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Staff, infrastructure, amenities and academic achievements of the high schools of Chipata District, Eastern Province of Zambia

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ABSTRACT

School plays major role in the society for the Education, Economy, Environment, formation of culture and manpower to nation. The School which has got sophisticated and produces the good result then its attracted many students. The same not much facility, poor quality of teaching and poor results of examinations is less attractive. In this context staff, infrastructure and amenities are equally contributes for the better study environment and academic achievements too. The African country of Zambia has taken for the study as one of the researchers was in the study area from April to Sep, 2011. The sample of 20 high schools was taken for this study using stratified random sampling method. The questionnaire was converted into numerical data state in order to analyze the status of high schools. The high schools were analysed with reference to staff, infrastructure, amenities and achievements. The data was analyzed by using SPSS software. The appropriate results were drawn to indicate the deficiencies and suggestions to improve is to address to the school inspectors, Educational officers to take appropriate step to improve the quality of education in this country.

Key Words: High school, staff, infrastructure, amenities, academic achievements and Zambia.

INTRODUCTION

In Zambia basic education is divided into three levels: lower basic (grades 1-4), middle basic (5-7), and upper basic (grades 8-9). The system is currently in transition from seven years of primary education (presently referred to as the middle basic level) to nine years of basic education. Until recently, most secondary schools still offered education at grades 8 and 9 (the upper basic level) in addition to three years of high school. Access to secondary education is today highly inequitable across income groups, gender, social groups, geography and region.

Classrooms are viewed as places where rich discourse should take place as students engage in their work and explore problems with meaningful contexts. Schools supposed to be a place where children get all round of knowledge including health, physical growth, mental health community life and social skills.

It is widely recognized need for change, the Dakar Framework for Action adopted a *World Declaration on Education for All* (EFA) in 2000, which affirmed the notion of education as a fundamental right and established the new millennium goal to provide every girl and boy with primary school education by 2015. EFA also clearly identified Inclusive Education as one of the key strategies to address issues of marginalization and exclusion. The fundamental principle of EFA is that all children should have the opportunity to learn. The fundamental principle of Inclusive Education is that all children should have the opportunity to learn together.

During the period extending from the past to the present day, economists, social scientists, and politicians have suggested that education has a crucial role in the development of a country. Social and economic developments of a country depend directly on the education levels of workforce [8].Today, there is a global and intense competition in the marketplace. In this competitive world, in order to meet the expectations of the business, quality of education provided for the adolescences is becoming increasingly important [14]. In order to make the future better than today, educational authorities explore tools to assess the quality of the educational outcome by measuring the effectiveness of the components of educational systems, and search the ways to make educational reforms.

After all these all efforts taken by the government it would not reached the goal completely due unplanned, unprecedented and irregularities of authorities. In the global village Zambia has to maintain the standards in order to fulfill the need of the present student community. Herein to examine the current status of high schools in chipata district.

Objectives of the study

1. To study the staff availability in the high schools.
2.To study the infrastructure availability in the high schools.
3. To study the amenities of the high schools.
4. To find out the difference between government and private schools, rural and urban schools and girls and boys school.
5. To study the difference between the variables i.e government and private schools, rural and urban schools, schools run by the Zambian and foreigner and girls and boys school.

Statement of the problem

Women society contributes maximum level in formation of culture through teaching good moral values and providing better environment to learn about the society to their children. When children live with both parents they grow well and learn many things with both support but lacking any one of which may have psychological impact on their development. The same when the lady lives alone without husband has to face some social problems like moving alone in the night, talking with other men and leaving the children at home going to work will lead the children to divert in to different attitudes. The case study of Zambia is peculiar in this respect and more prevalent too. Nation's responsibility is to serve the society and society is for a family development which is primarily unit of the society. So it is better if adequate measures have taken to eradicate this issue to save and preserve the future generation and culture.

Resources available to the students in schools can influence students' achievement. Various indicators such as pupil-teacher ratios, expenditure per pupil, teacher salary and educational level, availability of teaching materials can measure these resources. Although certain teaching strategies can be effective even for very large classes, students are often unruly in these settings. Moreover, teachers in large classes tend to focus more on rote learning, rather than on problem solving skills [10]. Another resource of a school necessary for achieving quality is the intensity of operation. The length of the term indicates how intensively schools are operated but can also be a signal of how importantly school education is perceived in a society.

