

TEACHERS WELFARE AND STUDENTS ACADEMIC ACHIEVEMENT IN SCIENCES IN BORNO STATE COLLEGES OF EDUCATION

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ABSTRACT

The main purpose of the study was to examine welfare of teachers and students' academic achievement in Borno State Colleges of Education. A research question and null hypothesis were tested. A survey research design was employed for the study, covering an accessible population of 487 academic staff. The sample size of the study was 195 academic staff, using simple random sampling 40% of the population as the sample size for the study. These are academic staff from three Colleges of Education with sample size of 67, 76 and 52 respectively. Also results of students' academic achievement for the period of five years (2004/2005 – 2008/2009 academic sessions) was used in five courses; Biology, Chemistry, Mathematics, Physics and Integrated Science. The data collected through questionnaire and documentary evidence of results were analyzed using mean, standard deviation and Pearson correlation. The reliability coefficient of the instrument was established as 0.92 and this was considered high enough to accept the homogeneity of the instrument. The study revealed that there was fairly adequate provision of teachers' welfare in the colleges and there is significant relationship (at 0.05 level) between welfare of teachers and students' academic achievement. Based on these findings, it is recommended, among others, that Borno state Government should improve its provision of teachers' welfare in these colleges of education.

INTRODUCTION

Taal (1995) asserted that if teaching and learning are the beginning and the end of the educational process, then all matters that bear on the welfare, professional development and effectiveness of the teacher must be of prime importance.

In Nigeria, teachers salary; eating and recreational facilities; classrooms and offices; instructional facilities; transportation and accommodation, as well as teachers performance appraisal were fairly adequate. The teachers however, felt

that medical facilities were not available at all for their welfare. All these point to the fact that welfare of teachers is very germane in every school and any school that neglects teachers welfare, cannot get higher academic performance (Arikewuyo, 2000).

But, a lot has been said in Nigeria about teacher's remuneration which includes prompt payment of salaries, compensations and fringe benefits, etc. in a country like Nigeria, where the physiological needs that is the lowest order of human needs according to Maslow's Need

hierarchy, are yet to be fulfilled, it is not surprising that so much importance is attached to pay rise, and benefits that will satisfy these basic needs. That is the reason why money is still the best motivator in the society (Oduwaiye, 2005).

Closely connected with pay and fringe benefits is the status and prestige of teachers. Teachers in Nigeria suffer from low esteem as evident in the low status and prestige accorded to them in the society. In the society where only money is the answer, which teacher does not have, they are not socially recognized and therefore accounts for there low esteem. As long as the public image is uncomplimentary and the teacher's status in the society still does not match with its counterparts in other professions like medicine, law and banking, likely to achieve the highest level of job performance (Abdulkareem in Oduwaiye, 2005).

However, Cameron in Oduwaiye (2005) admits that even if a man's job satisfies his needs, he will not express satisfaction with it if he perceives some comparable job as satisfying his needs better or with less effort required. This is the reason why a teacher at the slightest opportunity of another job, jumps at it because a teacher compares his job with another job, finds that there is

no equity. When he finds there is discrepancy between the ratios of input to output, the greater the inequity and then the job satisfaction i.e. when a teacher computes the ratio of his inputs such as his educational qualifications, experience etc, to the outcome in terms of his pay and fringe benefits compared with other jobs, he feels cheated and dissatisfied. A worker who is not satisfied with his job cannot be efficient and effective.

Unlike many other professions, teaching is adversely affected by poor management practices such as bad leadership, inadequate supply of financial, human and material resources.

It is against this background that this study examined the relationship between welfare of teachers and students' academic achievement in Borno State colleges of education.

RESEARCH QUESTION

1. How does teachers' welfare affect students' academic achievement?

HYPOTHESIS

H₀₁: There is no significant relationship between welfare of teachers and students' academic achievement in

Borno state colleges of education.

science courses were used and analysis was carried out.

METHODOLOGY

Population

Research Design

The population for this study includes the 487 academic staff in the three Colleges of Education in Borno State. Table 1 shows the distribution of population of the study.

The study employed a survey method in which relevant data were collected from the respondents by the use of questionnaire, and academic achievement results of students for five sessions in five

Table 1: Distribution of Academic Staff in the Colleges of Education in Borno State.

