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EVALUATION OF THE EFFECTS OF INSTRUCTIONAL RESOURCES AND SUPERVISION ON STUDENTS' ACADEMIC PERFORMANCE IN MEZAM DIVISION-CAMEROON

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ABSTRACT

This study was undertaken to carry out process evaluation of the effectiveness of instructional resources and supervision for enhancing students' academic performance in grammar secondary schools in Mezam Division-Cameroon. Two research questions and two null hypotheses guided the study. Survey research design, Vygotsky's sociocultural theory and Gagne's nine events of instruction were adopted for the study. The population for the study was made up of 10 Geography heads of department (HODs), 50 teachers of Geography and 1100 form five students of Geography. With the help of Krejcie and Morgan (1970) table, a sample size of 339 respondents was used for the study. An interview guide and questionnaires with 0.83 and 0.81 reliability coefficients were used for data collection. Research questions were answered using mean, standard deviation and frequency. Analysis of variance (ANOVA) test was used to test the hypotheses at 0.05 level of significance. Findings revealed that, teachers and HODs use of instructional resources positively and significantly affected students' academic performance, while their use of instructional supervision positively but insignificantly affected students' academic performance at the secondary school level in Mezam Division. Based on these findings, it was recommended among others that, instructional resources which were adjudged to be very effective to enhance students' performance be made available while seminars be organised frequently to acquaint the supervisors and teachers with necessary skills needed for instructional supervision and effective teaching.

Keywords: Instructional resources, supervision, students' academic performance

Introduction

One of the major problems facing the school system in Cameroon is that of inadequate instructional resources and supervision.It should be noted that these problems are interrelated. For example teachers' inability to usesuitable instructional resources leaves much to be desired from the perspective of their supervision of instructional objectives, resources, methods, activities and students' learning. Similarly, teachers or administrators inability to supervise instruction leaves much to be desired from the perspective of objectives, resources, methods, activities and students' learning. It is in a bid to redress these looming problems that the government has adopted legislations and strategies that focused on the provision of instructional resources and supervisory service (Cameroon, 1998). For example, the different types of materials (aids) that teachers use in teaching has been

tailored towards making not only learning more interesting and memorable but also enhancing instructional supervision and students' academic performance in Cameroon (MINESEC/IGE/IP-SS, 2019). Also, the implementation of instructional resources and supervision at the school level prescribed a participatory approach for the successful transformation of teaching and learning (MINESEC/IGE/IP-SS, 2019).

In an attempt to implement the participatory approach, the legislative framework made provision for regular monitoring of the educational system. For example, article 30 of Law No 98/004 of 14 April 1998 reiterated that, the state should regularly monitor the performance of the educational system. The purpose of monitoring is to provide information and data that would be used to improve the performance of the system (Cameroon, 1998). Unfortunately, the implementation of the legislation pertaining to supervision of instruction is inadequate (Titanji, 2017).

To many scholars (Fonkeng and Tamanjong, 2009), supervision in secondary schools in the past consisted of inspection but today, the concept has changed not only to the provision of services but to the coordination of instructional resources amongst other resources. This is because the instructional resources prescribed to facilitate the teaching and learning of arts, science and social science subjects are numerous. For example, the instructional resources prescribed for use in a social science subject like Geography are: globes, assorted map extracts, survey instruments (prismatic com-pass, chain, tape measure, arrow, ranging poles, global position system) and digital cameras, computer compact discs and videos of various geographical features and events which facilitate the teaching and learning of the discipline (MINESEC/IGE/IP-SS, 2019). Given the variety of instructional resources prescribed, it is expected that students' academic performance in Geography should increase.

A critical examination of data on the Cameroon General Certificate of Education (GCE) for Bamenda III between 2020 and 2021 in Geography revealed a 3.45% increase in students' academic performance. The qualitative results revealed that candidates who passed with A grade rose from 2.8% in 2020 to 4.1% in 2021 and then candidates who passed with B grade rose slightly from 14.2% in 2020 to 15.8% in 2021 while candidates who passed with C grade dropped slightly from 82.5% in 2020 to 80.1% in 2021. Inspite of the slight increase in performance, the candidates who failed with D grade rose slightly from 40.85% in 2020 to 49.75% in 2021. It is in view of this poor academic performance that efforts are being made to analyse the effects of instructional resources and supervision in Mezam Division in the quest to enhance transformative teaching and learning in the North West region of Cameroon.