Actual class size may be larger than measured pupil-teacher ratios because of teacher absenteeism and specialization. On the other hand, class sizes would be lower than observed pupil-teacher ratios in multiple-shift systems (where students attend school on double or triple shift rather than at the same time). Some researchers argue that measured pupil-teacher ratios are reasonable approximations of actual class sizes, especially, at primary schools [6]. Education quality is much higher when the pupil-teacher ratio is much lower and this improves students' achievement.

The importance of human and material resources in achieving better schooling outcomes, including such factors as school infrastructure, class size, teacher experience and qualifications and availability of instructional materials have emphasized largely in low-income countries [3].

Double-shift schooling provides certain advantages and opportunities. It can broaden school access and contribute to social equity since it offers the opportunity for students who would not otherwise be able to attend school to receive a formal education. Class sizes may be smaller since student populations are divided over two shifts, and where there is a scarcity of teachers, it allows one faculty to teach two sets of pupils. Although teachers would work twice as hard, they would also earn more salary (however not a double salary). In cases where families depend on the labour of their school-age children for sustenance, double-shift schooling with its short hours, allows students who would otherwise not be permitted to attend school the time to work and contribute to family incomes and domestic responsibilities [4].

In the rural-based schools the problem had gender dimensions, in that women are acutely under-represented in school headship. The male head teachers expressed grave concern about the gender imbalance of teaching staff, attributing this to women's unwillingness to take up teaching posts in deprived areas. This, they lamented, 'has wider effects on girls' attitudes to learning. Some girls felt that it wasn't worth studying hard or even coming to school because the female role models they encountered in the villages were either farmers, seamstresses or fishmongers and housewives who 'give plenty birth' [9].

In several African countries, an increase in enrolment has led to very high pupil teacher ratios (reaching up to 80:1 or even higher), which have had a significant negative impact on quality. Together with irregular pay, these high ratios are a major cause of teacher absenteeism [12].

There is a trade-off between improved access to and quality of education.7 Increasing access to education must be accompanied by more schools, classrooms, teachers and textbooks. According to a World Bank study [12] the building of classrooms and provision of school supplies (such as textbooks) are cost-effective instruments that contribute to higher enrolment and better learning outcomes (Kingdon, 2005).

The quality of education depends on the number of teachers, schools, etc. Private schools seem more effective in imparting learning to students than public schools. In many developing (as well as developed) countries, private schools show better results. However, for a fair comparison, one needs to control for differences in the number (and quality) of teachers, regional differences and differences between parents and pupils. Several studies found that the observed differences in learning and learning achievement disappear after controlling for these other factors [5]. A specific characteristic of basic education in Zambia is the important role of community schools. These schools were set up by local communities and not by the government.

In Ghana quality in education becomes more problematic when quality is conceptualized in terms of a particular aspect of education because as Dare [2] observes, 'all the elements associated with educational quality are interrelated. A serious defect in one element is likely to have implications for quality in others'. Moreover, questions regarding quality may be posed about any important aspect of the educational system: infrastructure, school buildings, administration, leadership, management, teacher training, educational materials, teaching and student achievement.

A large number of these schools have wattle-and-daub constructions and temporary provisions. Classrooms and water and sanitation facilities are of poor quality. Teaching and learning materials are generally inadequate. Pupils often sit on the floor. The vast majority of teachers are unqualified [1]. Teachers are mostly volunteers; young men and women with grade 9 or grade 12.

The rationale behind this transition was that in a country where most secondary education was provided by boarding schools, it would be more feasible to meet the objective of nine years of basic education for all if each of these nine years was actually provided at local basic schools[13]. Though every pupil is required to complete a full nine-year course of basic education, the lack of facilities at the upper basic level (grades 8 and 9) has forced the ministry to limit the number of pupils admitted to grades 8 and 9. Which pupils are admitted to the upper basic level is decided based on their exam results at grade 7. Only the pupils with the best examination scores are admitted to grade 8. The MoE has announced its intention to abolish the grade 7 examination in 2010[7].

