SCHOOLS' PHYSICAL ENVIRONMENT AND PUPILS' LEARNING BEHAVIOR IN MUNAI DISTRICT AFTER SEVERE TYPHOON VINTA

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ABSTRACT

This study aimed to assess the present physical environment of the three affected school of Severe Tropical Storm Vinta and the pupils learning behaviour in terms of classroom attendance, initiative to do assignment, class recitation, cooperation in classroom activities during the school year 2018-2019. The respondents of this study were the 378 Grade 4-6 learners from Pendulonan Elementary School, Munai Central School and Lininding Elementary School. For the physical environment the general assessment of the respondents showed that they have impractical school environment both inside and outside the classroom after affected by the TS Vinta. With regards to pupils‟ learning behaviour. the results describes that the pupils do most of the time attending their classes, doing better in the initiative of making their assignments, participative and attentive in the class recitation and showed moderate level of cooperation in classroom activity. The result also reveals that school attendance and physical environment relative to inside the classroom are significantly correlated. This suggests that pupils having lower school attendance could be link to poor classroom learning environment .However, the pupils‟ learning behaviour relative to initiative to do assignment, class recitation and cooperation in class activity are not significantly associated both inside and outside the classroom environment . This result suggests that some of the learning behaviours of the pupils are not interfered by the physical environment of the school.

Key words: Schools‟ Physical Environment, Pupils behavior,

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I. Introduction and Rationale

Physical environment refers to the level of upkeep, ambient, noise, lightning, indoor quality and/ or thermal comfort of the school‟s physical building and its location. The physical environment of the school speaks to the contribution in the safe, clean and comfortable surrounding that make a positive school climate in which pupils can learn.

Providing students a healthy and inviting school environment where they are protected from physical and emotional harm is central to the mission of all schools. Safe schools are not just places with advanced security procedures; they are also places that help pupils develop pupils‟ strength that allow them to succeed even in difficult circumstances. Safe school encourage healthy behaviour that helps pupils learn about fitness, nutrition and healthy choices.

A safe school environment includes a safe and clean school facility. Researchers and educators agree that school environment affects pupils achievement. A report by National School Boards Association found that a good school environment was the critical variable differentiating between schools with high and low rates of delinquency behavioural disturbances, attendance and academic attainment(Shamaki 2015)

However, on December 22, 2017, severe tropical storm named Vinta (with international name: Tembin) traversed Mindanao and crossed provinces including Lanao del Norte. STS Vinta has dumped a massive amount of rainfall that triggered wide spread of flooding, flash floods, and mudslide in the province.

The flash flood and mudslide caused heavy damage to schools including three schools in Munai District- Pendulonan Elementary School, Lininding Elementary School and Munai Central Elementary School.

School located near rivers and creeks like the three schools stated above were damage by the flash floods that also swept huge boulders and logs. Extent damage include collapsed walls, wave cave in below the classroom flooring and entire school building and classroom were wiped out and/ or submerged in mud. General damaged to schools include the following:

- School records, teaching kits, computers, blackboards and chairs were swept away by flash floods.
- Classroom and school grounds are still covered by thick mud
- Debris of huge boulders and logs are still scattered in school grounds and cleaning operation needs heavy equipment
- Some classrooms are still being used as evacuation centres. (https://www.savethechildren.org.ph/about-us/stories-fromour-programs/stories/case-studies/lost-my-school-inmarawi,-and-again-due-to-vinta)

The researchers has observed with dismay that the aftermath of STS Vinta causes physical school environment in the study area not interesting and conducive for teaching and learning, instructional facilities are inadequate, infrastructures facilities are in dilapidated

conditions, and lack of other essential facilities needed in teaching and learning process. It is on these premises that the researchers are motivated to appraise the impact of the present school physical environment on the learning behaviour of the pupils of the three affected school during school year 2018-2019.

The result of the study may also provide educational planners and policy makers baseline information needed in their analysis of educational facility development needed by the three schools, for school administrator, this may serve as a guide in deciding priorities in designing Annual Improvement Plan and or Enhanced School Improvement Plan, and for teachers, this study will be helpful to them to understand the effect of physical environment in learning behaviour of their pupils thus, helping them adjust to the immediate needs of pupils.

II. Literature Review

The future of our communities depends on a generation, not only skilled in academics, but also excited about belonging to an educated community. That community will arise only if schools engage and connect with today's children. Effective schools create an environment that increases academic, social and emotional success—an environment of strong school connectedness (Blum,

2009).

Education plays a vital role to a productive and fruitful good life. According to Results Educational Fund (2009) Education is a basic human right and a significant factor in the development of children, communities, and countries. Opening classroom doors to all children,

especially girls, will help break the intergenerational chains of poverty because education is intrinsically linked to all development goals, such as supporting gender empowerment, improving child health and maternal health, reducing hunger, fighting the spread of HIV and diseases of poverty, spurring economic growth, and building peace. On the other hand, quality education includes learners who are healthy, well-nourished and ready to participate and learn, and supported in learning by their families and communities and of course environments that are healthy, safe, protective and gender-sensitive, and provide adequate resources and facilities (UNICEF, 2000).

