

# INFLUENCE OF SCHOOL MANagements' AND TEACHERS' RESPONSE ON EARLY WARNING SIGNS TO CREATION OF SAFE SCHOOL ENVIRONMENT FOR SECONDARY SCHOOLS IN BENUE STATE: IMPLICATIONS FOR MATHEMATICS EDUCATORS

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## **Abstract**

*This paper investigated the influence of school managements' and teachers' response on early warning signs to creation of safe school environment for secondary schools in Benue State. The population of the study consisted of all Senior Secondary School two students in Benue State. The total sample of this study was 400 students drawn using Taro Yamane formula for determining sample size. The instrument used for data collection was a structured questionnaire which contains 30 items. A survey research design was used for the study. Two research questions were asked and two hypotheses were formulated to guide the study. The research questions were answered using mean and standard deviation while the hypotheses were tested at 0.05 level of significance using chi-square statistical tool. The findings of this study indicated that school management's and teachers' response has a positive influence on early warning signs in secondary schools in Benue State. One of the recommendations made was that, the school should be a role model for students' to follow and emulate.*

**Keywords:** *School Managements' Response, Teachers' Response, Early Warning Signs.*

## **Introduction**

A safe school is one where teaching and learning are not distracted; disruptions are minimized; violence, drugs, bullying and fear are not present; students are not discriminated against; expectations for behaviour are clearly communicated; and consequences for infractions are consistently and fairly applied. Behaviour patterns such as poor academic performance, low school interest, withdrawal from social school activities and sexual harassment among others are never entertained in a safe school environment. According to Anderson (2000) a safe school environment which includes the classrooms is a place where absolute silence and good classroom managements are required.

Several research have observed that different combination of events that serve as treats or potential dangers to the safety of the students, staff or the entire school environment are present in our schools. These events are referred to as Early Warning Signs (Chieshe, 2020). Some of the early warning signs that students express include: social withdrawal from school activities, feelings of isolation, low school interest, poor academic performance and expression of uncontrolled anger. Others include intimidation, emotionally painful rejection by students and teachers and bullying behaviours. Other students indulge in drug and alcohol use, indecent dressing, sex abuse, affiliation with gangs, inappropriate use and possession of weapon such as cutlasses, knives, axes, guns, sharp objects like horns, iron and sticks (Dwyer and Osher, 2000). The physical early warning signs that the school experience includes: cracked buildings and

collapsed roofs, poor toilet facilities, inadequate lighting in classrooms, poorly equipped Mathematics laboratories, absence of facilities for extra-curricular activities (Chieshe, 2020). Taking social withdrawer from the school activities for example, a child who absent his or herself from the practical school activities that provides him/her with the opportunity of developing his/her cognitive, affective and psychomotor skills such as investigating, researching, criticizing, creative thinking and illustrating what they have learnt in class is bound to experience the effect of the decay theory of forgetting which states that if a person does not access and use the memory trace representation he/she has formed, the memory trace will fade or decay over time (Thorndike, 1914). Similarly, students who indulge in drugs and alcohol use cannot perform academically well. Apart from being unhealthy behaviours, drug use and alcohol use reduce self-control and expose students to violence, either as perpetrators, as victims or both. As an unhealthy behaviour, students who indulge in alcohol use always smell of alcohol even in the class to the detriments of other students. The students experience headache, dizziness and even high blood pressure as they go about their academic life. On how alcohol reduces self-control, the U.S Department of Education (2000) revealed that students who over drink can easily urinate in their dress without knowing they are doing so. They can react to minor issues as if they are serious issues. With drug and alcohol use, students can indulge in cultism, sexual abuse and all sort of violence under the influence of these drugs and alcohol (U.S Department of Education, 2000). In the same vein, anger which is considered a silent early warning signs that has brewed more problems in schools than any other early warning sign can cause an unsafe environment in a school. These events can occur on and on until the student lose interest in school and even dropout out of school.

