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ABSTRACT

PERCEPTIONS OF TEACHERS ON SYSTEMIC FACTORS RELATED TO
STUDENT PERFORMANCE IN SEVENTH-DAY ADVENTIST
SECONDARY SCHOOLS IN ZIMBABWE

by

Sophie Masuku

Chair: Hinsdale Bernard

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: PERCEPTIONS OF TEACHERS ON SYSTEMIC FACTORS RELATED TO STUDENT PERFORMANCE IN SEVENTH-DAY ADVENTIST SECONDARY SCHOOLS IN ZIMBABWE

Name of researcher: Sophie Masuku

Name and degree of faculty chair: Hinsdale Bernard, Ph.D.

Date completed: December 2009

Problem

The Regional officer of Matabeleland North region in Zimbabwe was concerned over the poor student pass rates in these regions. The Education Director of the Zimbabwe Union Conference of Seventh-day Adventists also voiced the same concern about the poor student pass rates, especially in the West Zimbabwe Conference, which is comprised of Matabeleland North, Matabeleland South, and Bulawayo regions. The purpose of this study was to investigate the perception of teachers on student support and student factors that influence the academic performance of students attending Seventh-day Adventist secondary schools in Zimbabwe, focusing mainly on school, community, and student factors.

Method

I developed an instrument that was distributed to all the teachers in the 25 Seventh-day Adventist secondary schools in Zimbabwe. Twelve schools ended up participating in the study and 164 questionnaires were returned. Descriptive statistics were used to investigate the factors perceived to be manifested in the schools. A descriptive study was also done to analyze the responses according to the different regions and to investigate the factors that were manifested and not manifested in each region. One-way analysis of variance and *t* tests were used to determine demographic differences in the perception of teachers concerning systemic factors that affect student performance in the Seventh-day Adventist schools.

Results

The student support factors related to student academic performance perceived by the teachers to be manifested in the schools were: good curriculum, positive school climate, teacher professional development, administrative support, and teacher support factors. Teachers also perceived that the students were well disciplined and that they were well motivated to learn. They felt that there was no community support and that the transportation system was poor. Teachers perceived that the students were lacking in physiological needs.

Conclusions

The teachers in the Seventh-day Adventist schools in Zimbabwe perceive that the transportation and community support are lacking in the schools. The regions with the lowest student pass rates also had the least acceptable variables for student support and

student factors. This study is important for the Education Director of the Zimbabwe Union Conference of the Seventh-day Adventist organization and also for the Ministry of Education, which have to devise ways to improve the academic performance of all students in Zimbabwe.

Andrews University

School of Education

PERCEPTIONS OF TEACHERS ON SYSTEMIC FACTORS RELATED TO
STUDENT PERFORMANCE IN SEVENTH-DAY ADVENTIST
SECONDARY SCHOOLS IN ZIMBABWE

A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

Sophie Masuku

December 2009

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CHAPTER I

INTRODUCTION

Background to the Problem

Zimbabwe was a British colony until the Rhodesian Front government under Mr. Ian Smith declared independence from Britain in 1965 (Edwards & Tisdell, 1989, p. 57). The educational system followed that of the British. According to the Zimbabwe Government (1998) in the *Education Statistics Report*, formal education included primary, lower secondary, and higher secondary education. Primary education comprises 1 to 7 years of schooling. The lower secondary level is divided into junior forms (Forms 1 and 2) and senior forms (3 and 4). At the end of the junior forms, students write the Zimbabwe Junior Certificate examination, and at the end of the senior years, the students sit for Ordinary ('O') level examinations (Zimbabwe Government, 1998, p. 2). Those who pass may go on to do Advanced ('A') level, which generally leads them to the university, technical colleges, agricultural colleges, teachers' colleges, apprenticeships, or labor markets (Zimbabwe Government, 1998, p. 2).

Education in Zimbabwe is centralized in that all decisions are made by the Ministry of Education and Culture, and the Permanent Secretary coordinates all activities of the ministry in the country (Mufambisi, 1995). Administratively, the country is currently divided into 10 regions: namely Matabeleland North, Matabeleland South,

Midlands, Masvingo, Manicaland, Mashonaland East, Mashonaland West, Mashonaland Central, Bulawayo, and Harare. Each region has a Regional Director who is responsible for overseeing all primary and secondary schools in the region. The Regional Director is assisted by two Deputy Regional Directors and a number of Educational Officers. The duties under the regional level are staffing and regional control of the schools. The Regional Director reports to the Permanent Secretary (Mufambisi, 1995).