Education is also considered as the basic infrastructure for future development and prosperity of any nation in every field of life. Moreover, in the modern era, role of education has been changed. In the past, education was considered as a tool for human development but now it is used as a tool of development in every field such as political, economic, social and human resources (Abbas, 2007). Therefore, requirements of education provide a direction for teaching learning process at all levels particularly at elementary level. Effectiveness of teaching learning process depends upon multiple factors such as teachers‟ competencies, students‟ intake, curriculum standards, school environment and classroom environment as cited by Mahmood and Gondal (2017). He also mentioned that in a study of Heshong (2003), teachers desire more space, good looking location, quiet and peaceful environment.

Mahmood and Gondal (2017) state also that school climate

promotes effective teaching and multiple activities of teachers which then creates better understanding and achievement level of students. Through that we can come up with the conclusion that positive school climate yields improvements in educational and psychological outcome while on the other side, a bad school climate results in the prevention of effective teaching learning process. School environment/climate also includes mutual trust, obligation for students‟ welfare. These aspects of school climate also result on better students‟ academic achievement.

In addition, based on the study of Mick Zais (2011) as cited by Lawrence (2012), School Environment means the extent to which school settings promote student safety and student health, which may include topics such as the physical plant, the academic environment, available physical and mental health supports and services, and the fairness and adequacy of disciplinary procedures, as supported by relevant research and an assessment of validity. Nwangwu (1990) as cited by Oguche (2015) also gave the characteristics of school environment which include school buildings, classrooms, furniture‟s, playgrounds, sporting facilities, laboratories, libraries and equipments which aid the teachers in effective delivery of lesson.

Related Studies

The review of related studies which have a direct bearing on the present study serves as the background information that guided the researchers in developing and organizing the present study.

In the recent study of Mahmood and Gondal (2017) which utilized

two types of instruments such as rating scale for teachers and a Checklist for head teachers. This is used to collect data information from a sample of teachers and head teachers that was selected from eight districts of Punjab province using multi-stage cluster random sampling techniques. The sample was 36 head teachers and 72 science teachers that were selected from sample selected schools. This study was conducted to find out the impact of school environment on the academic achievement of students in both Urdu (National) and English (2nd language) medium classes in public schools. And, the findings of this study indicates that school environment has positive impact on students‟ achievement and this effect is more in English medium schools as compared to Urdu medium schools. The study also recommends that learning supportive elements (physical, academic and school environment) must be promoted in the school for better efficiency of teaching learning process.

Lawrence (2012) study on School Environment and Academic Achievement of Standard IX Students which examined the relationship between School Environment and Academic Achievement of standard IX students using a sample consisting of 400 students studying IX standard. The researcher used a stratified random sampling technique for selecting the sample. This study utilized a questionnaire developed by the researcher itself which is called school environment scale, for the collection of the data. It was found out that there is a very low positive relationship between the school environment and academic achievement. And, to make the achievement to a high level, efforts must

be taken to strengthen the school environment. So that, the environment boosts up not only the achievement of students but their social ability, healthy status and moral values also.

The study about Influence of School Environment on Academic Achievement of Students In Secondary Schools In Zone “A” Senatorial District of Benue State, Nigeria has indicated that school climate, discipline and physical facilities has significant influence on academic achievement of secondary school students in Zone „A‟ Senatorial District of Benue State. Based on the findings of this study, the researchers recommended among others that appropriate school authorities should enable to provide a conducive school environment that has good climate for effective teaching and learning. Such environment should be safe, students treated fairly by teachers and happy to be in school as well as feel they are a part of the school.

III. Research Questions

The following research questions guided the study:

1. What is the present physical environment of the three affected school of STS Vinta?
2. What are the pupils learning behaviour in terms of classroom attendance, initiative to do assignment, class recitation, cooperation in classroom activities?
3. Is there any significant relationship between School physical environment and learning behaviour of pupils?

4. What action plan can be formulated based on the result of the study?

IV. Scope and Limitation

This particular study determined the present physical environment of these three affected schools and its relation to the learning behaviour of pupils in terms of school attendance, initiative to do assignment, class recitation, and cooperation in classroom activities.

The respondents of the study were the grades four, five and six pupils of the three schools.

V. Research Methodology

a. Sampling

The sample size of 75% of the entire population of grade IV, V and VI of Pendulonan Elementary School, Munai Central School, and Lininding Elementary School in School Year 2018-2019 was chosen. According to Ashby, et.al (2011) a sample is worthless unless it reflect the entire population upon which generation is made. For that reason, the researchers sampled the pupils regardless of their sex or age to allow easy analysis. The researchers used a random selection technique which aims to get a good representation of the population.

b. Data Collection

Prior to data gathering, the researchers secured a letter of permission from the authors of the instrument that was used in the study.

Upon approval, the researchers made some modifications in the instrument to suit on the actual setting of the research locale.

The instrument for the data collection that guided the study was a questionnaire adapted from Shamaki (2015) and Learning Environmental Checklist (LEC) of the National Behavior Support Service. This was used to determine the physical environment of the school and a questionnaire adapted from Emong (2000) was used to determine the pupils learning behaviour. The researchers made some modification in the questionnaire used for determining physical environment of the school. The Educational Facilities Manual (2010) was used as a reference to guide the researchers on deciding what questions suits on the standard of the Department of Education with regards to educational facilities.