Since Mathematics is a human activity built upon intuitive understandings and agreed conventions that are not eternally fixed, mathematical skills cannot therefore be developed in an environment that is not safe. An interrupted instinct cannot give an equal stimulus to the blending of the three educational domains: cognitive, psychomotor and affective domains (Thorndike, 1914). Though some of these early warning signs are visible in Benue State secondary school environments; actions and in-actions of relevant stakeholders such as school management and teachers have already resulted in some unpleasant consequences such as secret cults, sexual harassment, drug abuse, dangerous gangs and cliques. The response of the school managers and their teachers to this early warning signs in our secondary schools further appears to compound this problem of unsafe school environment. It is expected that school managers and their teachers will help in the early detection and management of early warning signs resulting in safe school environment. Hence, the researcher was motivated to investigate the influence of school managements and teachers response on early warning signs in order to create a safe environment for secondary schools in Benue State. The implications of these responses for the Mathematics Educators were also considered.

### **Statement of the Problem**

Mathematics is an important human endeavour and has many educational values apart from its technological importance. First, it offers a vast number of structures such as numbers, algorithms, shapes, ratios, functions and data that are useful in understanding physical realities. Secondly, mathematics is a human activity built upon intuitive understandings and agreed conventions that are not eternally fixed and that its frontier is covered by many unanswered questions. Thirdly, mathematics encourages settling arguments by evidence and proof. Finally, mathematics demonstrates how important it is to subject a familiar thing to detailed study and to

study something that seems hopelessly intricate (Becker 2005). Mathematical skills cannot therefore be developed in an environment that is not safe. Various types of behaviour patterns of serious concern such as poor academic performance, low school interest, social withdrawal from school activities, bullying, drugs/alcohol use and sexual harassment among others have been observed in our schools (Chieshe, 2020). Some of the best secondary schools in the state have started witnessing low intake of students because parents noticed presence of secret cults and other forms of hostilities among some students. Some of the parents have expressed dissatisfaction with measures put in place by some school managements to check the menace. This study therefore seeks to find out the influence of school managements' and teachers response on early warning signs to the creation of a safe school environment for secondary schools in Benue State considering the position of the Mathematics education teacher.

### **Purpose of the Study**

The purpose of the study was to investigate the influence of school managements' and teachers' response on early warning signs to creation of safe school environment for secondary schools in Benue State. Specifically, the study seeks to:

1. Determine the influence of school management's response on early warning signs to create a safe school environment for secondary schools in Benue State
2. Ascertain the influence of teachers' response on early warning signs to create safe school environment in secondary schools in Benue State.

### **Research Questions**

The following research questions were raised to guide the study:

1. What is the influence of school management's response on early warning signs to create a safe school environment for secondary schools in Benue State?
2. What is the influence of teacher's response on early warning signs to create a safe school environment for secondary schools in Benue State?

### **Hypotheses**

The following hypotheses were formulated for the study and tested at 0.05 level of significance:

1. School management's response has no significant influence on early warning signs to create a safe school environment for secondary schools in Benue State.
2. Teacher's response has no significant influence on early warning signs to create a safe school environment for secondary schools in Benue State.

### **Methodology**

The study employed survey research design. The design is considered most appropriate because variables (early warning signs and their responses) according to Emaikwu, 2010 lends' itself to the use of measurement materials, which yield precision and objectivity. Using the Taro Yamane (1967) sample size determination formula, 400 students from a population of 630,508 students across three local government areas of Kwande, Buruku and Okpokwu in Benue State (Benue State Government, (2005) participated in the study. The formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

where:

$$n = \text{Sample size required}$$

N = Population size  
e = Level of significance  
1 = Constant

Using this formula, the following computation was done and a sample of 400 participants was reached:

n = Sample size required  
N = Population size = 630508  
e = Level of significance = 0.05  
1 = Constant