Research Questions

- What are the effects of teachers' use of instructional resources on students' academic performance in grammar secondary schools in Bamenda III Municipality?
- What are the effects of instructional supervision on students' academic performance in grammar secondary schools in Bamenda III Municipality?

The researchers also attempt to test the following research hypotheses

$H0_1$: Teachers' use of instructional resources has no significant effects on students' academic performance in grammar secondary schools in Bamenda III Municipality.

$H0_2$: Instructional supervision has no significant effects on students' academic performance in grammar secondary schools in Bamenda III Municipality.

Literature Review

The theoretical framework of this study hinges on, Vygotsky (1978) socio-cultural theory of teaching, learning and development. The theory assumed that, human mind develop through interaction with materials or tools in the learning process where people learn from each other and use their experiences to successfully make sense of the material they interact with. Vygotsky's theory is useful in this study because the study emphasizes that there is a positive association between the materials that teachers' use with students and their academic performance.

Teachers and administrators need to have a prior base of knowledge for teaching and supervision of instruction to be effective. Gagne's nine events of instruction is a great example of teaching and supervision in action. Gagne's nine events of instruction assumed that, learning would occur when students' progress through the nine levels of learning. He further believed that, any teaching session should include a sequence of events through all nine levels. Used in conjunction with sociocultural theory of teaching, learning and development, Gagne's nine level of learning provide a framework that teacher as well as administrations can use to implement and monitor instruction. The implications of this theory to this study is that, teaching practices or coordination and supervisory service that focuses on teachers' use of a variety of instructional materials to gain attention, inform students of the objectives, stimulate recall of prior learning, present the content, provide learning guidance, elicit performance, provide feedback, assess performance and enhance retention and transfer of learning are critical for improving teaching practices in Geography and consequently, students' academic performance. From the foregoing theory, there is a positive association between instructional resources or supervision and students' academic performance.

Empirically, mixed results were reported by scholars that used the survey design to examine the effects ofteachers' use of instructional resources on students' academic performance. For instance, Okobia (2011) used a sample of 50 social studies students and his t-test results revealed that, instructional resources and materials available were grossly inadequate in junior secondary schools in Edo State-Nigeria. To reaffirm Okobia's findings, Habiyambere (2015) used a correlation research design to investigate the effects of teachers' use of instructional resources on students' academic performance in Karongi District-Rwanda. He used questionnaire to collect data from 120 students, 1 head teacher, and 3 teachers who were purposively selected. The findings revealed that students' academic performance was better in schools where the government provided instructional resources as compared to public and private schools where these resources were not available or inadequate. Similarly, Wamakko (2015) used a correlational research design to

examine the relationship between teachers' use of instructional materials and students' academic achievements in Geography at ordinary level in selected secondary schools in Mbale Municipality- Uganda. A total sample of 323 respondents was selected using census and stratified random sampling, 26 Geography teachers and 297 students were selected from a study population of 26 and 1240 respectively. The instruments for data collection were self-design questionnaires and documented Geography results of 2013-2014. The data collected were analysed using descriptive statistics and Pearson Product Moment correlation. The findings revealed that the use of visual, audio-visual and real objects by Geography teachers does not necessarily improve students' academic performance in Geography.

One year later, Bulama et al., (2020) used the quasi experimental design to investigate the effects of instructional materials on academic achievement in Geography among secondary school students' in Michika Local Government Area, Adamawa State – Nigeria. A pre-test was administered at the beginning of the period while post-test was administered at the end of the 3 weeks to 30 students from each of the experimental and control groups. The instrument used for data collection was the Geography Achievement Test. The findings revealed that, there was no statistically significant difference in academic achievements between boys and girls taught with or without the use of instructional materials. However, the t-test results revealed a statistically significant difference in the students' academic achievement between students exposed to the use of instructional materials and those not exposed to the use of these resources. Mugisha (2020) findings in Rwanda reaffirmed Bulama et al., (2020) findings.