The questionnaire for determining physical environment consists of 25 items. While the questionnaire for determining the learning behaviour was composed of three components. Classroom attendance, 8 items.

Initiative to do assignment, 8 items, Class reciatation, 7 items, and Cooperation in classroom activities, 7 items. No modification was done since, all statement suited on actual sitting of the locale of the study.

To determine the physical environment of the schools, the following continuum and score was used.

Code of Competency		Interpretation
1	Disagree	Very significant need for action
2	Mostly Agree	Room for improvement/ some action needed
3	Strongly Agree	No real room for improvement

To determine the learning behaviour of the pupils, the following continuum and score was used.

Code of Competency	Interpretation
1	Always
2	Frequency
3	Occasionally
4	Rarely
5	Never

A. Ethical Issues

The researchers observed the highest ethical standard and uphold ethical principle in evaluating and implementing the research proposal. It ensured the confidentiality of the data given by the respondents.

The principle of free, prior and informed consent and recognition and protection of communal intellectual and cultural property right was also be meaningfully considered and adhered throughout the research process.

VI. DISCUSSION OF RESULTS AND RECOMMENDATION

Problem 1: What is the present physical environment of the three affected school of STS Vinta?

Table 1
Present Physical Environment in terms of Inside the Classroom

Inside the Classroom	Mean	Description
I1. My classroom looks and feels like a good work environment	1.23±0.58	*Disagree*
I2.Furniture and equipment are arranged to best effect for teaching and learning	1.32±0.61	*Disagree*
I3. The chalkboard is easily seen by all.	1.28±0.56	*Disagree*
I4. External noise levels do not interfere with learning	1.26±0.55	*Disagree*
I5. There is a sufficient space and ease of movement for all.	1.18±0.46	*Disagree*
I6. I have adequate personal work space.	1.39±0.72	*Disagree*
I7. I can perform better if my classroom is renovated	1.10±0.30	*Disagree*
I8. The classroom have electricity	1.05±0.22	*Disagree*
I9. Poor ventilation makes the lesson boring	2.84±0.47	*Strongly Agree*
I10. I can perform better in moderate classroom temperature	2.05±0.50	*Almost Agree*
I11. Adequate air ventilation might improve my performance	2.76±0.50	*Strongly Agree*
I12. At times, I like to stay outside because classroom/ tent is very hot.	2.89±0.35	*Strongly Agree*
I13. The classroom/tent has enough seats and desk for every pupil	1.96±0.51	*Almost Agree*
I14.Good sitting arrangement makes learning interesting	2.78±0.51	*Strongly Agree*
I15. No pupils obstruct another‟s view due to seats construct.	1.33±0.63	*Disagree*
16. I cannot do well because our class is overcrowded.	2.69±0.57	*Strongly Agree*
Average	***1.82±0.12***	***Almost Agree***

Note: 1.00-1.66 Disagree 2.34-3.00 Strongly Agree
1.67-2.33 Almost Agree

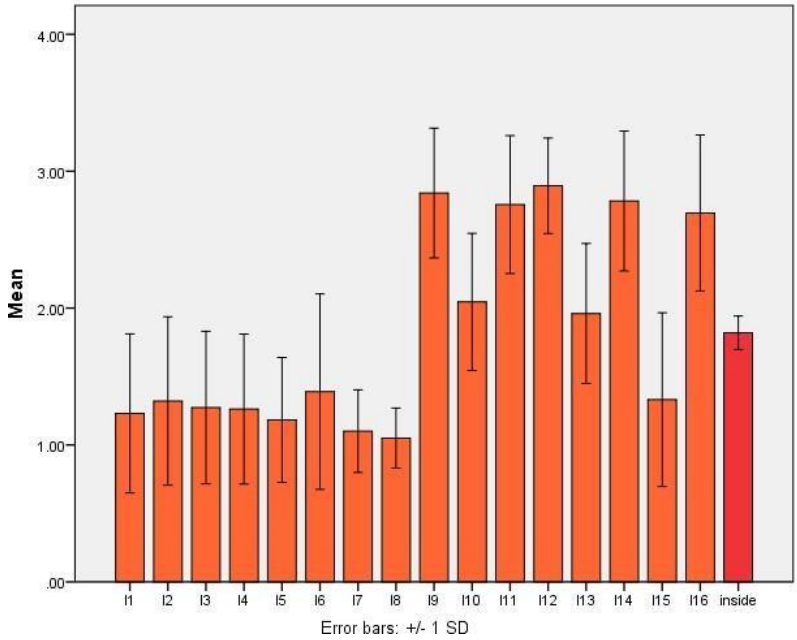

Figure 1 Inside the Classroom

Table 1 (Figure 1) shows the present physical environment in terms of inside the classroom of the three affected schools of typhoon Vinta. Result reveals that the respondents strongly agreed that adequate air ventilation might improve their academic performance (*M=2.76, SD=0.50*), strongly agreed that good sitting arrangement makes learning interesting (M=2.78, SD=0.51), strongly agreed that poor ventilation makes the lesson boring (M=2.84, SD=0.47) and they like to stay outside because classroom/tent is very hot (M=2.89, SD=0.35). This finding implied that the pupils have perceived that presentable physical inside classroom environment can enhance their performance and perform better in class with adequate air ventilation and good sitting arrangement. A good learning environment is essential for a successful later academic achievement and for the innovation power of a society. A sufficient indoor air quality and an adequate amount of daylight support the learning progress; on the other hand insufficient physical conditions promote distraction and absence (Haverinen-Shaughnessy 2015).