$$n = \frac{630508}{1+630508(0.05 \times 0.05)}$$

$$n = \frac{630508}{1+630508(0.0025)}$$

$$n = \frac{630508}{1+1576.27}$$

$$n = \frac{630508}{1577.27}$$

$$n = 399.746$$

$$n = 400$$

The instrument for data collection is a self-structured questionnaire titled: School Management's and Teachers' Response on Early Warning Signs (SMTREWS) for the students. Two research questions were raised and two hypotheses were formulated to guide the study. The research questions were answered using the mean scores while the hypotheses were tested at 0.05 level of significance using Chi-square ( $X^2$ ) statistical tool. For each question, separate mean scores were obtained to take decision on the item on the instrument. A decision mean of 2.50 was set for the means as the decision point. This was because a four point rating scale was used. That is  $4+3+2+1= 10$ .  $10/4 = 2.50$ . A mean score below 2.50 was considered as a disagreement to the item while any mean of 2.50 and above was an agreement with the item. If the p-value obtained is greater than 0.05 significant level, the null hypothesis is retained and in the alternative, if the p-value obtained is less than or equal to 0.05 significant level, the null hypothesis was rejected. The Chi-square ( $X^2$ ) statistical tool is deemed appropriate since it takes care of items provided on a continuum of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD).

## Results and Discussion

**Research Question 1:** What is the influence of school management's response on early warning signs to create a safe school environment for secondary schools in Benue State?

**Table 1:** Mean and Standard Deviation of School Management's Responses on Early Warning Signs to Create a Safe School Environment for Secondary Schools in Benue State

S/N	Questionnaire Item	SA	A	D	SD	Mean	SD	Decision
1	Referring students to specialist is a good response	133	112	85	70	2.77	1.093	Agree
2	School-wide anti-bullying and anti-cyber-bullying programs are in my school	138	63	129	70	2.67	1.124	Agree
3	School serving as good models for students to emulate	108	85	120	87	2.53	1.107	Agree
4	Helping students to understand the value of accepting individual differences	107	130	71	92	2.63	1.109	Agree
5	Developing a responsive plan to include PTA officials	133	111	88	68	2.77	1.087	Agree
6	Consulting with school staff to implement programmes that foster mathematical skills	138	63	129	70	2.67	1.124	Agree
7	Peer mediation is a good tool in the school	108	85	120	87	2.53	1.107	Agree
8	There is a team of trained mathematicians in our school	100	70	152	78	2.48	1.068	Disagree
9	Students are not discriminated against	138	96	86	80	2.73	1.135	Agree
10	Expectations for behaviour are clearly communicated	155	61	109	75	2.74	1.160	Agree
11	Consequences for infractions are consistently and fairly applied.	133	71	136	60	2.69	1.086	Agree
12	Conflict resolution help in stopping unsafe school environment	94	101	99	106	2.45	1.116	Disagree
13	I am made to understand the importance of school	91	106	78	125	2.40	1.150	Disagree
14	Provide interesting mathematical school activities	132	32	168	68	2.57	1.117	Agree
15	Rewarding students who are doing well in school	124	48	148	80	2.54	1.127	Agree
<b>Cluster Mean:</b>						<b>2.61</b>		

Table 1 shows that items 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 14 and 15 have mean scores of 2.77, 2.67, 2.53, 2.63, 2.77, 2.67, 2.53, 2.73, 2.74, 2.69, 2.57 and 2.54 that are greater than the decision

mean of 2.50 respectively. While items 8, 12 and 13 have mean scores of 2.48, 2.45 and 2.40 that are less than the decision of 2.50 respectively. The cluster Mean of 2.61 was also greater than the decision mean of 2.50. To find out if the difference in means was statistically significant, hypothesis one was therefore tested.

**H<sub>01</sub>:** School management’s response has no significant influence on early warning signs to create a safe school environment for secondary schools in Benue State

**Table 2:** Chi-square ( $X^2$ ) Analysis of Respondents on the Influence of School Management’s Response on Early Warning Signs

<b>Opinion</b>	<b>Observed Freq.</b>	<b>Expected Freq.</b>	<b>Df</b>	<b><math>X^2</math></b>	<b>P-value</b>	<b>Decision</b>
Strongly Agree	1832	6000	42	322.552	0.001	Significant
Agree	1234	6000				
Disagree	1718	6000				
Strongly Disagree	1216	6000				

$P \leq 0.05$

Results from table 2 shows a chi-square value of 322.552 at 42 degree of freedom which is significant. This is because the p-value of 0.001 is less than 0.05. The null hypothesis is therefore rejected. This implies that school management’s response has a positive influence on early warning signs in secondary schools in Benue State.