In Tanzania, Mzinga and Onyango (2021) adopted the mixed research approach to investigate the role of instructional materials on Geography students' learning. Mzinga & Onyango purposively sampled 4 out of 23 secondary schools in Busega District. The sampled schools had exhibited a severe declining performance in Geography at the National examinations for the last five years. He further used purposive, stratified and simple random sampling techniques to select 5 heads of schools, 4 heads of Geography department, 8 Geography teachers and 80 students. Questionnaires and interview guides were used for data collection. Mzinga & Onyango (2021) findings indicated that teachers' use of learning materials in Geography enhanced not only learners' creativity and innovativeness but their understanding of difficult topics and consequently, improved their academic performance.

Interestingly, several researchers from different African countries have argued that instructional supervision has either a strong or weak positive effects on students' academic performance. Specifically, in Nigeria Olatunji (2012) and Dangara (2015) used the descriptive survey design and reported that supervisory practices like: class visitations by school administrators, checking of teachers' punctuality, checking of students' notes and moderation of examination questions and marking scheme had significant positive effects on students' academic performance in senior secondary schools in Ondo and Nasarawa State.

In the same line, Wanjiku (2012) in Kenya used a descriptive research design

and argued that checking and ensuring the preparation of the schemes of work, checking the preparation and use of lesson plans were the most common instructional supervision practices whereas classroom visitation during lesson progress was rarely practised. The study also found that holding model teaching sessions and organizing programmes which catered for individual teacher differences were the most effective practices of instructional supervision. Wanjiku (2012) findings further revealed that the practice of observing teachers in class as they teach by head teachers had the least influence on students' performance in Kenya. Similarly, in Tanzania, Makau, Ronoh, Tanui (2016) used a descriptive research design, a sample of 68 principals and 272 teachers and found a significant positive relationship between the practice of instructional supervision and academic achievement in all the subjects.

Research Method

The survey research design was used. Geographically, the study was conducted in Bamenda III municipality, Mezam Division, of the North West Region of Cameroon within the 2022-2023 academic years. The target population of the study was made up of all form five students, teachers and heads of department (HODs), of Geography of all Grammar secondary schools in Bamenda III Municipality. Thus, the target population of 1160 was comprised of 10 Geography heads of department (HODs), 50 teachers of Geography and 1100 form five students of Geography. According to the Krejcie and Morgan (1970) table, 339 participants were deemed appropriate as the sample size of the study. It consisted of 10 heads of department (HODs), 44 teachers and 285 students. The simple random sampling technique was used to select students of Geography whereas the convenient sampling technique was used to select teachers and heads of department for Geography. Two structured questionnaires and an interview guide were used to collect data from the teachers, students and HODs respectively. Validity of the research instrument was measured using faced and content validity. The experts were given the instruments and all misconceptions and ambiguous questions/statements identified were amended. Cronbach alpha reliability coefficient for the students' questionnaire was 0.83 and for teachers' questionnaires was 0.81. Low use of instructional resources and high use of instructional resources were used to capture teachers' usability of instructional resources. Low level of instructional supervision and high level of instructional supervision were used to capture educational stakeholders' supervisory services. Students' academic performance was measured using their marks in regional mock examination. The data collected were analysed using descriptive and inferential statistics. Ethical issues like informed consent, anonymity and confidentiality were identified and considered.

Presentation of Results

The result of descriptive statistics is presented followed by inferential statistics result. The results are presented in accordance with the stated research questions and hypothesis that guided the study. The first research question sought to investigate the effects of teachers' instructional resources on students' academic performance in grammar secondary schools in Bamenda III Municipality. The results are presented in tables 1, 2, 3, 4 and 5.

