Scholars Journal of Arts, Humanities and Social Sciences OPEN ACCESS
Abbreviated Key Title: Sch J Arts Humanit Soc Sci
ISSN 2347-9493 (Print) | ISSN 2347-5374 (Online)
Journal homepage: https://saspublishers.com

The Implementation of Water, Sanitation, and Hygiene (Wash) in Schools of Zone 1 Division of Zambales

Christensaint E. Culang[1], Esmen M. Cabal[1], Marie Fe D. de Guzman[1*]

[1]Bamban Elementary School, Masinloc, Zambales, Philippines
[2,3]Graduate School, President Ramon Magsaysay State University, Iba, Zambales, Philippines

DOI: 10.36347/sjahss.2021.v09i06.007 | **Received:** 06.05.2021 | **Accepted:** 12.06.2021 | **Published:** 20.06.2021

***Corresponding author:** Marie Fe D. de Guzman

Abstract **Original Research Article**

The objective of UNICEF in the area of water, sanitation and hygiene (WASH) is to contribute to the realization of children's rights to survival and development; increase equitable and sustainable access to, and use of safe water and basic sanitation services and promote improved personal hygiene. This study was conducted by the researchers to determine how the school management implements the Water, Sanitation, and Hygiene (WASH) In Schools Program in Zone 1 Division of Zambales, Philippines. The study also determined the challenges of the schools in the implement the WASH Program. The descriptive research design was utilized that helped determine the data gathering tool and the statistical tools to interpret and analyze the data collected from 672 respondents (school coordinators, parents and pupils). The instrument used to gather data is the questionnaire based on the instrument used by DepEd schools to evaluate the implementation of the program and how do schools address the challenges. The findings in the study revealed that the elementary schools in Zone 1 of the Division of Zambales are mostly small schools with an average enrolment of more than 300 pupils, with 13 teachers and 13 classrooms that are located along the highway. The parents, pupils and teacher- coordinators perceived that the Water, Sanitation, and Hygiene (WASH) program was implemented in their respective schools however there were seldom challenges they encountered so that the school coordinator perceived that they often practice mitigating strategies to implement the program. The study further revealed that there was low negative relationship between the implementation of WASH and challenges in its implementation as perceived by coordinator-respondents while a high positive correlation between the implementation of WASH and challenges in its implementation existed as perceived by the students. There was no significant relationship between the implementation of WASH and addressing challenges in its implementation.

Keywords: Water, Sanitation, Hygiene, Implementation, challenges, Public Schools Division of Zambales.

Copyright © 2021 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

Good student performance in schools depends on many factors. One critical but often overlooked consideration is meeting children's basic physical needs, including access to adequate safe drinking water and clean, accessible, child-friendly toilets with functioning hand washing facilities. When such facilities are inadequate or absent, children are more susceptible to illness and their learning capacity is compromised [1].

Based on the study conducted by the United Nations Children's Fund [1] two out of five people in the world do not have a hand washing facility with soap and water on premises. Almost half of the schools in the world do not have hand washing facilities with soap and water available to students. Frequent and proper hand hygiene is one of the most important measures that can be used to prevent infection especially with the COVID-19 virus. World Health Organization [2] also indicated that only 14 countries had data on basic hygiene in health care facilities, including at points of care and toilets, 55 countries had data on functional hand hygiene facilities that is, with either water and soap or alcohol-based rub at points of care in health.

Almost half of all schools worldwide, particularly in low- and middle-income countries, lack these essential facilities that many may take for granted. Schools where open defecation is practiced, or where lack of water and soap hinders proper hygiene behavior, are negatively impacting on health and the ability of

children to learn and thrive. Girls are particularly affected, as inadequate protection and lack of privacy in toilets often cause them to drop out of school at the age when they start menstruation, or to be absent repeatedly during their periods [3]. People know how closely adequate water, sanitation and hygiene (WASH), good health and education are connected and that investments in WASH are ultimately also benefitting the learning performance of children [4].

Across the world the WASH in School (WinS) strategy is widely recognized for its significant contributions towards the achievement of the Sustainable Development Goals (SDG), especially targets on water and sanitation, education, health and well-being, and gender equality. One notable strategy of achieving the SGD related to safe water supply and sanitation by 2030 is to provide schools with sustainable, safe water supply points, hand-washing stands and sanitation facilities [1].

Water, Sanitation and Hygiene, means the programs of community development coined by UNICEF for combating community related disease situation beginning from water, sanitation and hygiene related problems and how these contribute to community related diseases like diarrhea, typhoid fever, cholera, river blindness, guinea worm among others. UNICEF's [1] overall objective in the water and sanitation sector is to promote the survival, protection and development of children, and to promote behavioral changes essential to realizing the full benefits of water and sanitation services. The major objectives of United Nations [5] WASH Program include the contribute to the realization of children's rights to survival and development through promotion motion of the sector and support to national programs that increase equitable and sustainable access to, and use of safe water and basic sanitation services and promote improved personal hygiene [6].