**Research Question 2:** What is the influence of teachers’ response on early warning signs to create a safe school environment for secondary schools in Benue State?

**Table 3:** Mean and Standard Deviation of the Influence of Teacher’s Response on Early Warning Signs to Create a Safe School Environment for Secondary Schools in Benue State

<b>S/N</b>	<b>Questionnaire Item</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>	<b>Mean</b>	<b>SD</b>	<b>Decision</b>
16	Teaching students how to solve problems	109	99	93	99	2.54	1.136	Agree
17	Helping students to respect individual differences	84	232	46	38	2.90	0.835	Agree
18	Sending out noise makers from the class room	99	47	112	142	2.25	1.183	Disagree
19	Ignoring students who misbehave in class	106	79	153	62	2.57	1.042	Agree
20	Rewarding students when they perform well,	103	93	80	119	2.47	1.178	Disagree
21	Treat all infractions severely	30	232	46	92	2.50	0.928	Agree
22	Rules of the school do have meaning and are enforced	170	16	110	104	2.63	1.267	Agree
23	Rules of the classroom do have meaning and are enforced	139	77	109	75	2.70	1.132	Agree

24	Drug/alcohol vendors should not be allowed on campus	165	63	112	60	2.83	1.125	Agree
25	My classroom is not dark	106	109	123	62	2.64	1.034	Agree
26	Classroom behaviour management programmes are effective	108	109	94	89	2.59	1.109	Agree
27	Encourage Parents-Students relationship	92	16	232	60	2.35	0.994	Disagree
28	My class layout is well organized	140	16	140	104	2.48	1.213	Disagree
29	My maths teacher is calm in the face of aggression and disruption	109	107	109	75	2.62	1.075	Agree
30	Positive behaviours makes classroom welcoming	60	296	30	14	3.00	0.604	Agree
<b>Cluster Mean:</b>						<b>2.60</b>		

Table 3 shows that items 16, 17, 19, 21, 22, 23, 24, 25, 26, 29 and 30 have mean scores of 2.54, 2.90, 2.57, 2.50, 2.63, 2.70, 2.83, 2.64, 2.59, 2.62 and 3.00 that are greater than the decision mean of 2.50 respectively. While items 18, 20, 27 and 28 have mean scores that are less than the decision mean of 2.50 respectively. The cluster Mean of 2.60 was also greater than the decision mean of 2.50. To find out if the difference in means was statistically significant, hypothesis two was therefore tested.

**H<sub>0</sub>2:** Teacher's Response has no significant influence on early warning signs to create a safe school environment for secondary schools in Benue State

**Table 4:** Chi-square ( $X^2$ ) Analysis of the Influence of Teacher's Response on Early Warning Signs to Create a Safe School Environment for Secondary Schools in Benue State

Opinion	Observed Freq.	Expected Freq.	Df	$X^2$	P-value	Decision
Strongly Agree	1687	6000	42	1604.165	0.001	Significant
Agree	1405	6000				
Disagree	1775	6000				
Strongly Disagree	1133	6000				

$P \leq 0.05$

Results from Table 4 shows a chi-square value of 1604.165 at 42 degree of freedom which is significant. This is because the p-value of 0.001 is less than 0.05. The null hypothesis is therefore rejected. This implies that teachers' response has a positive influence on early warning signs in secondary school in Benue State.

### Discussion of the Findings

This study examined the influence of school management's and teachers' responses to early warning signs to creation of safe school environment of selected secondary schools in Benue State. The first research question focuses on the school management's responses to early warning signs. The study revealed that school management's response has a positive influence on early warning signs in secondary schools in Benue State.