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Table 1: Descriptive Statistics Showing Teachers' Use of Instructional Resources and Students' Academic Performance (Students' Responses)

Use of Instructional Resources		Statistics	Std. Error	95% Confidence Interval	
				Lower	Upper
Low use of Instructional Resources	N	234	7	221	246
	Mean	8.59	.48	7.94	9.67
	Std. Deviation	7.30	3.69	1.72	12.56
High use of Instructional Resources	N	49	7	37	62
	Mean	12.73	.32	12.12	13.40
	Std. Deviation	2.17	.17	1.78	2.48

Source: The Researchers, 2023

Table 1 indicates that majority of the students (234) asserted that there is low use of instructional materials in Geography classrooms. The table further indicates that, the mean performance of students in Geography classrooms where there is high use of instructional resources, is much higher (12.73), compared to that of those in classrooms where there is low use of instructional resources by teachers. Furthermore, teachers' high use of instructional resources in Geography also permits the learners to be more homogeneous as indicated by the lower standard deviation of 2.17.

Table 2: Descriptive Statistics Showing Teachers Use of Instructional Resources and Students' Academic Performance (Teachers' Responses)

Use of Instructional Resources		Statistics	Std. Error	95% Confidence Interval	
				Lower	Upper
Low use of Instructional Resources	N	34	2	29	39
	Mean	1.00	.00	1.00	1.00
	Std. Deviation	.00	.00	.00	.00
High use of Instructional Resources	N	7	2	2	12
	Mean	1.00	.00	1.00	1.00
	Std. Deviation	.00	.00	.00	.00

Source: The Researchers, 2023

Table 2 shows that majority of the teachers (34) indicated that they do not often use instructional resources to teach (Low use of instructional resources). The table further indicatesthat students' academic performance in Geography is low no matter the level of teachers' use of instructional materials.

Table 3: Descriptive Statistics Showing Teachers Use of Instructional Resources and Students' Academic Performance (HODs Responses)

s/n	Item	Frequency (%)	
		Yes (%)	No (%)

1a	***Do you think instructional resources are necessary in the teaching of Geography?***	10 (100%)	0 (0%)
b.	***If yes, why?***		
	It makes learning interesting and captures students attention	6 (60%)	4 (40%)
	It enhances critical thinking	4 (40%)	6 (60%)
	It promotes creativity	3(30%)	7 (70%)
	It enhances problem solving	3(30%)	7(70%)
	It facilitates the acquisition of skills	1(10%)	9(90%)
2a	***Do you think instruction resources are not available in Geography?***	10(100%)	0(0%)
b.	***If yes, what is the main reason for the in availability?***		
	Failure of school authorities to provide instructional resources	6 (60%)	4(40%)
	Some instructional resources are very expensive	2 (20%)	8(80%)
	It takes a lot of time to prepare some instructional resources	2(20%)	8(80%)
3a	***Do you think teachers' use of instructional resources influences students' academic performance in Geography?***	10 (100%)	0(0%)
b.	***If yes, how?***		
	Teachers' effective use of instructional resources increase students' academic performance in Geography	10 (100%)	0(0%)
4a	***Do teachers face challenges when using instructional resources in Geography lessons?***	10 (100%)	0(0%)
b.	***If yes, what are the main challenges?***		
	Instructional resources are inadequate	8(80%)	2(20%)
	Some teachers are unable to use those that are available e.g computers	8(80%)	2(20%)
	Some resources are out dated	1(10%)	9(90%)
	The few available resources are not always accessible	1(10%)	9(90%)
5	***What strategies can be used by educational stakeholders to overcome these challenges?***		
	School authorities should provide sufficient instructional resources to schools	8(80%)	2(20%)
	Seminars should be frequently organized on the integration of ICT in the teaching of Geography	8(80%)	2(20%)
	Out dated resources should be replaced by appropriate ones	1(10%)	9(90%)
	Available resources should be made accessible to all teachers	1(10%)	9(90%)