DepEd Order No. 10, s. 2016- In the Philippines, some 24 million Filipino lacks improved sanitation even as the Department of Health (DOH) has made significant strides in this regard over the pass decades. Poor sanitation practices among the 20 million poorest Filipino have been linked directly to poverty, thus bringing to the fore the vital role of the government in breaking the cycle of poverty and ensuring the access to improved drinking water and sanitation. The lack of access to safe and clean water and poor sanitation and hygiene practices among the nation's poorest families have led to an estimated 43.7 percent and 44.7 percent of pre-school age and school-age Filipino children, respectively, having soil-transmitted infections. Hence this study was be conducted by the researcher to determine how the school management implements the Water, Sanitation, And Hygiene (WASH) In Schools Program in Zone 1 Division of Zambales.

STATEMENT OF THE PROBLEM

This study focused on determining the 'Implementation Of Water, Sanitation, and Hygiene (WASH) In Schools of Zone 1, Division Of Zambales'

Specifically, it will provide answers to the following questions:

1. What is the profile of the school in Zone 1 Division of Zambales in terms of Number of Enrollees, Number of Teachers, Number of Classrooms, and Location?
2. How do the school health coordinators, parent and intermediate pupil respondents described the implementation of Water, Sanitation, And Hygiene (WASH) in Schools in terms of Water Access, Facilities, Sanitation, Hygiene, and Health Education?
3. What are the challenges in the implementation of WASH in Schools as perceived by the respondents in aspects Water Access, Facilities, Sanitation, Hygiene, and Health Education?
4. How do schools address the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) as perceived by the School Health Coordinators?
5. Is there a significant relationship between the implementation of Water, Sanitation, and Hygiene (WASH) and the challenges in its implementation?
6. Is there a significant relationship between the implementation of Water, Sanitation, and Hygiene (WASH) and how they address challenges in its implementation?

METHODOLOGY

Descriptive research is the design of the present study. According to Peterson [7] it is the goal of descriptive research is to describe a phenomenon and its characteristics. This research is more concerned with what rather than how or why something has happened. As cited by Alberto [8], descriptive method is also known as statistical research, it describes data and characteristics about the population or phenomenon being studied. A questionnaire checklist is used to gather the needed data on the The Implementation of Water, Sanitation, and Hygiene (Wash) in Schools of Zone 1 (Sta Cruz, Candelaria and Masinloc Districts) Department of Education, Division of Zambales, Philippines. This is the instrument used by the researcher to evaluate the gathered data from the respondents. A total of 62 public elementary schools, 310 parents and 310 pupils were the respondents of the study.

The survey questionnaire is the main instruments used to gather data. This questionnaire was anchored from WASH in School Monitoring System. Part 1- is the profile of the school respondents. Part II consists of the respondent's Implementation of Water, Sanitation, and Hygiene in School based on the different criteria Water Access, Facilities, Sanitation,

Hygiene and Health Education. Part III consists of challenges encountered by the school in the Implementation of Water, Sanitation, and Hygiene (WASH) in Schools. Part IV is how the school manages to address and its intervention for the challenges encountered in the Implementation of Water, Sanitation, and Hygiene (WASH) in Schools.

The researchers asked the permission and endorsement from the Schools Division of Zambales to request for a study on The Implementation of Water, Sanitation, and Hygiene (wash) in Schools of Zone 1 Division of Zambales. The school health coordinator, parent and pupil respondents are requested to indicate true and just facts, numbers and challenges they experienced regarding the study. The researchers assured the respondents that all information will be treated with utmost confidentiality. The respondents who preferred to conceal their identity on the questionnaire are considered and the same respect and honor are regarded to them. The Statistical Package for Social Sciences (SPSS) computer software and MS Excel were used for the computations and interpretations of data. The statistical tools in the analysis and interpretation of data and hypotheses testing include the frequency distribution, means, Analysis of Variance (ANOVA) and Correlation Analysis – Pearson.