This finding is in agreement with that of Brand, Felner, Shim, Seitsinger and Dumas (2003) who found out that school provided students with the tools and resources to know how to communicate with adults about rumours, threats or abusive behaviours. These tools and resources include school-wide anti-bullying, anti-cyber-bullying, conflict resolution, and peer mediation programs, as well as access to trained mathematics teachers, social workers and mentors in the school setting.

The U. S. Department of Education and Justice (2000) also found that referring students to specialist, school serving as good models for students to emulate and helping students to understand the value of accepting individual differences among others are good responses to early warning signs in the classroom. They also reported that developing a responsive plan to include PTA officials and consulting with school staff to implement programmes that foster social and mathematical skills are salient intervention programmes that the school management can consider as good responses to early warning signs.

The Centre for the Prevention of School-aged violence (2013) reported that once school staff, parents, and community members become familiar with the warning signs and understand the urgency of being responsive to a child exhibiting signs, they need to know how to respond. In the majority of schools, a team of trained mathematicians already exists that provides consultation, evaluation, and intervention for students who are struggling academically, behaviourally, and socially.

Larson and Mark (2014) in their findings reported peer mediation as a school management response. A cadre of student mediators is taught an interest-based negotiation procedure, along with communication and problem-solving strategies to help peers settle disagreement without confrontation or violence. They found that students come to mediation voluntarily and are guided by peer mediators to move from blaming each other to devising solutions acceptable to all parties. While some peer mediation programmes mediate only in informal situations such as the playground, others bring peer mediators into the classroom to help resolve student disputes.

In Benue State, peer mediation is most often implemented as part of a broader conflict resolution programme and not as vivid as in Larson and Mark (2014) case. However, the use of peer mediation can substantially change how Benue State students approach and settle conflicts: students involved in peer mediation often express a greater willingness to help friends avoid fights and solve problems, and are less likely to believe that certain individuals deserve to be "beaten up." Implementing peer mediation programs in Benue State secondary schools is associated with reduction in fights, office referrals and school suspensions.

The study also revealed that teachers' response has a positive influence on early warning signs in secondary school in Benue State. This was observed in areas of treating students fairly, teaching students how to solve problems, helping students to respect individual differences, sending out noise makers from the class room, ignoring students who misbehave in class and rewarding students when they perform well.

These findings agree with the work of Anderson (2000) who found that ignoring misbehaviour gives students the message that posted rules are not really in effect. He further



revealed that while it is not necessary to treat all infractions severely, it is necessary to let students know through consequences appropriately geared to infractions, that the rules of the school and classroom do have meaning and will be enforced. The work of the present researcher and that of Anderson (2000) support the view that school-wide classroom behaviour management programmes are effective in decreasing suspension, expulsion, and dropout, reducing teacher burnout, and improving student on-task behaviour and academic achievement. Students learn those lessons best if classroom management procedures are consistent both within and across classrooms since classroom management is really about teaching students what are and are not appropriate ways to behave in the school and classroom. The goal of classroom behaviour management strategies by teachers is not simply to control student behaviour, but rather to help students develop self-control and responsibility. Thus, any classroom management strategy might be viewed as much as instruction in social interaction, as control of misbehaviour. Emphasizing positive behaviours makes classroom and school environments more positive and welcoming; this can be used as powerful intervention to increase student connectedness in Benue State secondary schools.

This finding also agrees with that of American Psychological Association, (2013) who also found that it is difficult for any of the teacher to maintain a sense of calm in the face of aggression and disruption, since angry or emotional responses on the part of teachers or administrators simply feed a cycle of escalation. They discovered that classroom management packages such as organized layout of desks to facilitate easy movement, well-paced lessons or even simple praising of appropriate behaviour provide a system of responses that help school personnel decelerate rather than accelerate emotional conflict by students.

### **Conclusion**

Based on the results of this study, it has been established that school management's and teachers' response has a positive influence on early warning signs in secondary school in Benue State.

### **Recommendations**

Based on the findings of this study, the following recommendations were made:

1. Mathematics student' should be involved in all the intervention programs the school have put in place to create a safe school environment
2. The school should serve as a good model for students' to emulate.

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