Source: Researchers, 2023

In table 3, all the HODs (10) said instructional resources are necessary in the teaching of Geography scoring 100%. When asked why they think instructional resources are necessary in the teaching of Geography, 6(60%) of the respondents opined that, it makes learning interesting and memorable; 4(40%) of them asserted that, it enhances critical thinking; 3(30%) of them attested that it promotes creativity and problem solving and only 1 (10%) said that, it facilitates the acquisition of skills. When asked if Geography instructional resources are always available, 10 (100%) of the respondents said no. Interestingly, 6 (60%) of them further explained that, instructional resources are not always available because of failure of school authorities to provide them while 2 (20%) of them mentioned that some of these resources are either very expensive or it takes a lot of time for them to be prepared. All 10 (100%) of them agreed that the effective use of

instructional resources increase students' academic performance. When asked for the main challenges that teachers faced as far as instructional resources are concern, 8(80%) out of the 10 HODs said instructional resources are inadequate and some teachers are unable to use those that are available while 1 (10%) of them opined that some resources are outdated and the few available resources are not always accessible. To overcome these challenges, majority (80%) of the HODs recommended that, the school authorities should supply sufficient instructional resources to schools and frequently organize seminars that focus on the integration of ICT in the teaching of Geography. Whereas, few (10%) of them proposed that outdated resources should be replaced by appropriate ones and available resources should be made accessible to all teachers.

Table 4: Regression Model Summary for Instructional Resources and Students' Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.352	.124	.110	5.851

Table 4 presents a model summary of the regression analysis. Specifically, the table shows that R-Square for the overall model is 0.124 with an adjusted R of 0.110. This suggests that 11% of the variations in students' academic performances can be accounted for by instructional resources.

Table 5: ANOVA Table of Regression Analysis for Instructional Resources and Students' Academic Performance

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	171.249	1	171.249	7.994	.003
	Residual	13188.617	281	46.935		
	Total	13359.866	282			

Table 5 presents the results of research hypothesis one. Generally, the ANOVA results show that F (1,281) = 7.994 with p = 0.003. This implies that, there is a significant effect of teachers' use of instructional resources on students' academic performance. Consequently, Ho_1 is rejected. It can therefore be concluded that teachers' use of instructional resources has significant positive effects on students' academic performance in grammar secondary schools in Bamenda III Municipality

Table 6: Regression Coefficients for Instructional Resources and Students' Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.530	1.508		4.331	.000
	TOTAL2	.241	.094	.113	2.410	.003

Table 6 presents the result of the regression coefficients. The regression equation is written as: SAP = 6.530 + 0.241 IR. This implies that, when there is zero use of instructional resources (IR), students' academic performance (SAP) is 6.530. When teachers increase their use of instructional resources by one unit, students' academic performance increases by 0.241. This increase is significant as indicated by the p-value of 0.003.

The second research question sought to investigate the effects of instructional supervision on students' academic performance in grammar secondary schools in Bamenda III. The results are presented in tables: 8, 9, 10, 11, 12 and 13.

Table 8: Descriptive Statistics Showing Instructional Supervision and Students' Academic Performance (Students' Responses)

Level of Instructional Supervision	Statistics		Std. Error	95% Confidence Interval	
				Lower	Upper
Low Level Instructional Supervision	N	224	7	211	236
	Mean	9.29	.50	8.56	10.40
	Std. Deviation	7.62	3.47	2.40	12.74
High Level Instructional Supervision	N	59	7	47	72
	Mean	9.34	.34	8.69	10.04
	Std. Deviation	2.59	.23	2.05	3.03

Source: Researcher, 2023

In table 8, majority (224) of the students of Geography indicated that the level of instructional supervision is low. The table further indicates that, the mean performance of students in Geography classrooms where there is high supervision is slightly higher (9.34) as compared to the situation in classrooms where there is low instructional supervision. The findings also reveal that, high use of instructional supervision in Geography permits the learners to be more homogeneous as indicated by the lower standard deviation of 2.59.