In addition, the respondents responded that they almost agreed that they can perform better in moderate classroom temperature (*M=2.05, SD=0.50*) and the classroom/tent has enough seats and desk for every pupil ((M=1.96, SD=0.51). This describes that the pupils have some concerns in regards to the class temperature inside the tents that somehow hinder their motivation to learn. Classrooms should therefore provide an optimal environment to support the learning behaviour of the pupils. One part of this environment is the physical indoor climate. The learning progress should not be hindered by e.g. a high noise level, overheated rooms or an unhealthy or stuffy air. In reality, many schools failed to provide these optimal environmental conditions as the ventilation rate is often too low (Eurostat 2015).

However, the respondents disagreed that their classrooms look and feel like a good work environment (*M=1.23, SD=0.58*), they disagreed that external noise levels do not interfere with learning (*M=1.26, SD=0.55*), they disagreed that they have adequate personal work space (*M=1.39, SD=0.72*) and they also perceived that they can perform better if their classrooms are renovated (*M=1.10, SD=0.30*). Bandura‟s (1986) social cognitive theory, construes human functioning as a series of reciprocal interactions between personal influences, environmental features and behaviours. The notion of reciprocal interactions illustrates how the environment can affect thoughts, beliefs, and behaviour. Urdan and Schoenfelder (2006) argue that it is important to embrace the social-cognitive view of student motivation and to understand that altering controllable factors in the classroom environment could considerably enhance students‟ motivation towards learning.

Thus, the general assessment of the respondents showed that they have impractical physical environment relative to inside the classroom after affected by the TS Vinta (*M=1.82, SD=0.12*).

Table 2

Present Physical Environment in terms of Outside the Classroom

Outside the Classroom	Mean	Description
O1.Our school ground is clean and safe	1.23±0.51	*Disagree*
O2.Our school is free from streams/ river	1.28±0.54	*Disagree*
O3.Our school is free from natural hazard(flood & Landslide)	1.19±0.45	*Disagree*
O4.Our school creates a healthy environment where we like to play	1.28±0.59	*Disagree*
O5. I am happy to be at school	2.17±0.47	*Almost Agree*
O6. This school is supportive and inviting place to learn	1.31±0.64	*Disagree*
O7. I feel safe in my school	1.35±0.69	*Disagree*
Average	***1.40±0.14***	***Disagree***

1.00-1.66	*Disagree*	*2.34-3.00*	*Strongly Agree*
1.67-2.33	*Almost Agree*		

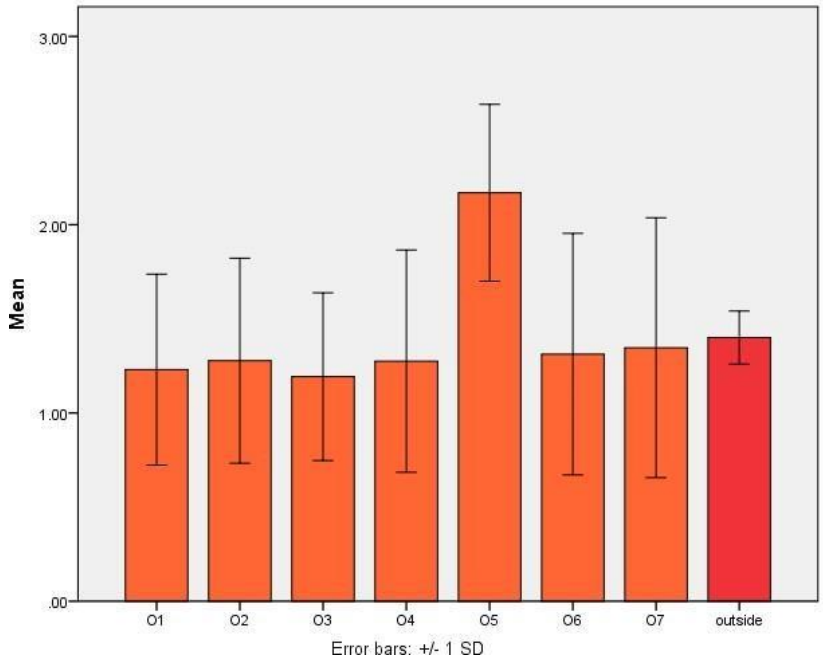

Figure 2 Outside the Classroom

Table 2 shows the present physical environment in terms of outside the classroom. Result displays that the respondents almost agreed that they are happy to be at school (*M=2.17, SD=0.47*). The pupils tried to be happy to be at school regardless of the destruction and devastation of their school brought by TS Vinta. However, the respondents disagreed that their school is supportive and inviting place to learn

(*M=1.31, SD=0.64*), creates a healthy environment where they like to play (*M=1.28, SD=0.59*), their school ground is clean and safe (*M=1.23, SD=0.51*) and they also disagreed that their school is free from natural hazard (*M=1.19, SD=0.45*). This suggests that the pupils viewed poorly on the outside classroom environment of their school after the devastation of TS Vinta. Urdan and Schoenfelder (2006) propose that enhancing student motivation requires attention to the key features of the school environment that are likely to influence student motivation.