S/No.	Institutions	No. of Academic Staff
1.	College of Education, Science and Technology, Bama.	168
2.	Kashim Ibrahim College of Education, Maiduguri.	190
3.	College of Education, Waka-Biu.	129
TOTAL		487

Source: Registry Department of the various Institutions, May 2010.

Sample and Sampling Techniques

tertiary institutions out of them three are Colleges of Education namely; College of Education, Science and Technology, Bama, which is located in North-Eastern part of Borno; Kashim Ibrahim College of Education, Maiduguri is located in Borno Central and College of Education, Waka-Biu is located in Southern part of Borno. These are

In this study, simple random sampling was used and 40% of the population was considered as the sample size (195). According to Nwana (1981), if a population reaches one hundred or more, then 40% of the population should be selected. Borno State has nine

the study areas. These institutions have sample size of 67, 76 and 52 respectively.

concerned with the management of welfare of teachers in relation to academic achievement.

Instrumentation

Two instruments were used in collecting data.

1. Self developed questionnaire titled: Welfare of Teachers and Academic Achievement Questionnaire (WTAAQ). The questionnaire consisted of 10 items that were structured. The structured type requires checking an item from a list of suggested responses. The questionnaire containing 10 items

The categories of responses were provided with 5 point rating Likert-type scale as given on weight, thus: Strongly Agree (SA) = 5; Agree (A) = 4; Undecided (U) = 3; Disagree (D); and Strongly Disagree (DA) = 1 respectively.

The split-half co-efficient of the scale was found to be 0.85.

For decision to be taken, the upper and lower limits of assigned value were respectively used thus;

Lower Limit	Upper Limit	
4.50 - 5.00	5	Strongly Agree
3.50 - 4.49	4	Agree
2.50 - 3.49	3	Undecided
1.50 - 2.49	2	Disagree
0.00 - 1.49	1	Strongly Disagree

Therefore, any item that yield mean above 3.50 was regarded as agree, item yield mean of 3.50 was regarded as undecided and any mean below 3.50 was regarded as disagree (Olagunye &

Awoyokun in Dapshima, 2010).

2. Result Collection Format (RCF) was used to obtain the final year National Certificate in Education (NCE) results of

students from 2004/2005 to 2008/2009 academic sessions in Biology, Chemistry, Physics, Mathematics and Integrated Science of the three colleges of education

were obtained from various academic offices for verification. The expected academic performance of each was coded as follow:

National Certificate in Education (NCE)

			KEY
Distinction	=	A (4.50-5.00)	70% and above
Credit	=	B (3.50-4.49)	60%-69%
Merit	=	C (2.40-3.49)	50%-59%
Pass	=	D (1.50-2.39)	45%-49%
Lower pass	=	E (1.00-1.49)	40%-44%
Fail	=	F (0.00-0.99)	39% and below.

This is in accordance with laid down standard of the National Commission for Colleges of Education (NCCE). For detail see Appendices A, B and C.

For this study, decision on null hypotheses (H_0) depends on the level of relationship between two variables at 0.05 level of significance. The level of relationship for the test either can be negligible, low, moderate or high by the Pearson correlation (r). Correlation Coefficient (r) could reveal both the magnitude and direction of relationship between the

variables. This means that a correlation coefficient could be high or low, positive or negative. A high correlation coefficient indicates a greater degree of relationship while a low correlation coefficient indicates a small degree of relationship. A positive coefficient indicates a direct relationship i.e. as one variable increase, the other also increase. A negative coefficient indicates an inverse relationship i.e. as one variable increase, the other decrease. When the correlation coefficient is zero, we say that there is no relationship between the variables (Hopkins and Glass, 1989).

RESULT

The result obtained in three colleges of education was presented in table 1.

TABLE 1: Mean Rating of Academic Staff on Welfare of Teachers in Relation to Students' Academic Achievement in Colleges of Education Bama, Maiduguri and Waka-Biu.