Table 9: Descriptive Statistics Showing Instructional Supervision and Students' Academic Performance (Teachers' Responses)

Level of Instructional Supervision	Statistics		Std. Error	95% Confidence Interval	
				Lower	Upper
Low Level Instructional Supervision	N	35	2	28	39
	Mean	1.00	.00	1.00	1.00
	Std. Deviation	.000	.000	.000	.000
High Level Instructional Supervision	N	6	2	2	13
	Mean	1.00	.00	1.00	1.00
	Std. Deviation	.000	.000	.000	.000

Source: Researchers, 2023

In table 9, majority (35) of the teachers of Geography indicated that the level of instructional supervision is low. From the findings, all the respondents asserted that students' academic performance in Geography remains low despite the level of instructional supervision.

Table 10: Head of Departments' Interview Responses on Instructional Supervision

s/n	Item	Frequency (%)	
		Yes (%)	No (%)
1a	***Do you think instructional supervision is necessary in the teaching of Geography?***	10 (100%)	0 (0%)
b.	***If yes, why?***		
	It provides opportunities for supervisees to update skills of instructional delivery.	3(30%)	7(70%)
	It enables teachers to better structure and prepare their lessons	2 (20%)	8(80%)
	It provides opportunities for schools to be effective	2(20%)	8(80%)
	It identifies strengths and weaknesses	1(10%)	9(90%)
	It tries to improve the learning process	1(10%)	9(90%)
2a	***Do you carry out instructional supervision as far as Geography is concerned?***	8(80%)	2(20%)
b.	***If yes, which supervisory practices do you always carry out?***		
	Checking of pedagogic documents: schemes of work, lesson notes, record of work and class attendance register)	6 (60%)	4(40%)
	Clinical supervision: Pre-observation conferences, classroom visitation and post-observation conferences	2(20%)	8(80%)
3a	***Do you think instructional supervision influences students' academic performance in Geography?***	10 (100%)	0(0%)
b.	***If yes, how?***		
	Effective instructional supervision increase students' academic performance in Geography	10 (100%)	0(0%)

4a	***Do you face challenges when supervising your teachers?***	10 (100%)	0(0%)
b.	***If yes, what are the main challenges?***		
	Teachers negative perception about instructional supervision	4(40%)	6(60%)
	So many administrative duties and shortage of teachers which make me to attend classroom lessons at the expense of instructional supervision	3(30%)	7(20%)
	Teachers mistrust of my intentions during supervision.	1(10%)	9(90%)
	Teachers refusal to accept corrections	1 (10%)	9(90%)
5	***How do you think these challenges can be overcome?***		
	HODs work load should be reduced so that they can have enough time to carryout instructional supervision	7(70%)	3(30%)
	Seminar should be organized to educate teachers on the need and importance of instructional supervision.	3(30%)	7(70%)

Source: Researchers, 2023

From table 10, when asked if instructional supervision is necessary in the teaching of Geography, 10 HODs accepted scoring 100%. 3 (30%) of the respondents explained that instructional supervision is necessary because it provides opportunities for supervisees to update skills of instructional delivery while 2 (20%) said it enables teachers to better structure and prepare their lessons. Another 2 (20%) of the respondents opined that instructional supervision provides opportunities for schools to be effective while 1 (10%) of them stated that it identifies the strengths and weaknesses and tries to improve the learning process. When the HODs were asked to identify the supervisory practices that they used constantly, majority 6(60%) of them mentioned checking of pedagogic documents while minority 2(20%) mentioned using clinical supervision and 2 (20%) stated that, they did not carry out any supervisory activity.

All 10 (100%) of them agreed that the effective supervision of instruction increases students' academic performance. When asked for the main challenges that teachers faced as far as instructional supervision are concern, 4(40%) out of the 10 HODs stated that teachers have a negative perception about instructional supervision while 3 (30%) of them indicated that administrative duties and shortage of teachers make them to attend classroom lessons at the expense of instructional supervision. Interestingly, 1(10%) of the respondents pointed out that they face challenges like their teachers mistrust ofthe supervisor's intentions during supervision and the teachers refusal to accept corrections. To overcome these challenges, majority (70%) of the HODs recommended that, their work load should be reduced so that they can have enough time to carryout instructional supervision. Whereas, few (30%) of them proposed that. seminar should be organized to educate teachers on the need and importance of instructional supervision.

