status, as well as between WinS status and schools' implementation practices.

2.8 Ethical Considerations
Permission was secured from the Public Schools District Supervisor of Bataraza District I and from the school heads of the respective elementary and secondary schools. Informed consent was obtained from all participants. The study ensured that no personally identifiable information was disclosed, thereby maintaining confidentiality and ethical compliance throughout the research process.

3. Results and Discussion

3.1 WinS Implementation Status and School Profile

3.1.1 Profile of Schools in Bataraza District I
The district consists of 31 public schools, with 271 elementary teachers (65.14%) and 145 secondary teachers (34.86%). In terms of enrollment, 8,318 learners (63.36%) are elementary pupils, while 4,811 (36.44%) are secondary students. Most schools are categorized as small (58.06%), followed by medium (32.26%) and large (9.68%). These findings indicate that Bataraza District I is predominantly composed of small elementary schools with higher enrollment at the elementary level.

The distribution suggests that implementation demands may be greater in elementary schools due to higher population proportions, which may influence resource allocation and program management.

3.1.2 Nutritional Status of Learners

Results from baseline and endline assessments for SY 2022–2023 show that the majority of both elementary and secondary learners fall within normal nutritional status. However, among 8,365 elementary pupils assessed at endline, 38% (3,256) were not within normal nutritional status. In comparison, only 5.92% (285 out of 4,811) of secondary students were not within normal status. Elementary pupils showed higher rates of wasted and severely wasted conditions compared with high school students. These results reflect ongoing concerns regarding childhood malnutrition. According to the 2022 Global Nutrition Report, the prevalence of stunting among children under five in the Philippines is 28.8%, higher than the Asian regional average of 21.8%. The Foreign Agricultural Services noted that among 12.7 million school-aged children assessed in 2019, 13.2 percent were stunted or wasted. Reports also indicate that childhood malnutrition remains a major concern in economically and geographically deprived areas (Sadag, 2025). The findings confirm that nutritional challenges remain particularly significant at the elementary level.

3.1.3 WinS Status Based on the Three-Star Approach

Overall, elementary schools achieved an Evident level of implementation, while secondary schools were rated Moderately Evident. In water availability, elementary schools obtained a mean of 2.41, interpreted as Moderately Evident, while secondary schools scored 1.80, also Moderately Evident. Elementary schools did not provide safe drinking water, requiring learners to bring their own, whereas secondary schools provided free drinking water at all times. Water quality testing in both levels was only moderately evident, and more frequent testing was rarely practiced. For sanitation, elementary schools achieved an overall mean of 2.94 (Evident), while secondary schools scored 2.42 (Moderately Evident). Hygiene practices were Evident in elementary schools (2.91) but Moderately Evident in secondary schools (1.94), with several supervised handwashing and toothbrushing indicators rated Not Evident in secondary schools. Deworming was Moderately Evident in both elementary (1.90) and secondary (1.50) schools. Health education was Evident in elementary schools (3.11) and Moderately Evident in secondary schools (2.40). These findings indicate stronger implementation at the elementary level compared to secondary schools, particularly in sanitation and hygiene. The lack of consistent water testing and limited deworming coverage highlight gaps in preventive health practices. According to Khatoon et al. (2017), hygiene education in schools is essential for reducing infectious diseases, and younger learners are more responsive to adopting healthy behaviors. McMichael (2019) emphasized that understanding the educational and health impacts of WASH initiatives is critical for effective program design and funding allocation. The findings suggest that while implementation is evident, systemic strengthening is needed to ensure sustainability and compliance with standards.

3.2 Relationship Between School Profile and WinS Status

Results of the Spearman rho analysis revealed low positive correlations between school profile variables and WinS components; however, all p-values were greater than 0.05. This indicates that there is no significant relationship between number of teachers, number of students, school category, or nutritional status and the WinS status of schools. These results suggest that school size, enrollment, and nutritional profile do not significantly influence the level of WinS implementation in the district. This finding contrasts with studies showing significant relationships between WASH attributes, academic performance, and school type (Nounkeu et. al, 2023). The lack of significant association implies that other factors, such as governance and leadership practices, may play a more decisive role in implementation effectiveness.

3.3 Relationship Between WinS Status and Implementation Practices

Findings indicate no significant relationship between teachers' practices and WinS status. However, there is a very strong positive correlation between the practices of WinS coordinators and school heads and all components of WinS status, including water availability, sanitation, hygiene, deworming, and health education. These relationships were highly significant at the 0.01 level. The strong correlation suggests that the practices of school heads and coordinators directly influence overall WinS performance. This can be attributed to the fact that assessment of WinS status is based on the execution of specific practices. Under RA 9155, school heads serve as instructional leaders and administrative managers responsible for school operations, resource management, and stakeholder engagement, which explains their significant impact on implementation outcomes. Although teachers' practices were not significantly correlated with overall status, their role remains essential. As stipulated in DM 66, s. 2018 under WASH in School (Brigada Implementation), teachers are responsible for teaching proper hygiene practices and modeling correct behaviors for learners.