RESULTS

1. Profile of Schools in Zone I Division of Zambales

Table-1: Frequency and Percentage Distribution on Schools' Profile Variables

Profile Variables		Frequency (f)	Percentage (%)
No. of Enrollees **Mean = 339.21 or 339**	1001 & above	3	4.80
	901-1000	2	3.20
	801-900	0	0.00
	701-800	1	1.60
	601-700	3	4.80
	501-600	1	1.60
	401-500	7	11.30
	301-400	10	16.10
	201-300	13	21.00
	101-200	17	27.40
	1-100	5	8.10
	Total	**62**	**100.00**
No. of Teachers **Mean = 12.76 or 13**	51 & above	1	1.60
	41-50	0	0.00
	31-40	4	6.50
	21-30	3	4.80
	11-20	22	35.50
	1-10	32	51.60
	Total	**62**	**100.00**
No. of Classrooms **Mean = 13.32 or 13**	21 & above	13	21.00
	16-20	5	8.10
	11-15	20	32.30
	6-10	21	33.90
	1-5	3	4.80
	Total	**62**	**100.00**
Location	Farm Land	18	29.00
	Along the highway	22	35.50
	High Lands	10	16.10
	Near a Sea	6	9.70
	Island	2	3.20
	Near a River	4	6.50
	Total	**62**	**100.00**

Number of Enrolees. The computed mean of number of enrolees was 339.21 or 339. Reference to DepEd Memorandum No. 43, s. 2017, the findings imply that most schools in Zone I Division of Zambales are categorized as small schools based on their total number of enrolees. Tthere was no definite pattern in the percent change in the number of enrolment among DepEd schools. Some districts experienced large percent decreases, while others had large percent increases. Even the nationwide percentages were mixed and did not show patterns over either five-year period.

Number of Teachers. The computed mean of number of teachers was 12.76 or 13. The findings could be ascribed to the fact that the small number of teachers is just enough to cater small number of enrolees, most of whom are recruited from within the local community. According to Llego [6] that the Department of Education (DepEd) is now faced with a giant task to move and congregate teachers in the midst of the pandemic. With long working hours and larger class sizes, teachers are unlikely to have the time, energy and opportunity for professional development, and preparing modules l especially when the curriculum is changing so often [8]. Teachers are charged with providing a foundation for life in the complex, diverse and uncertain economic and social environment of the current times. They are faced with the different impact of new technologies, new economies and a challenging world [9].

Number of Classrooms. The computed mean of number of classrooms was 13.32 or 13. Llego [6] argued that one of the most deplorable consequences of the government policy of prioritizing debt payments is the reduction in public spending on education. Because of the so-called debt burden, which takes up around 30% of the national budget annually for the past two decades, our public schools have been receiving a declining share in government spending. This has led to a worsening shortage of teachers and classrooms. The proliferation of grossly oversized classes is one of the main causes of the marked decline in the quality of education provided by our public schools.

Location. Majority of the schools in Zone I Division of Zambales with 22 or 35.50% are along the highway; 18 or 29.00% are located in farm land; 10 or 16.10% are located in mountainous terrain/high lands; 6 or 9.70% are located near a sea; 4 or 6.50% are located near a river; and 2 or 3.20% are located in island. The findings imply that most schools in Zone I Division of Zambales are located along the highway and cater mainly from lower to middle income family groups. Consequently, there are some entrants to Grade I who have no exposure to pre-school education and therefore manifest significant adjustment and learning gaps. Reference to 2010 Educational Facilities Manual that the location of the school affects its development of operation. In determining the location of the school site, accessibility and suitable surrounding environment are important considerations. Identification of specific hazards that may affect the site is deemed necessary based on various geological and hydro meteorogical hazard maps prepared by national government agencies concerned for each site. Proper detailed and thorough hazards assessment must be undertaken prior to any development.

Implementation of Water, Sanitation, And Hygiene (WASH) in Schools as perceived by Three Groups of respondents

Table-2: Implementation of Water, Sanitation, and Hygiene (WASH) in Schools as Perceived by Three Groups of Respondents

ASPECTS		Coordinator			Parent			Pupil		
		OWM	QI	Rank	OWM	QI	Rank	OWM	QI	Rank
1	Water Access	3.30	VI	5	2.94	I	1	2.47	MI	1
2	Facilities	3.31	VI	4	2.66	I	3	2.23	MI	2
3	Sanitation	3.55	VI	1	2.88	I	2	2.02	MI	3
4	Hygiene	3.44	VI	2	1.94	MI	4	1.98	MI	4
5	Health Education	3.37	VI	3	1.28	NI	5	1.42	NI	5
Mean		**3.39**	**VI**		**2.34**	**MI**		**2.02**	**MI**	
Grand Mean = 2.58 (Implemented)										

The coordinator-respondents perceived the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Very Much Involved" in terms of: Sanitation (OWM = 3.55, rank 1); Hygiene (OWM = 3.44, rank 2); Health Education (OWM = 3.37, rank 3); Facilities (OWM = 3.31, rank 4); and Water Access (OWM = 3.30, rank 5). The computed mean on the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by coordinators was 3.39 interpreted as "Very Much Involved".