Table 11: Regression Model Summary for Instructional Supervision and Students' Academic Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.027	.001	-.003	6.893

The model summary table shows that R-Square for the overall model is 0.001 with an adjusted R of -0.003. This suggests that 1% of the variations in students' academic performances can be accounted for by instructional supervision.

Table 12: ANOVA Table of Regression Analysis for Instructional Supervision and Students' Academic Performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.591	1	9.591	.202	.654
	Residual	13350.275	281	47.510		
	Total	13359.866	282			

The ANOVA table shows that F (1,281) = 0.202 with p = 0.654. This suggests that there is no significant effect of instructional supervision on students' academic performance. Consequently, Ho_2 was accepted. It can therefore be concluded that instructional supervision has no significant positive effect on students' academic performance in grammar secondary schools in Bamenda III.

Table 13: Regression Coefficients for Instructional Supervision and Students' Academic Performance

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.827	1.138		7.754	.000
	TOTAL2	.032	.072	.027	.449	.654

Table 13 presents the result of the regression coefficients. The regression equation is written as: SAP = 8.827 + 0.032 IS. This implies that, when there is zero use of instructional supervision (IS), students' academic performance (SAP) is 8.827. When instructional supervision increases by one unit, students' academic performance increases by 0.032. This increase is not significant as indicated by the p-value of 0.654.

Discussion of Findings

The analysis of data proved that instructional resources have a significant effect on students' of Geography academic performance in Bamenda III Municipality. This implies that, when teachers of Geography in Mezam Division use of

instructional resources are high, they tend to make learning interesting and capture students' attention hence, increasing students' academic performance. Otherwise, when teachers of Geography in Mezam Division use of instructional resources are low, they tend to make learning less interesting and less memorable thus, decreasing students' academic performance in Geography. These findings are strongly supported by Vygotsky (1978) theory as well as, Mugisha (2020) and Bulama et al., (2020) findings.

According to the findings, the effective use of instructional resources has a positive effect on students' academic performance in grammar secondary schools in Mezam Division. The reason given by HODs included the fact that, the students acquired skills during the teaching learning process. Other reasons included students' ability to think critically, their ability to be creative and to solve problems in real life. The findings for the positive effects that teachers' effective use of instructional resources has on students' academic performance is comparable to Mzinga & Onyango (2021) findings in which teachers' use of learning materials in Geography enhanced not only learners' creativity and innovativeness but their understanding of difficult topics and consequently, improved their academic performance.

In cases where teachers failed to effectively use instructional resources, HODs reported that the reasons for students' poor academic performance in Geography stemmed from reasons such as: failure of school authorities to provide instructional resources and the heavy cost involved in either buying or preparing some of the instructional resources. The findings of this study concurs with Okobia (2011) and Habiyambere (2015) that, in availability of instructional resources and the provision of inadequate resources by the school authorities were the main cause of poor academic performance of students in both public and private schools.

To reaffirm Okobia (2011) and Habiyambere (2015) arguments, the findings further show that some of the challenges faced by the teachers of Geography ranged from inadequate, out dated and inaccessible of instructional resources to some teachers not being able to use the available resources. It was realised that to overcome the challenges faced by teachers of Geography, school authorities should provide sufficient instructional resources to schools, they should constantly organized seminars that focus on the integration of ICT in the teaching of Geographyand they should replace out dated resources with new ones. Accessibility of available resources by all teachers was actually emphasized.

Despite the benefits of instructional resources, teachers of Geography in Mezam Division argued that whether the level of their use of instructional resources like visual, audio-visual and real objects is low or high, students' academic performance in Geography in Bamenda III Municipality remains low. Wamakko (2015) noted that, the use of visual, audio-visual and real objects by Geography teachers does not necessarily improve students' academic performance in Geography. From the above arguments it should be noted that, apart from instructional resources, there are other factors that may affect students' academic performance in Geography which are discussed in the following paragraphs.