S/No.	Welfare of teachers in relation to students' academic achievement	\bar{x}_1 n=67	\bar{x}_2 n=76	\bar{x}_3 n=52	\bar{G}_x N=195	SD	Remark
1.	Government concern with maintenance of teachers to enhance academic achievement.	1.90	1.95	1.83	1.89	0.0620	Disagree
2.	The college maintains the teachers to enhance academic achievement.	2.73	2.76	2.65	2.71	0.0570	Disagree
3.	Teachers condition of service is considered by the authority of the college to enhance academic achievement.	2.20	2.36	2.00	2.19	0.1805	Disagree
4.	Incentives are provided to teachers in order to retain them in the college to enhance academic achievement.	1.90	1.91	1.87	1.89	0.0212	Disagree
5.	Teachers are promoted regularly in order to maintain them to enhance academic achievement.	3.39	3.34	2.65	3.13	0.3590	Disagree
6.	Allowances are been given to teachers to develop themselves through in-service training programme.	1.45	1.46	1.44	1.45	0.0670	Disagree
7.	Teachers are been sponsored to participate in workshops, seminars and conferences in order to develop themselves.	1.56	1.55	1.56	1.56	0.4618	Disagree
8.	Authority of the college consider teachers workload to enhance academic achievement.	1.66	1.67	1.58	1.64	0.0707	Disagree
9.	Government is supervising the teachers productivity in order to maintain them.	2.97	3.29	1.83	2.70	0.7835	Disagree
10.	The college is abiding to the rule governing the welfare of teachers to enhanced academic achievement.	2.12	2.15	2.04	2.10	0.0655	Disagree

Note: \bar{x}_1 = Mean Rating for Academic Staff in Bama
 \bar{x}_2 = Mean Rating for Academic Staff in Maiduguri
 \bar{x}_3 = Mean Rating for Academic Staff in Waka-Biu
n = Number of Sampled Academic Staff in each College
N = Total Number of Sampled Academic Staff

\bar{Gx} = Grand Mean Total
SD = Standard Deviation

Table 1 above shows that all the 10 items have been rated disagrees. The mean rated below 3.50 by academic staff. This suggests that there is no maintenance of teachers in the colleges of education in Borno state. This indicates that government is not concern with teachers' condition of service, incentives and promotions, allowances, participating in workshops, seminars, conferences, workload and productivity in Borno state colleges of education and affects students' academic achievement.

TABLE 2: Summary of Pearson Correlation between Welfare of Teachers and Students' Academic Achievement in Colleges of Education Bama, Maiduguri and Waka-Biu.

Variable	Number	Means	Std. Dev.	r	Relationship
WTR	195	2.22	0.81	0.91*	High
SAAR	195	2.84	0.89		

* Significant at 0.05 level

WTR: Welfare of Teachers Rating;

SAAR: Student Academic Achievement Rating

Table 2 shows that there is a moderately strong positive correlation between welfare of teachers and students' academic achievement in Borno state college of education. This implies that there is high positive relationship between welfare of teachers and students' academic achievement in Borno state colleges of education. Since the correlation is high (0.91) this indicates that a change in one variable is associated with the

Hypothesis 1

There is no significant relationship between welfare of teachers and students' academic achievement in Borno state colleges of education.

Data relevant to Hypothesis 1 for the three sampled colleges of education are tabulated in table 2.

change of similar, but not equal degree in the other according to Hopkins and glass (1989).

DISCUSSION

The findings of the study are discussed in relation to the issue raised in the research question and hypothesis. The issue is the welfare of teachers in relation to students' academic achievement in Borno state colleges of education. The findings

of the study revealed that there is poor maintenance of teachers in the colleges which were rated disagrees by all the three groups of respondents (see table 1). This implies that teachers' welfare in the colleges are not provided adequately. And hence affect academic achievement in the colleges (see appendices A, B and C). Also based on the hypothesis tested shows that there is a moderately strong positive correlation between teachers' welfare and students' academic achievement in Borno state college of education. This implies that there is high positive relationship between welfare of teachers and students' academic achievement in Borno state colleges of education. Hence there is urgent need to provide teachers' welfare in the colleges of education in order to enhance academic achievement.