The regions are divided into districts, and there are currently 59 districts in all 10 regions. Each district is under an Education Officer who reports to the Regional Director. The Education Officer is assisted by District Education Officers who are in charge of controlling the standards in the schools (Mufambisi, 1995, p. 92). Needless to say, these standards are measured in part through the academic performance of students taking the 'O' level annual examinations.

In 1980, the whole country had a 66.6% pass rate with five or more subjects (Dorsey, 1989, p. 55). Dorsey reports that by 1986 the whole country's pass rate had fallen to 11.4% (Dorsey, 1989, p. 55). Table 1 shows the average percentage passes for years 1997 and 1999 in 10 regions. Most regions average less than 20% passes. In 1997, the average pass rate was 19.19%, and in 1999 it was 15.36%. Every child has a right to succeed in school and thus making it in life. With so few passes, very few children have a chance of going to university, because it has high entrance requirements.

The Seventh-day Adventist Church in Zimbabwe consists of the Union Conference, which administratively is organized into three conferences: West Zimbabwe Conference (WZC), Central Zimbabwe Conference (CZC), and East Zimbabwe Conference (EZC) of Seventh-day Adventists. Each conference is responsible for the

Table 1

Percentage Passes and Ranking by Regions

Region	1997		1999	
	Percentage pass	Rank	Percentage pass	Rank
Harare	19.90	4	11.03	9
Manicaland	22.00	1	18.35	2
Mashonaland East	21.70	3	18.17	3
Mashonaland West	17.70	6	14.19	7
Matabeleland North	16.70	9	11.92	8
Matabeleland South	18.30	5	15.91	4
Midlands	16.90	8	14.75	6
Masvingo	21.90	2	19.02	1
Mashonaland Central	17.60	7	14.88	5

Seventh-day Adventist schools found in its region, except for the schools run by the Union. There are 25 secondary schools operated by the Seventh-day Adventist Church in the Zimbabwe Union Conference. Six of the schools were operated directly by the Union. The other 19 schools were operated directly by the three conferences.

Table 2 shows that in the East Zimbabwe Conference (EZC), the mean pass rate in 1996 was 31%, 34% in 1997, 28% in 1998, and 33% in 1999. This is less than a 50% pass rate.

Table 3 shows Central Zimbabwe Conference's (CZC) pass rates. Although its schools seem to be performing much better than the East Zimbabwe Conference schools, still the mean pass rates fell below 50%. In 1996, the four schools that had the statistics had a mean pass rate of 42%; in 1997, all the schools had a mean pass rate of 32%; in 1998 the mean pass rate was 41%; and in 1999 the mean pass rate was 42%.

Table 2

East Zimbabwe Conference Schools' Pass Rates in Percentages

School	School pass rate (%)				Mean
	1996	1997	1998	1999	
School 1 ^a	73	67	79	96	79
School 2	14	20	21	18	18
School 3	15	43	18	25	25
School 4	12	12	10	11	11
School 5	17	15	29	20	22
School 6	11	11	17	13	13
School 7	13	14	21	16	14
School 8	73	66	14	51	51
School 9	51	56	39	49	49
Mean %	31	34	28	33	31

^a Former Union School.

Table 3

Central Zimbabwe Conference Schools' Pass Rates in Percentages

School	School pass rate (%)				Mean
	1996	1997	1998	1999	
School 11 ^a	74	86	85	85	82
School 12 ^a	29	32	33	44	35
School 13 ^a	48	20	36	48	38
School 14	18	17	19	22	19
School 15	0	7	33	13	13
Mean %	34	32	41	42	37

^a Former Union Schools.

Table 4 presents the West Zimbabwe Conference (WZC) statistics that show the mean pass rates, which are way below 25%. In 1996 the mean pass rate was 16%, in 1997 16%; in 1998 the mean pass rate was 19%, and in 1999 it was 20%. One of them in the last 4 years had a mean pass rate of 1%. In some of the years, all the students failed the 'O' level examinations. Only one school in this conference had a mean pass rate a little over 50%.