Tamilenthi.S and Lalhmasai Chuaungo [11] study reveals that there is significant relationship between the urban and rural teachers. Therefore it is an alarming result that the policy makers, teachers, Head masters and education department have to take suitable action to improve the rural teachers in supplying of adequate materials. In general arranging periodical professional development programs, refresher courses and pooling the staff with subject wise experts for the seminar and workshops will help them to acquire the new skills and new technique to adopt and also if the government makes policy for encourage and allowing to take up higher degrees with paid leave specially aided and private schools concern.

MATERIALS AND METHODS

The research design

Stratified random sampling method was adopted in this study.

Sample

The present study area covers the high schools of Chipata District, Eastern Province of Zambia. There are numbers of schools were found in this area but the high schools are limited and hence it is limited to 20 samples from Chipata district, Zambia is taken for the study.

Tools

The following tool was used in this study.

The questionnaire consist of 20 questions in 4 sections in each section 5 questions which was constructed and validated by the investigator.

The school profile data sheet was used to collect information about Name of the school, Origin of Management ,Locality ,Year of established, Number of classes, Number of students, Number of teachers ,Teachers pay ,Type of management, Students composition, Results in Grade -9 (in%) Last 5 yrs and Results in Grade 12 (in %) Last 5 yrs.

Data analysis

Descriptive statistics were used to describe the sample with reference to the variables taken for the study. Statements were converted in to simple statistical tables. In differential analysis the significance of difference between groups was studied using‘t’ test.

Analysis of the data

The analysis of the data in this chapter is based on the questionnaire collected from the high schools have been summarized in the following tables with reference to staff, infrastructure ,amenities and academic achievement.

Major problems found in the schools are given for selected schools

Sl.No	Name of the school	**No of students**	**No of teachers**	**Staff deficiency**	**Untrained Teachers**	**Untrained counselling teacher**	**Un trained physical education teachers**	**No laboratory facility**	**No separate staff room**	**No Hostel facility for students**
1	Chongalolo high school	640	40	-	-	-	-	X	-	-
2	Muzipasi high school	390	20	-	X	X	-	-	X	X
3	Mumbwe high school	620	18	-	-	-	X	-	-	X
4	Chipata day school	2,214	41	-	-	X	X	-	-	X
5	Gondar day school	1226	31	-	-	X	-	-	-	-
6	Chizongwe technical high school	2,143	38	-	-	X	-	-	-	X
7	Anoya boys high school	1,415	37	-	-	-	X	-	-	X
8	Hill side girls high school	2,421	23	X	X	-	-	-	-	X
9	St .Margret high school	341	16	-	-	-	X	-	-	X
10	Petauke Secondary school	2,621	36	-	-	X	-	-	-	-
11	Memo Boarding school	514	14	-	-	-	-	-	-	-
12	Lundazi Secondary school	820	20	-	-	-	X	-		-
13	Lunezi Day high school	920	35	-	-	X	-	-	-	-
14	Faith Christian academic high school	614	15	-	X	X	-	-	-	X
15	Chasale day secondary school	541	22	-	X	X	-	-	-	-
16	Magwelo High school	1496	23	-	-	X	-	-	-	-
17	Mwalu private school	486	22	-	X	X	X	-	-	-
18	St.Mary’s Junior seminary	125	10	-	-	X	-	-	-	X
19	Chandiza High school	1265	32	-	-	X	X	-	-	X
20	Chipata Christian School	482	21	-	-	-	X	X	-	-