Problem 2: What are the pupils learning behavior in terms of school attendance, initiative to do assignment, class recitation, cooperation in classroom activities?

Table 3
Pupils' Learning Behavior in terms of School Attendance

School Attendance	Mean	Description
S1.I come to school every day.	3.17±0.66	*Occasionally*
S2.I attend classes during examination only.*	4.71±0.67	*Rarely*
S3.I arrive at school after flag ceremony.	2.29±0.75	*Rarely*
S4.I am seldom absent in the class to care for my younger brothers or sister	3.16±0.75	*Occasionally*
S5.I dislike attending some classes because I dislike the teacher.*	3.80±0.73	*Rarely*
S6.I dislike attending some classes because the teacher requests me to something.*	3.01±0.93	*Occasionally*
S7.I dislike attending class especially during examination.*	3.71±1.05	*Rarely*
S8. I incur absences once or twice a week.	2.37±0.72	*Rarely*
Average	***3.28±0.28***	***Occasionally***

*Note: * - reverse scoring*

1.00-1.79	*Never*	*3.40-4.19*	*Frequently*
1.80-2.59	*Rarely*	*4.20-5.00*	*Always*
2.60-3.39	*Occasionally*		

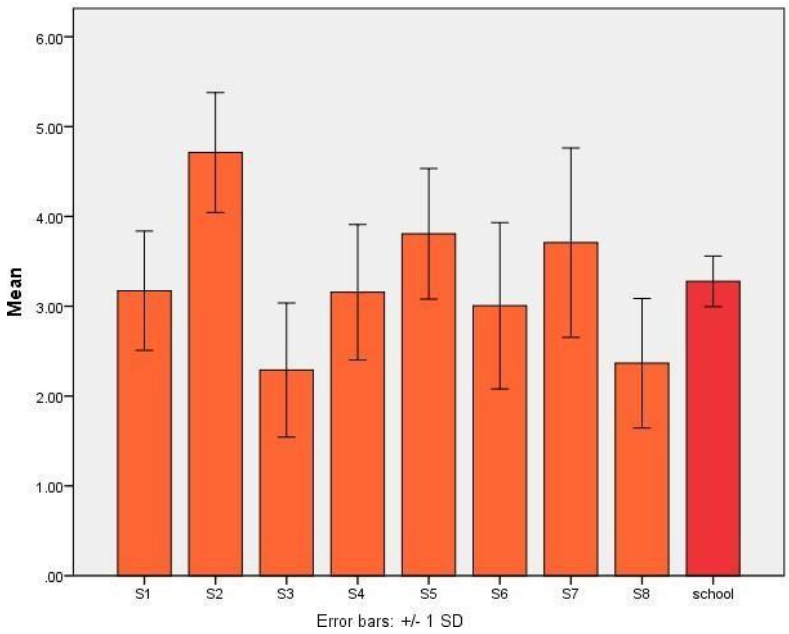

Figure 3 Learning Behavior in terms of School Attendance

Table 3 (Figure 3) shows that the pupils rarely attending classes during examination only (*M=4.71*, SD=0.67*), rarely dislike attending some classes because they dislike the teacher (*M=3.80*, SD=0.73*), rarely dislike attending class especially during examination (*M=3.71*, SD=1.05*) and rarely incur absences one or twice a week (*M=2.37, SD=0.72*). However, the pupils occasionally come to school every day (*M=3.17, SD=0.66*), seldom to be absent in the class to care for their younger brothers or sisters (*M=3.16, SD=0.75*) and occasionally dislike attending some classes since the teacher request them to something (*M=3.01, SD=0.93*). The results assess that the pupils do most of the time attending their classes and really perceived that teachers‟ welcoming and encouraging behaviors towards them could be an effective means of motivating them to go to school. Schunk and Zimmerman (2007) emphasised that teachers ultimately have the responsibility for increasing their students‟ positive selfbeliefs and capacity towards learning as they progress through school.

Table 4
Pupils' Learning Behavior in Terms of Initiative to do Assignment

Initiative to do Assignment	Mean	Description
IDA1. I do the assignment given by the teacher of every subject.	2.94±1.19	*Occasionally*
IDA2.I do my assignment only if it is easy.	3.57±0.95	*Frequently*
IDA3.I make the assignment during the end of classes	1.59±0.92	*Never*
IDA4.I make the assignment with the help of my parents.	2.49±1.20	*Rarely*
IDA5.I dislike making the assignment given by the teacher whom I do not like.*	2.97±0.85	*Occasionally*
IDA6.I answer assignment which contains guide questions	4.11±0.63	*Frequently*
IDA7.I make the assignment on my favorite subject.	4.95±0.23	*Always*
IDA8.I do the assignments if I want to.	4.87±0.43	*Always*
Average	***3.44±0.30***	***Frequently***