Table 4

West Zimbabwe Conference Schools' Pass Rates in Percentages

School	School pass rate (%)				Mean
	1996	1997	1998	1999	
School 17 ^a	26	34	37	42	35
School 18 ^a	53	47	63	74	59
School 19	6	6	7	8	7
School 20	20	10	17	4	13
School 21	19	25	5	20	17
School 22	0	0	4	0	1
School 23	2	0	10	8	5
School 24	0	2	6	4	3
Mean %	16	16	19	20	18

^a Former Union Schools.

It is obvious from the statistics of the three conferences that the performance level differs in each conference. The Central Conference seems to be doing generally better than the other two, with West Zimbabwe Conference doing the worst. This leaves one wondering why the schools administered by the same organization should have such differing pass rates.

Table 5 shows the individual schools' pass rates and the regions where they are located. Central Zimbabwe Conference (CZC), which is in Midlands, has the school with the highest pass rate, followed by East Zimbabwe Conference (EZC), with West Zimbabwe Conference (WZC) being the last. As seen in Table 5, only four schools administered by the Seventh-day Adventist Church have pass rates above 50%. The other 18 schools have pass rates below 50%. The pass rate for the schools administered by the Seventh-day Adventist Church is 29%. Thus, among students attending most of the Seventh-day Adventist schools in Zimbabwe, and indeed in many other secondary schools in Zimbabwe, the odds of passing the 'O' level examination are not quite in their favor. Those who do not make it may repeat Form 4 and retake the 'O' level examination until they have the required five passes. Those who choose not to repeat generally end up in the labor market. Many students, especially in the Western Region, find their way to South Africa, where they work in restaurants and as domestic workers. Others remain in Zimbabwe and end up in communal lands working as peasant farmers.

The government of Zimbabwe (1982) sees education as a basic need for every child, as stated in the *Transitional National Development Plan*:

Education is a basic need and a fundamental right; it develops the individual's potential to learn, respond to new opportunities, adapt to social change and participate effectively in the nation's political, social and cultural transformation. It is socioeconomic activity that motivates, sustains and accelerates the rate of economic growth and development by providing society with the requisite productive, managerial and administrative skills. It is a means of meeting social and individual ends—access to social goods and services such as adequate nutrition, health services and decent living conditions. (p. 89)

In another report, the government reinforced the importance of education by stating that education was a right and a basic human need (Zimbabwe Government,

Table 5

School Rankings of Pass Rates by Mean Percentages in Cambridge 'O' levels

Ranking	School	Region	Conference	Mean%
1	School 11	Midland	CZC	82
2	School 01	Manicaland	EZC	79
3	School 18	Matabeleland South	WZC	59
4	School 08	Mashonaland East	EZC	51
5	School 09	Mashoanaland Central	EZC	49
6	School 13	Midlands	CZC	38
7	School 12	Midlands	CZC	35
8	School 17	Bulawayo	WZC	35
9	School 03	Manicaland	EZC	25
10	School 05	Manicaland	EZC	22
11	School 14	Midlands	CZC	19
12	School 02	Mashonaland East	EZC	18
13	School 21	Matabeleland South	WZC	17
14	School 07	Manicaland	EZC	14
15	School 06	Manicaland	EZC	13
16	School 15	Midlands	CZC	13
17	School 20	Matabeleland North	WZC	13
18	School 04	Manicaland	EZC	11
19	School 19	Matabeleland North	WZC	7
20	School 23	Matabeleland North	WZC	5
21	School 24	Matabeleland North	WZC	3
22	School 22	Matabeleland North	WZC	1
23	School 10	Manicaland	EZC	No report
24	School 16	Masvingo	CZC	No report
25	School 25	Bulawayo	WZC	No report

1981). It helps the individual to acquire broad knowledge which will influence their “attitudes, values and skills and on which they can build in later life. It is also an important instrument for effecting people’s access to other basic human needs, such as adequate nutrition, safe drinking water, health service, and the inculcation of popular public health awareness” (p. 11). This report goes on to reaffirm that education was an “economic investment in human beings, who are the most valuable resource of any country and the means and end of all economic activity” (Zimbabwe Government, 1981, p. 11). Fiala and Lanfords (1987, as cited in Mufambisi, 1995) echoed that education was important for social equality and nation building (p. 86).

The same sentiments are echoed among Seventh-day Adventist educators in Zimbabwe. With failure rates as high as 75% for at least half of the secondary schools operated by the Zimbabwe Union Conference of Seventh-day Adventists, the Regional Director of Matabeleland North and the Union Education Officer were clearly concerned. Indeed, in January 1998, in an address to Heads of Schools in the Zimbabwe Union Conference, the Union Education Director, Mr. W. Ncube, stated that the poor pass rates in Matabeleland contributed to low or non-representation of the constituency in such national concerns as politics and the economy (W. Ncube, 1998).