Sl.No	Name of the school	Teachers –students ratio	No free extra coaching class	Not constant high result	No periodical medical check up	No tuck shop/Canteen / stationary store	Not maintained the same results constantly	Results are not same with science subjects	Students not get admitted in professional courses	No special achievement at all in any level	No transport facility for the students	Non availability of staff quarters
1	Chongalolo high school	1:16	-	-	X	-		X	X	X	X	-
2	Muzipasi high school	1:20	-	-	X	-	-	X	X	X	-	-
3	Mumbwe high school	1:34	-	-	-	-	-	-	X	-	-	-
4	Chipata day school	1:54	-	-	-	-	-	-	X	X	-	-
5	Gondar day school	1:40	-	-	-	-	X	-	-	-	-	X
6	Chizongwe technical high school	1:64	-	-	-	-	-	-	-	-	-	X
7	Anoya boys high school	1:38	-	-	X	-	-	-	-	-	-	X
8	Hill side girls high school	1:105	-	-	-	-	-	-	X	-	-	-
9	St. Margret high school	1:21	-	-	-	-	-	-	X	-	-	-
10	Petauke Secondary school	1:73	-	-	X	-	-	-	X	-	-	-
11	Memo boarding school	1:36	-	-	-	-	-	-	-	-	-	-
12	Lundazi Secondary school	1:41	X	-	-	-	-	-	-	-	-	-
13	Lunezi Day high school	1:26	-	-	X	-	-	-	-	X	-	X
14	Faith Christian academic high school	1:41	-	-	X	-	-	-	X	X	-	X
15	Chasale day secondary school	1:25	X	-	-	-	-	X	X	X	-	-
16	Magwelo High school	1:65	X	-	X	X	-	X	X	-	-	X
17	Mwalu private school	1:22	-	X	-	-	-	-	X	-	-	X
18	St.Mary's Junior seminary	1:13	X	X	-	X	-	-	X	-	-	X
19	Chandiza High school	1:40	X	X	-	-	-	-	X	-	-	-
20	Chipata Christian School	1:30	X	-	X	-	-	X	X	X	-	X

Table 1: School staff resource related deficiency with reference to high schools of Chipata Zambia.

SL	Statement	Respondents	
		No	In (%)
1	Schools have untrained teachers (Diploma/Degree in education)	5	25
2	Schools having Untrained Counselling teachers. (Diploma/Degree in counselling)	12	60
3	Schools have got Un trained physical education (Diploma/Degree) teacher.	8	40

In terms of teachers resource from the respondents revealed that the untrained teachers contribution is 25%, Untrained counselling teachers is 60% and the Schools having untrained physical education teacher is 40% .

Table 2 Non availability of infrastructure with reference to high schools of Chipata Zambia.

SL	Statement	Respondents	
		No	In (%)
1	Schools have no laboratory for Physics, chemistry, Biology and computer lab.	2	10
2	Schools have no staff quarters.	9	45

In concern with infrastructure in the schools non availability of laboratory is 10% and schools have no staff quarters is 45 %.

Table 3. Non-availability of School amenities with reference to high schools of Chipata, Zambia.

SL	Statement	Respondents	
		No	In (%)
1	Schools have separate hostel facility for the boys and girls.	10	50
2	Schools have Tuck shop/Canteen/Stationary store for the students in concessional rate.	2	10
3	Schools have periodical free medical check-up.	8	40
4	Schools have free extra coaching class.	6	30

The Schools have no separate hostel facility for the boys and girls is 50% and Schools do not have Tuck shop/Canteen/Stationary store for the students in concessional rate is 10%. Schools have no periodical free medical check-up is 40% and Schools do not have free extra coaching class is 30%.

Table.4. School academic achievements with reference to high schools of Chipata, Zambia.

SL	Statement	Respondents	
		No	In (%)
1	Special achievements in district level/ Province level / National level.	7	35
2	Schools get same level of results in science and other than the science subjects.	5	25
3	Students get admitted / qualified every year for medical/ Engineering / nursing.	14	70

The analysis of the questionnaire revealed from the school academic achievement is that no achievement at any level is only 35%,The schools do not get same level of results in science and other than the science subjects is about 25%.Besides these, the students do not get admitted / qualified every year for medical/ Engineering / Nursing is 70%.

Table : 5. Type of management, Locality and Composition of students with reference to high schools of Chipata, Zambia.

Variables	Group	N	Mean	Std. Deviation	t –Value	p
Type of management	Government	11	24.09	1.51	1.959	0.065 NS
	Private	09	26.0	2.78		
Locality	Rural	07	25.42	1.81	0.660	0.517 NS
	Urban	13	24.69	2.59		
Students composition	Single sex	05	24.2	1.643	0.825	0.420 NS
	Both sex	15	25.2	2.512		

**significant at 0.05 level*

1)The ‘t’ value is not significant at 0.05 level for government and private schools. It is concluded that the government and private schools do not differ in the school status.