Furthermore, the parent-respondents perceived the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Implemented" in terms of: Water Access (OWM = 2.94, rank 1); Sanitation (2.88, rank 2); Facilities (2.66, rank 3); "Moderately Implemented" in terms of Hygiene (OWM = 1.94, rank 4); and "Not Implemented" in terms of Health Education (OWM = 1.28, rank 5). The computed mean on the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by parent-respondents was 2.34 interpreted as "Moderately Implemented".

Moreover, the pupil-respondents perceived the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Moderately Implemented" in terms of: Water Access (OWM = 2.47, rank 1); Facilities (OWM = 2.23, rank 2); Sanitation (OWM = 2.02, rank 3); Hygiene (OWM = 1.98, rank 4); and "Not Implemented" in terms of Health Education (OWM = 1.42, rank 5). The computed mean on the

implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by pupil-respondents was 2.02 interpreted as "Moderately Implemented". The computed grand mean on the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by three groups of respondents was 2.58 interpreted as "Implemented".

Water Access. Shrestha, Dahal & Marks [10] noted in her study that students and school staff reported that the amount of toilets was insufficient and that their conditions were often inadequate because they were plugged or dirty. The impact on girls is greater as toilets do not offer a clean and healthy environment for menstrual hygiene management. Several elements of the normative content of the Human Rights to Water and Sanitation (HRTWS), especially accessibility, acceptability, quality, safety and dignity, were largely not fulfilled. The study identified that, to comply with the HRTWS, it is necessary to go beyond infrastructure, as the lack of maintenance; cultural elements and student participation hinder the usage of sanitary facilities.

Facilities Recently, study findings of Naughton & Mihelcic [11] showed that most schools do provide some type of school health services and that a degree of consistency does exist in the kinds of services delivered from one school system to the next. Schools provide some type of school health services; have a dedicated health services facility, such as a separate health room or clinic. Almost all districts keep student health records on file and monitor student immunization status, and most districts also keep student medical emergency and medical information forms on file.

Sanitation School sanitation is a determinant of overall school attendance. This is true for both students and staff members, who attend school less frequently because of illness or a general distaste for attending a school that isn't cleaned properly or that isn't sanitized. A building that isn't sanitized can collect a significant amount of bacteria over time. According to WHO/UNICEF Joint Monitoring Program [12], considering the amount of people who go in and out of schools, this can be especially dangerous and can lead to sickness and illness for everyone involved. Health-related policies should include the overall sanitation of a school. The impact of school cleanliness on the health of those exposed to bacteria within schools is big. To promote hygiene within schools, it may be necessary to create things like health clubs and hosting information sessions about hygiene and regular garbage collected from school for clean environment should be observed [13].

Hygiene Timor [14] reported that washing hands with soap can be a common practice among students when washing facilities appropriate to their grade level becomes available. In reality, many of the school buildings are small needing facility renovations to implement washing hands among learners.

Health Education School is one of the most important places where children learn about hygiene, an opportunity they may not enjoy at home. Hygiene education and health behaviors fit well in existing curricula; for example, in subjects covering biology or healthy lifestyles. All teachers should be acquainted with the important messages related to WASH and skills-based education. This teaching method entails a strong focus on practice, making use of a variety of participatory and other learning methods. Children can learn by the example set by school staff, especially their teachers. Thus, school staff should act as role models and consistently demonstrate appropriate hygiene behaviours, as well as reminding children to do so. Teachers and school health staff can explicitly remind children to wash their hands at critical times (such as after using the toilet or after playing) [15].

Challenges in the Implementation of Water, Sanitation, And Hygiene (WASH) in Schools as perceived by Three Groups of respondents

Table-3: Perception on the Challenges in the Implementation of Water, Sanitation, and Hygiene (WASH) in Schools as Perceived by Three Groups of Respondents

ASPECTS		Coordinator			Parent			Pupil		
		OWM	QI	Rank	OWM	QI	Rank	OWM	QI	Rank
1	Water Access	1.90	SC	2	2.08	SC	5	2.51	ST	4
2	Facilities	1.78	SC	4	2.56	ST	3	2.39	SC	5
3	Sanitation	1.76	SC	5	2.39	SC	4	2.63	ST	2
4	Hygiene	1.80	SC	3	2.92	ST	2	2.53	ST	3
5	Health Education	1.91	SC	1	3.11	ST	1	3.10	ST	1
Mean		**1.83**	**SC**		**2.61**	**ST**		**2.63**	**ST**	
Grand Mean = 2.36 (Seldom Challenge)										

Moreover, the parent-respondents perceived the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Sometimes Challenge" in terms of: Health Education (OWM = 3.11, rank 1); Hygiene (OWM = 2.92, rank 2); Facilities (OWM = 2.56, rank 3); "Seldom Challenge" in terms of: Sanitation (OWM = 2.39, rank 4); and Water Access (OWM = 2.08, rank 5). The

computed mean on the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by parent-respondents was 2.61 interpreted as "Sometimes Challenge".