Dorsey (1989) says that “education is a fundamental human right as well as being basic to economic growth and the development of a socialist society. It is a key to jobs in the modern sector of the economy and therefore to upward mobility and a better standard of living” (p. 46).

Statement of the Problem

There is a high failure rate in most of the secondary schools studied that are operated by the Seventh-day Adventist church in Zimbabwe. Results show that 71% of the students attending schools operated by the Seventh-day Adventist organization failed 'O' level examinations from the year 1996 to 1999. The difference is noted again when analyzing these pass rates according to conferences. East Zimbabwe Conference schools had a pass rate of 31% from 1996 to 1999. Central Zimbabwe Conference schools had a pass rate of 37%, and West Zimbabwe Conference schools had a pass rate of 18% within the same years. There was a concern by the Regional Director of Matabeleland North and the Union Education Officer for Zambesi Union Conference as to what accounts for this failure rate. While there are dozens of studies (e.g., Kabba, 1996; Zigarelli, 1996) examining factors related to academic performance in industrialized countries, there has been a lack of such studies in Zimbabwe, particularly among Seventh-day Adventist schools.

Purpose of the Study

The purpose of this study was to investigate the systemic factors that influence the academic performance of students attending Seventh-day Adventist secondary schools in Zimbabwe. The study focused on the student support factors and student factors affecting student academic performance. The student support factors studied were transportation, school facilities, curriculum, school climate, teacher professional development, community support, administrative support, and teacher support. The student factors that were looked into were discipline, motivation, and physiological needs.

Research Questions

The following research questions guided this study:

Question 1: What student support factors that affect student academic performance do teachers perceive are manifested in their schools?

Question 2: What student factors that affect student academic performance do teachers perceive are manifested in their schools?

Question 3: Taking into account the acceptable mean of 3.30 on a scale of 1 to 5, where 1 is “strongly disagree and 5 is “strongly agree,” which student support and student factors are not manifested in each school region?

Research Hypotheses

The research hypotheses were derived from the demographic questions in the questionnaire. The schools are located in different regions and these regions have varying pass rates for their students. It was of interest to find out whether the teachers’ perception of the factors that affect student performance was the same in all the regions.

The schools in Zimbabwe are in urban, rural, farm, or growth points. These schools are different regarding the infrastructure and the surrounding community. Urban schools generally have good buildings and electricity. Rural schools, on the other hand, have few classrooms that are adequately furnished and lack electricity. Farm schools can lack electricity and have poor buildings and yet some can be boarding schools that have electricity and good buildings and furniture. Growth-point schools are located in villages that are turned into towns. Lemon (1995) stated that the schools in the rural areas were underprovided. The teachers in these different locations may not agree about the presence

of the factors that affect student academic performance in their schools.

Secondary schools in Zimbabwe are either boarding schools or day schools. The boarding schools are generally older established schools. Dorsey (1989) quoted the study by Ncube and Neilson (1985) that shows that pass rates were related to the type of school that students attended. It was important to find out the perceptions of teachers based on the type of school.

Because the questionnaire was sent to both female and male teachers, it was of interest to me to find out whether they were in agreement about the factors that affect academic performance in schools run by the Seventh-day Adventists church.

Teachers' age range was noted because the young teachers may be coming straight from college and look at things differently from teachers who are older and have been working in those circumstances for a long time. Teachers' years of service may also cause a difference to exist in their perception of factors that affect student performance in their schools. Teachers' years in the school was also of interest to note because generally when one is new in an area one sees things differently from those who have been there for a longer period. I needed to find out whether the teachers are in agreement about the factors that affect student performance in their school.

D. Moyo (personal communication, July 8, 2000), the Acting Regional Director, mentioned that teachers from East Zimbabwe Conference teach away from their home areas where they do not understand the language of the people in poor working conditions. It was of interest to me to find out whether region of birth brought about a difference in the perceptions of these teachers regarding the factors that affect student performance.

In the Seventh-day Adventists church schools, there are both Seventh-day Adventist teachers and non-Seventh-day Adventist teachers. Do the non-Adventist teachers look at things differently than do Adventists teachers?