Note: **-reverse scoring*

1.00-1.79	*Never*	*3.40-4.19*	*Frequently*
1.80-2.59	*Rarely*	*4.20-5.00*	*Always*
2.60-3.39	*Occasionally*		

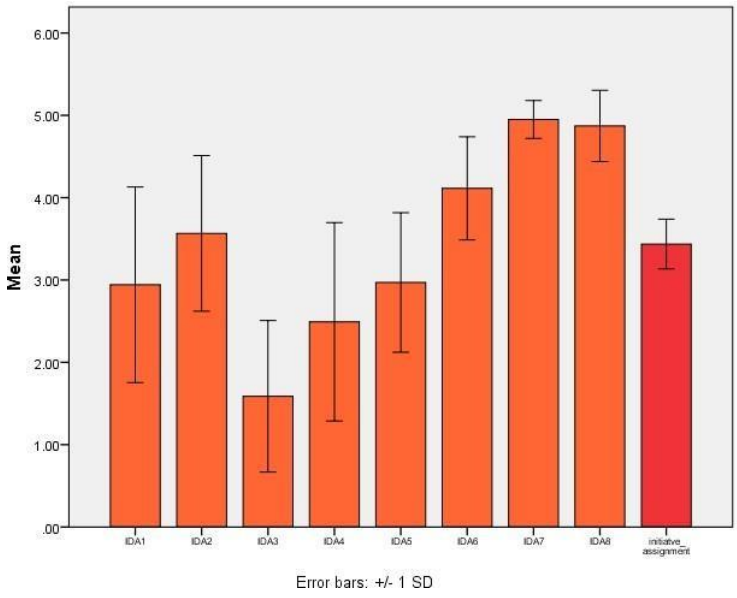

Figure 4 Learning Behavior in terms of Initiative to do Assignment

Table 4 (Figure 4) reveals that the pupils always make their assignment on their favorite subject (*M=4.95, SD=0.23*) and always do assignment if they wanted to (*M=4.87, SD=0.43*). Further, the pupils frequently answer assignment which contains

guide questions (*M=4.11, SD=0.63*) and do their assignments only if it is easy (*M=3.57, SD=0.95*). However, the pupils rarely make their assignment with the help of their parents (*M=2.49, SD=1.20*) and said that they never make their assignment during the end of classes (*M=1.59, SD=0.92*). This result describes that the pupils are really doing better in the initiative of making their assignments (*M=3.44, SD=0.30*). According to Evertson (1989), an effective teacher incorporates methods that improved pupils‟ performance. Innovative transitions are the connective tissues for creating a day-to-day routine of the classroom activities. They are the songs, games, poems that occur between the more prepared parts of the day‟s activities and help pupils focus attention and become motivated for upcoming events such as doing assignments for the next day.

Table 5
Pupils' Learning Behavior in terms of Class Recitation

Class Recitation	Mean	Description
CR1. I raise my hands if I know the answer.	2.32±0.64	*Rarely*
CR2. I answer only if I am called by my teacher.	3.94±0.63	*Frequently*
CR3. I am shy to raise my hands even if I know the answer.	4.37±0.82	*Always*
CR4. I volunteer to help the teachers in doing instructional devices.	2.25±0.60	*Rarely*
CR5. I accept responsibility as a leader.	3.01±0.93	*Occasionally*
CR6. I offer to do some board work.	2.10±0.93	*Rarely*
CR7. I act like a little teacher.	2.13±0.71	*Rarely*
Average	***2.87±0.29***	***Occasionally***

Note:	*1.00-1.79*	*Never*	*3.40-4.19*	*Frequently*
	1.80-2.59	*Rarely*	*4.20-5.00*	*Always*
	2.60-3.39	*Occasionally*		