2)The calculated ‘t’ value is not significant at 0.05 level of significance. It is concluded that the rural and urban schools do not differ in the school status.

3) The ‘t’ value is not significant at 0.05 level for the girls and boys schools. It is concluded that the single sex and both sex schools do not differ in the school status.

Correlation between Schools results of Grade-9 and Grade- 12

Table : 6 Showing the correlation between the Schools results of Grade-9 and Grade- 12 with reference to high schools of Chipata, Zambia

Variables	*N*	*r*	*p*
Grade -9	20	***0.41***	***Positive medium correlation***
Grade-12			

The correlation r= 0.41, Hence there is positive medium correlation between the results of Grade -9 and Grade -12 results of the high schools in Zambia.

Findings

The major findings from the study as follows:

1) The teaching staff mostly not trained and those trained also just got degree or diploma but outdated content and methodology, which is not suitable for the present society and for, large number of students.

2) Almost all the government high schools have adequate infrastructure except the computer lab. Hence students are ill literate in respect of computer usage which is base for the higher studies.

3) Except the required space for the class room, lacking is equipments like sports items, recreational items for boarding students. The same canteen/restaurant and stationeries stores run by the school and outsiders there is no difference in price. Hence these all fund rising motto and not actually beneficial to the students.

4) It is progressive in the part of school achievement but no special achievements or special target has taken by the institution, the same institution is trying maintaining the status. Most of the institution is not focussed for professional course orientation which led the students unfit to choose or opt the professional studies which may be great drawback of the high schools. This is the cause of monotonous type of teaching, no creativity and mentally compelled to read for examinations only and not applying in practical which cause to lose their memory what they studied.

5) The results between Grade -9 and Grade-12 shows that there is positive medium correlation (r= 0.41), which reveals that the teachers of Grade-9 and Grade 12 are not same methodology adopting in teaching their class.

6)The selected government schools which have got all facilities and produces good results too, but lack of teaching faculty or deficiency of teachers which led teacher-student ratio is very high(varies 1:60 to 1:100).

Recommendations

1) The government should encourage the private sectors and missionaries to invest on education. Collaborative projects should be carried out with government and private in order to reduce the burden of the government.

2) The government should strictly enforce the private schools to follow the rules and regulations accordance with government. The schools which meet the required standard may be allotted the fund to pay the teacher's salary so as to maintain the qualified teachers and also encourage the private schools to take part actively in implementing new policies.

3) Universities should organize the short term courses and refresher courses contently to the school teachers. The resource centers should be established to guide the teachers teaching methodology besides monitoring the quality, which also help the school inspectors to take right decision.

4) School Establishment Committee (SEC) should be formed with the composition of School head, Government nominee and community heads so that the public contribution also will be there (expected) in construction of building (labour, local materials, night security and land donation).
5) To avoid teaching staff deficiency the policy should be made that, all the graduates and diploma holders of education should work at least one year to the schools specially where the schools lack of teachers and rural schools so as to get experience as well the contribution of staff resource to the government. Those staff may be called as "*Teacher trainee*" who may be paid fixed pay (only basic pay or stipendiary) and should be issued "*Experience certificate*". This should be made mandatory to enter in the teaching profession.

CONCLUSION

The challenge of educating these students requires new capacities for schools and new orientations for the educators who make decisions that directly or indirectly influence students' lives and achievements. In present scenario high students enrolment in some schools make students and teachers ratio is inappropriate. It is also identified that for mass education or for high number of students educational technology has a place to satisfy the teachers' requirements. Educational Technology in the class room to achieve the competency, so that the Technology assists to improve the comprehension of the students through participatory approach. Creating enthusiasm on using educational technology is necessary to decrease the drop-out and stagnation with the help of using educational technology may acquire fruitful success and self learning can be improved through educational technology and reduce the boredom of the students in learning process.

To implement this educational technology, teachers must be trained and the resource to be supplied which also will help in reduction of staff requirement.

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