W. Ncube (1998) stated that one of the possible reasons for the failure rates in Matabeleland was unqualified and incompetent teachers. It was of interest to find out whether teachers were in agreement on factors that affect student performance based on their qualifications. Dorsey (1989) stated that many rural schools did not have even one fully qualified teacher on their staff.

Hypothesis 1: There is a significant difference in the teachers' perceptions of student support factors that affect student academic performance based on the (a) school region, (b) school location, (c) school type, (d) teacher's gender, (e) teacher's age range, (f) teacher's region of birth, (g) teacher's church affiliation, (h) teacher's years of service, (i) teacher's qualifications, (j) source of light at school, and (k) teacher's years in the school.

Hypothesis 2: There is a significant difference in the teachers' perceptions on student factors that affect student academic performance based on the (a) school region, (b) school location, (c) school type, (d) teacher's gender, (e) teacher's age range, (f) teacher's region of birth, (g) teacher's church affiliation, (h) teacher's years of service, (i) teacher's qualifications, (j) source of light at school, and (k) teacher's years in the school.

Conceptual Framework

The Education Director of the Zimbabwe Union Conference speculated on a number of possible reasons for the high failure rate of the students in Matabeleland in his

address titled “The Painful Truths” (W. Ncube, 1998) after D. Moyo, the Acting Regional Director for Matabeleland North, had expressed some concerns regarding the general poor performance of the region in terms of the ‘O’ level examination results. He suggested that the failure rates may be attributed to (a) unqualified and incompetent teachers, (b) lack of commitment among teachers, (c) inadequate supervision of teachers, (d) low motivation among students, (e) student behavior and discipline, (f) students not equipped with effective study skills, (g) students not exposed to adequate examination preparation, (h) possible excessive drill and practice on previous examination papers at the expense of in-depth teaching on the basic concepts at the primary school level, (i) lack of teaching materials and inadequate facilities, (j) lack of exposure to examination techniques and skills on the part of teachers, (k) students in Matabeleland come from poor homes, resulting in them being underfed, poorly clothed, poorly equipped for meaningful learning, and required to walk long distances to school, (l) lack of cooperation between home and school, and (m) a lack of adequate time to cover the syllabus—no extra teaching.

Looking closely at these points listed above, one can summarize the problem as the school, the teachers, the community, and the parents as affecting the student academic performance. Oliver (1995) confirms this assumption by stating that teachers, parents, and local communities need to work together to improve student academic performance (p. 48).

The students alone cannot achieve high academic performance without the help and encouragement of teachers, principals, parents, and community. The students also need resources that will assist them in reaching high academic performance. Students

will find it difficult to succeed without textbooks, school supplies, and adequate time to study. The teachers cannot impart their knowledge without the necessary training and professional development. All of these are important to student learning.

While the student can get support from the stakeholders, the student needs to be engaged in learning. The student must have inner motivation to learn. The student must put forth effort in the learning process. If the student engages fully in learning and if the student gets support from the teachers, principals, parents, and community, then the student can achieve academically.

A number of studies of effective schools have been done (Jansen, 1991; Lezotte, 1992; Zigarelli, 1996) in developed countries. Several variables are associated with the students' academic performance. Thomas (2003) cites district support given to schools, strong administrative instructional leadership, school focus, school climate and culture, opportunity to learn, student time on task and extended learning time, use of data and monitoring of student progress, professional development, personnel quality, involvement of parents, and school size as factors of high performing, high poverty schools (p. 23).

Taylor (2008) agrees on some of the variables for effective schools. She cites orderly climate, leadership, expectations, frequent monitoring of instruction or assessment, parental and community involvement, and instruction (p. 33). Williams (2008) in his research came up with safe and orderly environment, instructional leadership, and high expectations (p. 142).

Dorsey (1989) cites Ncube and Neilson's (1985) study that pointed to the following factors as contributors to poor pass rates in Zimbabwe. He states that because of increased enrollment, there was a decline in the number of qualified teachers and hence

there was a decline in pass rates. He also believes that the district council and rural schools had neither the experience nor the resources that the 'O' level examination required. The rural schools had a shortage of adequately trained staff, which affected standards attainment in English, as well as all other subjects. The teacher trainees were appointed to schools that had a large proportion of untrained staff, and the untrained staff were placed in positions of responsibility for which they had not been adequately trained. The trainees therefore did not have experienced staff to consult. There was also lack of supervision and support of trainees from parent colleges during the practice year. In the rural schools there was a greater pupil/teacher ratio than in other schools; there were not adequate textbooks; and in some schools there were no library facilities or audiovisual aids (Dorsey, 1989, pp. 54-55). Other studies also confirm that it is important to employ quality teachers (Kabba, 1996; Okpala, Smith, Jones, & Ellis, 2000; Zigarelli, 1996).