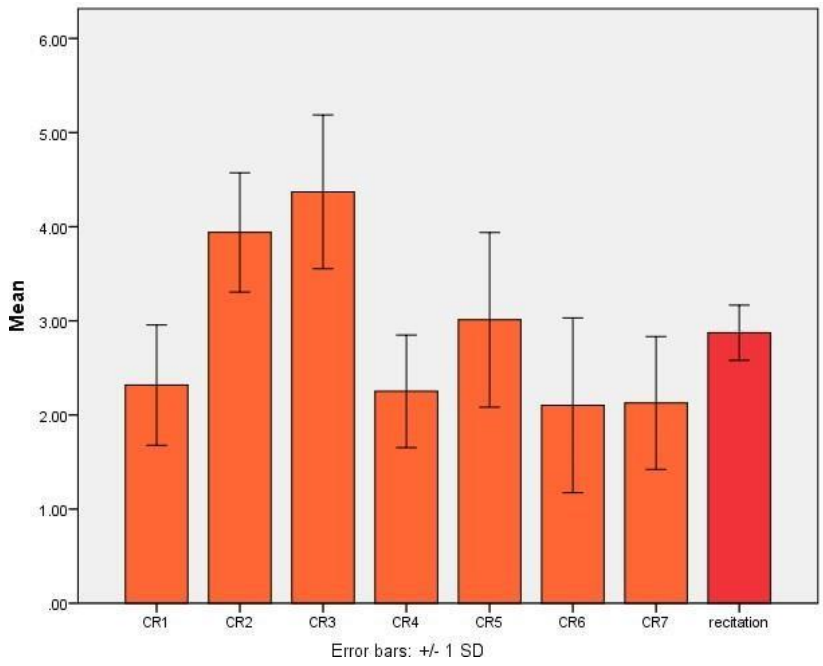

Figure 5 Learning Behavior in terms of Class Recitation

Table 5 (Figure 5) displays that the pupils always feel shy to raise their hands even if they know the answer (*M=4.37, SD=0.82*), and frequently answer if they are called by their teachers (*M=3.94, SD=0.63*). Further, the pupils occasionally accept responsibility as a leader (*M=3.01, SD=0.93*) but rarely raise their hands if they know the answer (*M=2.32, SD=0.64*), rarely acted like a little teacher in the class and rarely offer to do some board work (*M=2.10, SD=0.93*). This result describes that the pupils are participative and attentive in the class recitation.

Meanwhile, In Frymier‟s (1993) study regarding the effect of positive teacher behavior on the student‟s motivation level, the author has focused on certain behaviors for teachers such as giving advice for pupils works, praising, wanting to listen to students and being interested. The results of the study show that teachers‟ nonverbal actions such as smiling, having a relaxed posture, several gestures and facial expressions come first in improving the learning experience for students whereas the topic of the class itself comes in second. The pupil‟s performance is not completely the result of their work; performance is affected by many factors and the

first one is the attitude of the teacher. An encouraging attitude from the teacher affects the student‟s motivation, attitude towards school and school work, the student‟s self-confidence and as a result personality development.

Table 6
Pupils' Learning Behavior in Terms of Cooperation in Class Activity

Cooperation in Class Activity	Mean	Description
CCA1.I participates actively in classroom drills.	2.34±0.73	*Rarely*
CCA2.I participates in classroom instructional games.	2.80±1.06	*Occasionally*
CCA3. I listen actively when teachers give directions.	2.60±1.02	*Occasionally*
CCA4.I dislike socially-involved program done inside the classroom.	2.21±0.97	*Rarely*
CCA5. I help in maintaining the cleanliness of the classroom.	3.38±0.69	*Occasionally*
CCA6. I cooperate In group activities in each subject.	2.74±1.04	*Occasionally*
CCA7. I support fund raising in the classroom	3.13±0.64	*Occasionally*
	Average	***2.74±0.35***	***Occasionally***

Note: *1.00-1.79* *Never* *3.40-4.19* *Frequently*
1.80-2.59 *Rarely* *4.20-5.00* *Always*
2.60-3.39 *Occasionally*

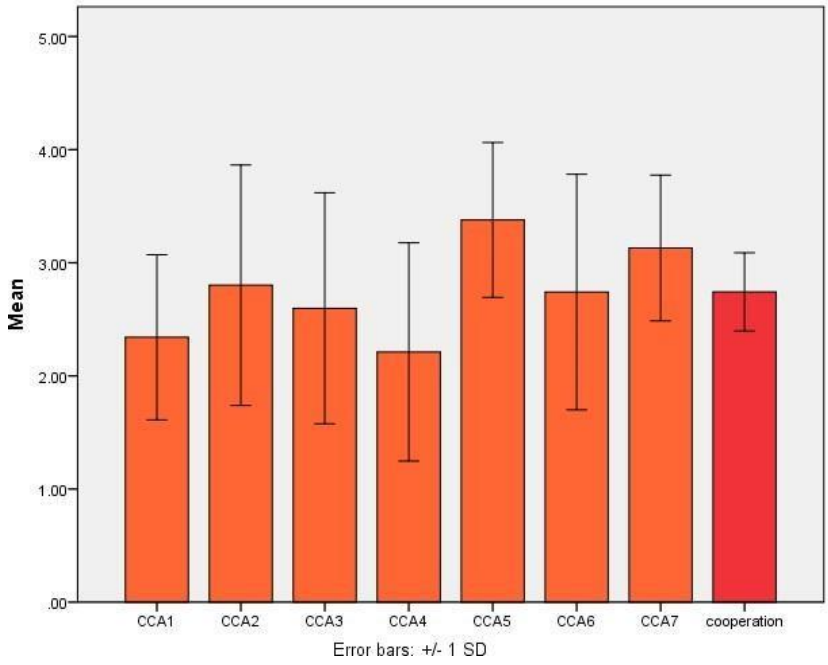

Figure 6 Learning Behavior in terms of Cooperation in Class Activity

Table (Figure 6) depicts that the pupils occasionally help in maintaining the cleanliness of the classroom (*M=3.38, SD=0.69*), occasionally support fund raising in the classroom (*M=3.13, SD=0.64*), occasionally participate in classroom instructional games (*M=2.80, SD=1.06*) and listen actively when teachers give directions (*M=2.60, SD=1.02*). On the other hand, the pupils rarely participate actively in classroom drills (*M=2.34, SD=0.73*) and rarely dislike socially-involved program done inside the classroom (*M=2.21, SD=0.97*). Pupils showed some moderate level of cooperation in class

Problem 3: Is there any significant relationship between School physical environment and learning behavior of pupils?