Meanwhile, the pupil-respondents perceived the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Sometimes Challenge" in terms of: Health Education (OWM = 3.10, rank 1); Sanitation (OWM = 2.63, rank 2); Hygiene (OWM = 2.53, rank 3); Water Access (OWM = 2.51, rank 4); and "Seldom Challenge" in terms of Facilities (OWM = 2.39, rank 5). The computed mean on the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by pupil-respondents was 2.63 interpreted as "Sometimes Challenge". The computed grand mean on the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by three groups of respondents was 2.36 interpreted as "Seldom Challenge".

Water Access Providing access to drinking water gives students a healthy alternative to sugar-sweetened beverages. It helps to increase students' overall water consumption, maintain hydration, and reduce energy intake if substituted for sugar-sweetened beverages. Adequate hydration also may improve cognitive function in children and adolescents. For WHO/UNICEF [16], drinking water, if fluoridated, also plays a role in preventing dental caries (cavities). Schools can use a variety of strategies to ensure that water fountains are clean and properly maintained, provide access to water fountains, dispensers, and hydration stations throughout the school, allow students to have water bottles in class or to go to the water fountain if they need to drink water [17].

Facilities Belda [18] noted that the bathroom is probably one of the most essential place in homes and in any establishments. It is a place used for urination, defecation and hygienic purposes because of this, it is very important for bathrooms to be fully functional. In Quezon City Science High School, toilet facilities are in bad condition, some bathroom stalls have broken locks and some do not have doors at all. Almost all of the toilets need to be repaired as they are always clogged to the drain. Teachers and fellow students should help maintain the cleanliness and orderliness of the comfort rooms.

Sanitation Reference to DepEd Order No. 10, S. 2016, all schools shall have adequate, clean, functional, safe, and accessible toilet facilities that meet the pupil-to-bowl ratio as stipulated in the Philippine Sanitation Code; maintain cleanliness and safety in and the immediate vicinity of school premises through school-based solid waste management, proper drainage, and the elimination of all possible breeding grounds for mosquitoes to prevent vector-borne diseases; and ensure safety in food handling and preparation [19].

Hygiene The study of Soler [20] assessed the benefit of an enhanced oral health promotion program combined with a closely supervised tooth brushing program in schools, using toothpaste on oral health and dental caries. After period of examination there were significant improvements in dental plaque scores with greater improvements seen in the intervention group (e.g., schools). For Peterson [17], optimizing oral health interventions for young children in schools may have a significant impact on caries incidence resulting in reductions of up to 34% reductions in caries for all schools included in the study and up to 41% for the most cooperative.

Health Education The schools need to dedicate themselves to proper operation and maintenance to safeguard the investments and build on them to sustain the improvement of WASH conditions. This includes putting bulletin board, classrooms toilets, hand washing facilities and canteen areas in schools. The active participation of partners and stakeholders is vital to the success of the program. With the support of all partners, DepEd is committed to expand and improve the implementation of the Program towards the realization of our goal to deliver quality, accessible, relevant, and liberating basic education for all Filipino learners to have a better start in life, and thereby contribute to a better, brighter future for this nation [21].

Addressing the Challenges in the Implementation of Water, Sanitation, And Hygiene (WASH) in Schools as perceived by Coordinator-respondents

The coordinator-respondents perceived addressing the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as "Often Practiced" in terms of Health Education (OWM = 3.09, rank 1); Hygiene (OWM = 2.78, rank 2); Sanitation (OWM = 2.71, rank 3); "Sometimes Practiced" in terms of Water Access (OWM = 2.45, rank 4); and Facilities (OWM = 1.92, rank 5). The computed grand mean in addressing the challenges in the implementation of Water, Sanitation, and Hygiene (WASH) in Schools as perceived by coordinator-respondents was 2.59 interpreted as "Often Practiced".

Table-4: Perception on addressing the Challenges in the Implementation of Water, Sanitation, And Hygiene (WASH) in Schools as perceived by Coordinator-respondents

ASPECTS		Overall Weighted MEan	Qualitative/ Interpretation	Rank
1	Water Access	2.45	Sometimes Practiced	4
2	Facilities	1.92	Sometimes Practiced	5
3	Sanitation	2.71	Often Practiced	3
4	Hygiene	2.78	Often Practiced	2
5	Health Education	3.09	Often Practiced	1
Grand Mean		**2.59**	Often Practiced	

Water Access. Schools with safe drinking water improved sanitation facilities and hygiene education that encourages the development of healthy behaviours for life. This strategic approach is known as Water, Sanitation and Hygiene Education (WASH) in Schools. Poor sanitation, water scarcity, inferior water quality and inappropriate hygiene behaviour are disastrous for infants and young children and are a major cause of mortality for children under five. According to Rehfuss [22], these conditions are also detrimental to the health of school-aged children, who spend long hours in schools. The physical environment and cleanliness of a school facility can significantly affect the health and well-being of children.