3.4 Challenges Encountered in WinS Implementation

Elementary teachers generally rarely encountered challenges, with the most recurring issue being the unavailability of safe and adequate water sources. Secondary teachers also rarely encountered challenges; however, lack of time in supervising toothbrushing and handwashing due to ancillary tasks was identified as a major issue. Elementary school heads sometimes encountered challenges, particularly lack of funds for oral hygiene kits and insufficient funds for infrastructure improvements. Secondary school heads rarely encountered issues but similarly cited lack of funding for oral hygiene kits.

Elementary WinS coordinators rarely encountered challenges, while secondary coordinators reported never encountering most issues. These findings highlight funding and infrastructure limitations as persistent barriers. Quinan (2025) cited insufficient funding and teacher workload as barriers in WASH implementation. Chikwanu (2014) identified inadequate funding and unreliable water supply as major constraints. Olukanni (2014) attributed poor WASH implementation to inadequate budgetary allocations and lack of policy enforcement. Mensah et al. (2022) concluded that insufficient financing and poorly functioning WASH committees undermine sustainability. Similarly, studies found WinS to be only partially implemented due to inadequate water supply, insufficient hygiene materials, and lack of infrastructure (Quinan, 2025; Mendoza, 2020). These studies support the conclusion that financial and structural constraints remain critical implementation barriers.

3.5 Practices in the Implementation of WinS

Both elementary and secondary teachers agreed that most WinS practices were implemented, particularly provision of trash bins, strict waste segregation, ensuring functional Material Recovery Facilities, supporting deworming, inclusion of WinS in INSET, and strengthening stakeholder partnerships. However, both groups affirmed that annual water testing was not practiced. Elementary WinS coordinators agreed that most practices were implemented, while secondary coordinators disagreed with several indicators but agreed on the provision of trash bins and ensuring functional Material Recovery Facilities. School heads agreed on most practices, particularly maintaining functional Material Recovery Facilities, but disagreed on consistent provision of free drinking water, adequate genderized comfort rooms, and annual water testing. These findings suggest that visible and structural practices such as waste management are more consistently implemented than technical health safeguards such as water testing. The lack of annual water testing poses potential health risks and indicates gaps in compliance with standards. According to the World Health Organization, access to handwashing facilities with soap and water on premises remains a key global indicator of WASH performance. While 93% of public schools joined WinS monitoring in 2023, sustained compliance with water safety monitoring requires stronger institutional enforcement and resource support.

4. Conclusion & Recommendations

The findings reveal that both elementary and secondary schools in Bataraza District I achieved an Evident level of implementation of the WinS Program based on the Three-Star Approach. The results further indicate that school profile variables, including number of teachers, number of students, school category, and nutritional status, are not significantly related to WinS status. Teachers' practices were also not significantly associated with WinS status; however, a highly significant positive relationship was found between the practices of school heads and WinS coordinators and the overall WinS status of the schools. The most recurring concern among elementary teachers was the unavailability of safe and adequate water sources, while secondary teachers identified lack of time for supervising tooth brushing and handwashing due to ancillary tasks as a major issue. Additionally, both elementary and secondary school heads cited insufficient funds for the provision of oral hygiene kits as a common challenge.

It is recommended that the Department of Education strengthen the implementation of the WinS Program by issuing updated regulations, conducting regular evaluations of its phases, allocating adequate funds, enhancing stakeholder partnerships, and supporting the provision of water sources and additional toilet facilities. School heads should strictly implement and regularly evaluate the WinS Program, ensure active teacher participation, strengthen stakeholder collaboration particularly in ensuring safe and adequate water sources, assess the implementation phases of related school programs to identify issues, provide timely feedback, and ensure annual water testing in schools. Teachers should actively participate in planning WinS implementation, perform their roles in supervising tooth brushing and handwashing activities and maintaining clean facilities, and communicate issues encountered during implementation. Future researchers are encouraged to replicate the study in other districts and across different school years to generate continuous data on WinS implementation.

This study was limited to public elementary and secondary schools in Bataraza District I and involved only school heads, selected teachers, and WinS coordinators as respondents. The assessment focused on the school profile, WinS status based on the Three-Star Approach for SY 2022–2023, practices in implementation, and challenges encountered. The use of a quantitative correlational design and self-reported survey data confined the findings to measurable relationships within the specified variables and timeframe, without extending beyond the district or including other potential influencing factors.

Compliance with ethical standards

The study adhered to institutional academic procedures by securing permission from the Schools Division Superintendent, the Public Schools District Supervisor, and the respective school heads prior to data collection. Participation of school

heads, teachers, and WinS coordinators was voluntary, and the study employed non-experimental, survey-based methods with confidentiality maintained throughout.

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Conflict of interest statement

The author declares no financial, personal, or professional conflicts of interest related to this study.

Statement of ethical approval

The study utilized non-invasive, survey-based procedures and did not involve experimental interventions; formal ethics committee approval was not sought as it was not indicated in the study.

Statement of informed consent

Informed consent was obtained from participants prior to data collection. Participation was voluntary, and no personally identifiable information was disclosed in the conduct and reporting of the study.

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