Table 7

Relationship between School Physical Environment and Learning Behaviors of the Pupils

Variables	1	2	3	4	5
1. School Attendance	---				
2. Initiative to do Assignment	-0.008	---			
	(0.870)				
3. Class Recitation	-0.067	0.014	---		
	(0.192)	(0.789)			
4. Cooperation in Class Activity	-0.088	0.063	-0.040	---	
	(0.088)	(0.223)	(0.444)		
5. Inside the Classroom	-0.144**	0.024	0.043	-0.016	---
	(**0.005**)	(0.638)	(0.405)	(0.758)	
6. Outside the classroom	-0.026	0.057	0.039	0.097	0.050
	(0.621)	(0.268)	(0.449)	(0.058)	(0.335)

*Note: **-significant at 0.01 level*

Table 7 presents the relationship between school physical environment and learning behaviours of the pupils using Pearson correlation. The result reveals that school attendance and physical environment relative to inside the classroom are significantly correlated (*r=-0.144, p=0.005*). This tells us that pupils having lower school attendance could be link to some level of poor classroom learning environment in the school.

However, the pupils‟ learning behaviour relative to initiative to do assignment, class recitation and cooperation in class activity are not significantly associated to both the inside and outside the classroom environment since the observed p-values exceeded at the 0.05 level of significance. This result suggests that some of the learning behaviours of the pupils are not interfered by the physical environment of the school.

Thus, the null hypothesis of no significant relationship between the school physical environment and the learning behaviours (except for school attendance) were not rejected.

Table 8

Regression Analysis Result of Relating the School Attendance to the Physical Environment relative to inside the classroom

Model	**β**	***t***	***p***	***F***	***df***	***p***	***adj. R^2***
(Constant)	**---**	27.663	0.000				
School Attendance	-0.144	-2.813	0.005				
Overall Model				***7.914****	***1, 375***	***0.005***	***0.018***
DV: Inside the Classroom							

*Note: **-significant at 0.01 level*

Table 8 displays that the school attendance behavior of the pupils has negative effect to the inside classroom environment (*t=-2.813, p=0.005*). This entails that high school attendance of the pupils could be associated to lower poor classroom learning environment in school. The overall model is significant (*F=7.914, p=0.005*) which signifies that school attendance might influence the physical environment of the school. The r^2 of 0.018 indicates that 1.8% of the variability of physical environment is explained by the school attendance learning behavior of the pupils.

Problem 4: What action plan can be formulated based on the result of the study?

Proposed Action Plan

I. Rationale

The over-all results of the study showed that the three affected school have impractical physical environment after being affected by the STS Vinta. Therefore, the following Action Plan is being proposed.

II. General Objectives

To promote a child-friendly environment through:

- Classroom Structuring
- Make initial steps in securing the school against natural calamities such as floods
- Link with Local Government Unit regarding DRRM promotion and implementation.

III. Schools' Physical Environment and Pupils' Learning Behavior Action Plan Matrix

Area of concerns	Objectives	Action(s) to be taken	Person(s) Responsible	Time Frame	Funding/ Budget	Success Indicators
A. Physical Environment (Inside the Classroom)	To create and innovate favourable classroom for teaching and learning process To promote meaningful learning process	Orientation program on the classroom structuring for all the principals and teachers	Division representatives, Division Supervisor, School Principal and Teachers	Before 2019-2020	P30,000	School Principals and teachers are wellinformed in the beautification of the classroom.
B. Physical Environment (Outside the Classroom)	To secure the school against calamities To promote DRRM awareness	Tree Planting, Put up fence, Proper waste disposal and Flood Drill	School Principal, Teachers, LGU representatives (DRRM)	Before 2019-2020	P500,000	At least 80% of the activities are implemented
C. Learning behaviour In terms of School Attendance	To uphold conducive learning environment for the	The school principal must monitor and assess their respective	School Principal and Teachers	Before 2019-2020	P20,000	Improve classroom environment, teachers motivation and students school attendance.

	students To maintain a significan t and long lasting learning for the students	teachers in terms of classroom observatio n Reaching out to the teachers and students through the discussion of school matters.				

B. Plan for Data Analysis

According to Murugan and Rajoo (2013) data analysis is the statistical technique or tools employed in analysing the research data. Thus the data will be collected and subjected to descriptive statistical analysis by computing the mean (average) and standard deviation (SD) of each item. The decision rule is to reject an item whose mean fall below 3.00 since it will use 5 point scale. Moreover, for the purpose of testing the hypothesis, the data will be analysed using inferential statistics.

VI. Plans for Dissemination and Advocacy

Dissemination and utilization of research results are crucial in the achievement of learning outcomes, and improve teaching-learning and governance process in school. The researchers will take measures to ensure the dissemination and utilization of research results in various setting such as:

Learning Action Cells (LAC's) .The researchers will maximized the LAC sessions by sharing the result of completed research study. The

result may serve as an input for teachers in their respective teachinglearning strategies.

In-Service Training (INSET). The researcher will include discussion of result of the research study in the training design.

School Governing Council. Research results and proposed actions can be presented during school planning and monitoring activities.

Enhanced School Improvement Plan (ESIP)/Annual Improvement Plan (AIP). The results may be incorporated in the SIP School Planning activities and may also be plotted as research initiatives in the SIP and AIP.

School Report Card (SRC). Interventions made as a result of action results may be included in the SRC.

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