Facilities Toilets and sanitation systems cater for one of the most basic human functions. Inadequate facilities, poor access and poor knowledge of urinary or bowel health can have wide ranging implications for physical, emotional and psychological health. According to SPLASH School Outcome Study in the year 2016, while inadequate access to clean, pleasant toilets will affect all children badly, it can have a particularly negative impact for children with disabilities and/or additional support needs, for children with bladder or bowel conditions, or for children experiencing bullying. Properly regarded and appropriately managed, they can become a significant physical space within a school and provide a vital and valuable means of support for children in managing their own health, particularly as part of a whole-school ethos promoting health and wellbeing through the curriculum and upholding children's rights.

Sanitation. General waste is an unwanted refuse material or substance. It may consist of materials from community or household activities (municipal, domestic or camp waste) or from school activities. Incineration is the most obvious solution for total destruction of school waste, avoiding all the direct and indirect risks associated with other disposal methods. Incineration perfectly fits into a trend of treating waste in a safe way, and if possible, at the same place where it was generated to avoid cross-contamination risk and to keep waste treatment costs at an acceptable level of the students, teachers and other school's stakeholders [18].

Hygiene. Relative to the study conducted by Pfadenhauer [23] who claimed that an inadequate water, sanitation and hygiene (WASH) represent an important health burden in the Philippines. The non-governmental organisation Defecation and anal cleansing behaviours were constrained by the physical environment, particularly the lack of clean, safe, comfortable and private facilities. Individual determinants of behavior were influenced by habit and motivations such as disgust, with some evidence of planned behaviour. Where available, water was the preferred material for anal cleansing.

Health Education. Finer [24] concluded in her study that as young people face important decisions about relationships, sexuality, and sexual behavior, the decisions they make can impact their health and well-being for the rest of their lives. Thus, sex-specific aspects of hygiene should clearly be elaborated among young people in order for to lead them into healthy lives, and society has the responsibility to prepare youth by providing them with comprehensive sexual health education that gives them the tools they need to make healthy decisions. But it is not enough for programs to include discussions of abstinence and contraception to help young people avoid unintended pregnancy or disease.

Test of Rrelationship between the Implementation of Water, Sanitation, and hygiene (WASH) and the Challenges in its Implementation

Coordinator-respondents

Table-5: Pearson r to determine Relationship between the Implementation of Water, Sanitation, and Hygiene (WASH) and the Challenges in its Implementation by Coordinator-Respondents

Sources of Correlations		Implementation	Challenges	Decision/ Interpretation
Implementation	Pearson Correlation	1	-0.268*	**Low Negative Relationship Reject Ho**
	Sig. (2-tailed)		0.035	
	N	62	62	
Challenges	Pearson Correlation	-.0268*	1	
	Sig. (2-tailed)	0.035		
	N	62	62	
*. Correlation is significant at the 0.05 level (2-tailed).				

The computed P-value of 0.035 is less than (<) 0.05 level of Significance, therefore the Null Hypothesis is Rejected, hence there is a significant relationship between the implementation of WASH and challenges in its implementation as perceived by coordinator-respondents. This implies that as the level of implementation of WASH increases, the challenges and problems in its implementation decreases. Inadequate hygiene practices can lead to high levels of problems and interventions focusing on critical control points that reduce this contamination [2]. While we need to better understand how to change behavior sustainably through such interventions, and to assess their impacts on child health, there is growing consensus on the importance of integrating proper WASH components and programs [25].

Parent-Respondents

Table-7: Pearson r to determine Relationship between the Implementation of Water, Sanitation, and Hygiene (WASH) and the Challenges in its Implementation by Parent-respondents

Sources of Correlations		Implementation	Challenges	Decision/ Interpretation
Implementation	Pearson Correlation	1	-0.101	**Accept Ho Not Significant**
	Sig. (2-tailed)		0.077	
	N	310	310	
Challenges	Pearson Correlation	-0.101	1	
	Sig. (2-tailed)	0.077		
	N	310	310	

The computed P-value of 0.077 is greater than (>) 0.05 Level of Significance, therefore the Null Hypothesis is Accepted, hence there is no significant relationship between the implementation of Water, Sanitation, and Hygiene (WASH) and challenges in its implementation as perceived by parent-respondents.Despite discussion in recent years around the best approach for estimating the proportion of health issues attributable to poor WASH, there is strong consensus that the majority of this health issues burden is due to poor WASH [25].