The finding of this study is in line with Fagbamiye (2000) who noted that Poor students' performance from the recent past had been directly linked with teachers turnover and dissatisfaction and also unhappy employees are unlikely to a productive workforce. In the past, teachers are reduced to objects of pity and so on through delayed or unpaid salaries and other negative comments about the teachers. This has been responsible for teachers'

low esteem. Even if the government is realizing the effect of this low education in the country and while the government is working to uplift teacher's status, unfavourable environment like dilapidated buildings, poorly furnished classroom and lack of instructional materials continue to erode teacher's zeal for work. These and many others contributes to teacher's low morale and dissatisfaction. Whether it is the teachers job satisfaction that brings about good teaching performance or vice visa, it is important to know that before there can be good performance on any job, teaching inclusive, the employees need to be motivated towards the job.

SUGGESTIONS AND CONCLUSION

Based on these empirical findings, the following suggestions were made to improve the students' academic achievement in colleges of education.

The Borno State Government should improve teachers', condition of service, incentives should be provided in the colleges of education, and also there is need to retain and motivate the teachers in the colleges to facilitate academic activities.

The study established the fact that teachers' welfare in colleges of education have been found fairly motivated and have fairly affect academic achievement in the colleges of education in Borno State. And also there is significant relationship between welfare of teachers and students' academic achievement in Borno State colleges of education, based on the research question and hypothesis tested using mean, standard deviation and Pearson correlation.

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Teachers Welfare and Students Academic Achievement in Sciences in Borno State

APPENDIX A

Number of Students Admitted and those Graduated in Five Departments of College of Education, Science and Technology, Bama between 2004 and 2009

Year	Department	Students admitted	Students graduated	Distinction	Credit	Merit	Pass	Lower pass	Fail	% graduated	% failed
2004/2005	Biology	222	98	00	25	47	25	01	124	44.1	55.9
	Chemistry	44	24	02	08	10	04	00	20	54.5	45.5
	Physics	38	14	00	02	08	04	00	24	36.8	63.2
	Mathematics	29	25	00	08	12	05	00	04	86.2	13.8
	Integrated science	35	32	00	12	13	06	01	03	91.4	8.6
2005/2006	Biology	292	178	00	52	99	26	01	114	61	39
	Chemistry	65	46	04	20	16	06	00	19	70.8	29.2
	Physics	32	27	00	04	17	06	00	05	84.4	15.6
	Mathematics	35	30	01	10	09	10	00	05	85.7	14.3
	Integrated science	39	30	02	10	17	01	00	09	77	23
2006/2007	Biology	107	90	00	10	57	22	01	17	84.1	15.9
	Chemistry	59	20	01	03	07	09	00	39	33.9	66.1
	Physics	21	17	01	05	03	08	00	04	81	19
	Mathematics	66	31	01	15	11	04	00	35	47	53
	Integrated science	33	30	00	07	17	06	00	03	91	9
2007/2008	Biology	133	115	03	32	60	20	00	18	86.5	13.5
	Chemistry	84	69	08	19	31	10	01	15	82.1	17.9
	Physics	18	16	00	01	13	02	00	02	89	11
	Mathematics	61	46	06	18	15	07	00	15	75.4	24.6
	Integrated science	51	38	02	09	22	05	00	13	74.5	25.5
2008/2009	Biology	138	51	01	11	30	09	00	87	37	63
	Chemistry	40	21	01	05	11	04	00	19	52.5	47.5
	Physics	33	14	02	05	06	01	00	19	42.4	57.6
	Mathematics	46	38	05	09	20	04	00	08	82.6	17.4
	Integrated science	84	20	04	07	07	02	00	64	23.8	76.2
Total		1806	1121	45	307	558	206	05	685		

Source: Academic office, Record Department College of Education, Science and Technology, Bama, May 2010.