The analysis from students' data proved that instructional supervision has some effects on students' of Geography academic performance in Bamenda III Municipality. This implies that, when there is a high level of instructional supervision of teachers of Geography in Mezam Division, they tend to update their skills of instructional delivery; they effectively prepare their lessons; they identify their strengths and weaknesses and they try to improve their learning on lesson delivery. This supervisory practice enhances students' academic performance in Geography. Alternatively, students' academic performance in Geography will decrease when the level of instructional supervision of teachers of Geography in Mezam Division is low. These findings are strongly supported by Wanjiku (2012) as well as Makau, Ronoh & Tanui (2016) findings.

Based on the findings, HODs have contributed to the professional development of teachers of Geography in grammar secondary schools in Mezam Division by checking their schemes of work, lesson notes, record of work and class attendance register. This supervisory practice by HODs in Mezam Division has a positive effect on teachers' preparation and implementation of Geography lesson and on students' learning of the subject. This finding is in line with Olatunji (2012) and Dangara (2015) findings that supervisory practices like checking of teachers' punctuality, checking of students' notes have significant positive effects on students' academic performance in secondary schools.

HODs have also used supervision practices like pre-observation conferences; classroom visitation and post-observation conferencesto educate teachers of Geography on skills of lesson planning, delivery and evaluation. This supervisory practice is actually in line with Gagne's nine events of instruction which stipulated that, learning would occur when students' progress through the nine levels of learning. This is actually the case in Geography classrooms in Bamenda III Municipality which make it possible for the teachers of Geography to use the skills acquired during supervision of instruction to enhance students' academic performance.

The findings further revealed that, instructional supervision has no statistical significant effects on students' of Geography academic performance in Bamenda III Municipality. This means that the teachers of Geography in Mezam Division have somehow not contributed to their students' academic performance. The teachers of Geography have continuously had either low or high level of instructional supervision yet, students' academic performance in Geography in Bamenda III Municipality remains low. Some possible explanations for the low performance of students include: teachers of Geography negative perception about instructional supervision, their mistrust of the intentions of their supervisors (HODs) during supervision and their refusal to admit their mistakes (or to accept corrections). Moreover, HODs pay less attention to classroom visitation and give more attention to administrative duties and teaching (due to the shortage of teachers of Geography in grammar secondary schools). This implies that, due to the absence of instructional supervision, teachers' knowledge of contemporary teaching practices that would enhance students' academic performance

has not improved. This findings are similar to Wanjiku (2012) conclusion that classroom visitation during lesson progress was rarely practised which affected both teachers and students performance.

Going by the findings, the HODs have summarized some of the measures to curb the challenges that they face as reducing their work load so that they can have enough time to carryout instructional supervision. The HODs also mentioned that seminars should be organized to educate teachers on the need and importance of instructional supervision. These measures entail inculcating into the HODs and teachers the importance of instructional supervision on teachers' and students' performance. Notably, these measures were highlighted in the work of Wanjiku (2012). Specifically, he found out that holding model teaching sessions and organizing programmes which catered for individual teacher differences were the most effective practices of instructional supervision.

Conclusion

There was a statistically significant effect of teachers' use of instructional resources on students' of Geography academic performance in Bamenda III Municipality. However, instructional resources were unavailable, inadequate, out dated and inaccessible by all teachers. Supervision of instruction was rarely or not effectively practiced andteachers' attitude towards supervisory practices was poor. Therefore, no statistical significant effects existed between instructional supervision and students' of Geography academic performance in Bamenda III Municipality.

Recommendations

1. In a situation where instructional resources are unavailable, inadequate, out dated and inaccessible by all the teachers; the school authorities should provide the instructional resources and educate teachers of Geography through seminars and workshops on how to use these resources. This should improve teachers' skills and enhance students' academic performance in Geography and other social science subjects.
2. The practice of observing teachers in class as they teach by supervisors had little or no effects on students' academic performance in Geography. Thus, seminars should be frequently organized to acquaint the supervisors and teachers with necessary skills needed for instructional supervision. This should enhance students' academic performance in Geography and other social science subjects.

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