Pupil-Respondents

Table-6: Pearson r to determine Relationship between the Implementation of Water, Sanitation, and Hygiene (WASH) and the Challenges in its Implementation by Pupil-respondents

Sources of Correlations		Implementation	Challenges	Decision/ Interpretation
Implementation	Pearson Correlation	1	0.504**	**High Positive Relationship Reject Ho**
	Sig. (2-tailed)		0.000	
	N	310	310	
Challenges	Pearson Correlation	0.504**	1	
	Sig. (2-tailed)	0.000		
	N	310	310	
*. Correlation is significant at the 0.01 level (2-tailed).				

The computed P-value of 0.000 is less than (<) 0.01 level of significance, therefore the Null Hypothesis is rejected hence there is a significant relationship between the implementation of Water, Sanitation, and Hygiene (WASH) and challenges in its implementation as perceived by pupil-respondents. This signifies that high level of implementation of WASH will mean greater challenges in its implementation.While there is an increasing investments to address health issues and WASH implementation, greater challenges has also been reported to facilitate measures and campaigns, thus there is strong consensus that as the

implementation continue to increase, providing needed support to sustain its implementation demands greater challenge in health education [10]. Health promotion program poses numerous challenges such as appropriate communication methods, motivation, cultural and social issues, resources and sustainability, and barriers to participation [23].

Test of Relationship between the Implementation of Water, Sanitation, and Hygiene (WASH) and Addressing Challenges in its Implementation

Table-8: Pearson r to determine Relationship between the Implementation of Water, Sanitation, And Hygiene (WASH) and Addressing Challenges in its Implementation

Sources of Correlations		Implementation	Addressing Challenges	Decision/ Interpretation
Implementation	Pearson Correlation	1	.208	**Accept Ho Not Significant**
	Sig. (2-tailed)		0.105	
	N	62	62	
Addressing Challenges	Pearson Correlation	.208	1	
	Sig. (2-tailed)	0.105		
	N	62	62	

The computed P-value of 0.105 is greater than (>) 0.05 Level of Significance, therefore the Null Hypothesis is Accepted, hence there is no significant relationship between the implementation of Water, Sanitation, And Hygiene (WASH) and addressing challenges in its implementation. Low quality of drinking water, sanitation and hygiene leads to poor health, poor nutritional outcomes for children, low labor force productivity, and gender inequality due to the drudgery of water collection, the indignity and insecurity of open defecation, and barriers to education and employment when schools and workplaces do not have safe, private toilets. Lack of drinking water, sanitation and hygiene threatens human dignity. Health, gender equality, education and poverty, are not achievable without improvements in WASH [26]. Despite its great need and potentially enormous benefits, WASH faces major challenges in addressing its implementation. Robust planning should be supported by reliable evidence, data and analysis to inform decision-making and to track progress. Greater mutual accountability is needed, that is between the government and their citizens in general [5].

RECOMMENDATIONS

Based on the conclusions, the researchers offered the following recommendations:

1. Schools are encouraged to sustain program implementation for pupils to practice drinking the right amount of water for hand washing facilities and hand washing programs inside the school; and ensure availability of comfort rooms with functional toilet seats
2. DepEd may continue to include WASH in School as a part of In-Service Training (INSET).
3. Schools are encouraged to collaborate with LGU or Water District to conduct test on water supply safety for drinking, implement availability of water for flushing toilets in all comfort rooms; accessible school clinic with complete equipment; and regular garbage collected from school for clean environment and consider developing strategies to promote the practice of solid waste segregation in school plant and provide smaller hand washing facilities available for shorter pupils; educate and give awareness to children about the sex-specific aspects of hygiene, and provide equity of access to such facilities to children with special needs.
4. Schools has to consider provision of access to safe free drinking water; water supply to be tested for drinking; exclusive female toilets with trash bins, door locks and trash bins for classrooms, canteen, offices, play area, garden, hallways and stage.
5. The school administrations may consider installation of facilities that will promote hand and foot sanitation at the school entrance especially during this time of pandemic.

CONCLUSIONS

The following conclusions were derived based on the findings

1. Majority of schools in Zone I Division of Zambales are categorized as small schools with 339 student-enrollees, 13 teachers, 13 classrooms, and are located along the highway.
2. The three groups of respondents perceived that policies and guidelines on Water, Sanitation, and Hygiene (WASH) in Schools are “Implemented”.
3. The three groups of respondents perceived that they see there are seldom challenges in the implementation of WASH in Schools.
4. The coordinator-respondents perceived that they “Often Practiced” strategies towards addressing the challenges in the implementation of Water, Sanitation, and Hygiene WASH in Schools.
5. There was low negative relationship between the implementation of WASH and challenges in its implementation as perceived by coordinator-respondents while there was perceived high positive correlation between the implementation of WASH and challenges in its implementation by the pupil-respondents.

6. There was no significant relationship between the implementation of WASH and addressing challenges in its implementation.