APPENDIX B

Number of Students Admitted and those Graduated in Five Departments of Kashim Ibrahim College of Education, Maiduguri between 2000 and 2009

Year	Department	Students admitted	Students graduated	Distinction	Credit	Merit	Pass	Lower pass	Fail	% graduated	% failed
2004/2005	Biology	80	58	05	03	08	17	25	22	72.5	27.5
	Chemistry	49	23	01	04	07	04	07	26	46.9	53.1
	Physics	08	02	00	01	01	00	00	06	25	75
	Mathematics	20	07	01	02	01	02	01	13	35	65
	Integrated science	25	20	01	05	07	05	02	05	80	20
2005/2006	Biology	74	46	03	04	14	18	07	28	62.2	37.8
	Chemistry	57	33	02	05	10	13	03	24	57.9	42.1
	Physics	26	17	01	03	06	05	02	09	65.4	34.6
	Mathematics	56	32	00	02	11	16	03	24	57.1	42.9
	Integrated science	23	16	01	03	04	04	04	07	69.6	30.4
2006/2007	Biology	98	13	01	02	09	01	00	85	13.3	86.7
	Chemistry	41	05	00	00	00	03	02	36	12.2	87.8
	Physics	20	04	00	00	03	01	00	16	20	80
	Mathematics	57	04	00	00	02	02	00	53	7.0	93.0
	Integrated science	21	10	01	04	03	02	00	11	47.6	52.4
2007/2008	Biology	101	29	01	08	18	02	00	72	28.7	71.3
	Chemistry	35	13	00	02	09	02	00	22	37.1	62.9
	Physics	17	02	00	01	01	00	00	15	11.8	88.2
	Mathematics	47	11	01	03	03	04	00	36	23.4	76.6
	Integrated science	19	15	00	07	03	05	00	04	79	21
2008/2009	Biology	122	22	00	08	06	08	00	100	18	82
	Chemistry	44	13	00	04	07	02	00	31	30	70
	Physics	12	02	00	01	01	00	00	10	16.7	83.3
	Mathematics	34	06	00	02	02	02	00	28	17.6	82.4
	Integrated science	16	13	00	01	07	04	01	03	81.3	18.7
Total		1102	416	19	75	143	122	57	686		

Source: Academic office, Record Department Kashim Ibrahim College of Education Maiduguri, May 2010.

APPENDIX C

Number of Students Admitted and those Graduated in Five Departments of College of Education, Waka-Biu between 2004 and 2009

Year	Department	Students admitted	Students graduated	Distinction	Credit	Merit	Pass	Lower pass	Fail	% graduated	% failed
2004/2005	Biology	81	49	00	04	32	13	00	32	60.5	39.5
	Chemistry	28	14	00	04	07	02	01	14	50	50
	Physics	13	06	01	00	06	00	00	07	46.2	53.8
	Mathematics	15	07	00	02	05	00	00	08	46.7	53.3
	Integrated science	18	10	00	01	06	02	01	08	55.6	44.4
2005/2004	Biology	134	76	00	13	44	19	00	58	56.7	43.3
	Chemistry	77	35	01	10	16	07	01	42	45.5	54.5
	Physics	42	14	00	03	08	02	01	28	33.3	66.7
	Mathematics	44	15	00	03	08	03	01	29	34.1	65.9
	Integrated science	48	20	00	03	10	05	02	28	41.7	58.3
2006/2007	Biology	216	172	01	20	87	63	01	44	79.6	20.4
	Chemistry	33	20	01	08	07	04	00	13	60.6	39.4
	Physics	44	32	00	03	15	12	02	12	72.7	27.3
	Mathematics	30	07	01	02	03	01	00	23	23.3	76.7
	Integrated science	50	31	01	02	07	18	03	19	62	38
2007/2008	Biology	134	134	02	21	67	42	02	00	100	00
	Chemistry	34	25	00	07	04	11	03	09	73.5	26.5
	Physics	22	15	01	02	06	05	01	07	68.2	31.8
	Mathematics	34	16	01	02	06	07	00	18	47.1	52.9
	Integrated science	35	21	02	01	07	06	05	14	60	40
2008/2009	Biology	213	187	01	30	89	65	02	26	87.8	12.2
	Chemistry	61	41	01	03	24	12	01	20	67.2	32.8
	Physics	23	06	01	00	02	02	01	17	26.1	73.9
	Mathematics	47	26	01	02	10	06	07	21	55.3	44.7
	Integrated science	42	23	01	03	06	11	02	19	54.8	45.2
Total		1520	1004	17	149	482	318	38	516		

Source: Academic office, Record Department College of Education Waka-Biu, May 2010.