REFERENCES

1. United Nations Children's Fund. (2020). The Importance of Sanitation for All, Especially Children. April 13, 2016.
2. World Health Organization. (2017). Safely managed drinking water- thematic report on drinking water 2017.
3. Dajaan, D., Addo, H., Ojo, L., Amegah, K., Loveland, F., Bechala, B., Benjamin, B. (2018). Hand washing knowledge and practices among public primary schools in the Kintampo Municipality of Ghana Educational Facilities Manual. http://depedoroquieta/Educational%20Facilites%20Manual.pdf
4. Asilo, M., Berberabe, J., & De Ramos, A. (2017). Hand Hygiene Knowledge, Practice and Facilities Utilization of Pupils in Batangas City, Philippines: Basis for Proposed Hand Hygiene Activities
5. United Nations. (2016). Addressing the Drinking Water, Sanitation and Hygiene (WASH) Challenge. Retrieved:https://sustainabledevelopment.un.org/content/documents/17001pdf
6. Llego, M. (2020). DepEd Basic Education Statistics for School Year 2019-2020. Teacherph.com
7. Mills, J. (2016). The Impact of Water, Sanitation and Hygiene on key health and social outcomes. Retrieved: https://www.unicef.org/The_Impact_of_WASH_on_Key_Social_and_Health_Outcomespdf
8. Alberto, J. R. (2011). Teacher Statistics for the Philippines. Retrieved: https://www.philippinesbasiceducation.us/2013/05/teacher-statistics-for-philippines.html
9. Butterham, S. (2010). The Role of the Teacher in the Pedagogy of the 21st Century. Retrieved: https://ejournals.ph/article.php?id=1614.Consulting Picus Odden & Associates
10. Shrestha, A., Dahal, D., & Marks, S. (2018) Association of nutrition, water, sanitation and hygiene practices with children's nutritional status, intestinal parasitic infections and diarrhoea in rural Nepal: a cross-sectional study.
11. Naughton, C., & Mihelcic, J. (2017). Introduction to the Importance of Sanitation Published on: September 20, 2017
12. WHO/UNICEF Joint Monitoring Program. (2017). WASH in the 2030 Agenda: New Indicators for water, sanitation and hygiene.
13. Titan, L. (2017). The Importance of School Hygiene and Sanitation. Retrieved: https://titanchs.com.mm/blog/the-importance-of-school-hygiene-and-sanitation
14. Timor, L. (2020). A School Group Hand-Washing Facility: Helping students to change habits. https://www.unicef.org/timorleste/school-group-hand-washing-facility-helping-students-change-habits
15. Grossi, V. (2018). Water and Climate Programme, WHO European Centre for Environment and Health, WHO Regional Office for Europe, Germany; and Institute for Hygiene and Public Health, University of Bonn, WHO Collaborating Centre for Health Promoting Water Management and Risk Communication, Germany
16. Who/Unicef JMP. (2015). WHO/UNICEF Joint Monitoring Program (JMP) for Water Supply and Sanitation.
17. Peterson, P.E. (2015). School-based intervention for improving the oral health of children. Community Dental Health. BASCD
18. Belda, J. (2017). Poor Sanitation and Insufficient Equipment of Comfort rooms in Q.C.S.H.S. Change.org.com
19. Wins, R. (2018). Sanitation Fit to School. Retrieved: http://www.fitforschool.international/wp-content/ezdocs/TSA_WinS_Booklet_Sanitation_FINAL_WEB_20181105.pdf
20. Soler, B. (2015). Population and selective (high-risk) approaches to prevention in well-child care. In Child Health Supervision: Analytical Studies on the Financing, Delivery, and Cost-Effectiveness of Preventive and Health Promotion Services for Infants, Children, and Adolescents, National Center for Education in Maternal and Child Health.
21. Briones, L. (2017). Wash in Schools Guidelines. Retrieved: http://www.fitforschool.international/wp content/ezdocs/TSA_WinS_DepEd_Brochure_+_Memorandum_30-10-2017.pdf
22. Rehfuss, K. (2012). Child Friendly Schools: How children in Sri Lanka learn the importance of safe drinking water, Malteser International, Malta, 2011, accessed 28 January 2012.
23. Pfadenhauer, L. (2015). Towards Effective and Socio-Culturally Appropriate Sanitation and Hygiene Interventions in the Philippines: A Mixed Method Approach. Int J Environ Res Public Health
24. Finer, L. (2014). Disparities in rates of unintended pregnancy. Perspectives on Sexual and Reproductive Health
25. Mills, J. (2016). The Impact of Water, Sanitation and Hygiene on key health and social outcomes. Retrieved: https://www.unicef.org/wash/files/The_Impact_of_WASH_on_Key_Social_and_Health_Outcomes_Review_of_Evidence.pdf