Student motivation is also an important aspect of student academic achievement. According to Oliver (1995), the teachers have an influence on the student level of motivation and it is the key to getting the students involved in their learning (p. 48).

Maslow's (1968) hierarchy of needs according to Dembo (1994) places physiological needs as the number one priority. He identified physiological needs as food, water, and sleep. Understanding human needs will help one understand human motivation, according to Maslow. After physiological needs come safety needs, belongingness and love needs, esteem needs, need to know and understand, aesthetic needs, and self-actualization needs. Physiological needs, safety needs, belongingness and love needs, and esteem needs he termed deficiency needs. Growth needs include the need to know and understand, aesthetic needs, and self-actualization needs. The basic

physiological needs must be met first before the other needs are met (Dembo, 1994).

Students in some of the rural and even urban areas go without breakfast or lunch.

Chmelynski (2007) stated that free student breakfast was a way of raising performance in students in the elementary school.

Definition of Terms

The following terms are defined as they are used in this study:

'A' level is Advanced level, which is higher secondary school, equivalent to 6 years of high school, and is awarded by the University of Cambridge in England.

Administrative support is used here to describe the support given by the headmasters.

Community support involves the support given by the parents, business community, regional directors, district education officers, and the education director for the responsible authority.

Conference is composed of local churches within an area demarcated by the higher body of the church organization.

Correspondence school refers to a distance education program.

Curriculum refers in a broad sense to the resources provided in the classroom to help students learn such as textbooks, learning aides, and school supplies. It also includes the study time, study skills, learning time, and examination preparation and the syllabi.

Discipline is used to refer to the conduct or behavior of the students in the classroom and the orderly classroom environment.

F-2 schools prepared students for vocational training such as commerce, industry,

and agriculture.

Government schools are those established by the Ministry of Education and are funded entirely by the government.

Growth points are villages that are being developed into towns.

Manifested or manifestation is used to describe when the factor is present at a satisfactory level.

Motivation is used to describe how students push themselves to acquire knowledge that would help them pass the ‘O’ level examinations.

Non-government schools are those under the authority of the churches, urban and rural councils, mines, farmers, trusts, or committees and partially funded by the government.

Non-graduate student teacher trainees are those students who are in teacher training programs and have not yet earned their diplomas.

‘O’ level is Ordinary level, which is lower secondary school, equivalent to 4 years of high school, and is awarded by the University of Cambridge in England.

Pass rate in this context refers to the proportion of students who obtain at least five subjects marked C or better, including English language in the ‘O’ level examination.

Physiological needs are used to describe the state of the students when they come to class, whether they are fed, clothed adequately, and rested enough.

Primary school is elementary school, from Grade 1 to Grade 7.

Responsible authority is the person or body or organization responsible for the establishment and management of the school (Zimbabwe Government, 1996, p. 619) or “an organization, board, committee or individual who owns a school or group of schools”

(Chiwaro & Manzini, 1995, p. 124).

Rural schools are those schools located in the villages that serve the rural community.

School climate describes the relationship between teachers and headmasters, the open communication between teachers and headmasters, the teacher turnover, absenteeism, and general atmosphere in the school.

School facilities describe the buildings, water supply, lighting system, sufficient classrooms, school furniture, and computers.

School location is whether the school is located in an urban, rural, growth point, or farming area.

School performance is measured by the proportion of students who pass 'O' level results with five passes with a grade 'C' or better in each school.

Secondary school is high school, Form 1 to Form 6.

Student factors are evidenced by discipline, motivation, and physiological needs.

Student performance is the student's passing of 'O' level results with five passes with a grade 'C' or better.

Student support factors are evidenced by transportation, school facilities, curriculum, climate, teacher professional development, community support, administrative support, and teacher support.

Teacher professional development is measured by the availability of seminars for teachers and academic advancement programs.

Teacher support takes into consideration the qualifications, commitment to their work, and the expectations they have of their students.

Trained teachers are those who have a teaching diploma and above.

Transportation describes the means by which the students get to school.

Type of school is whether they are boarding schools or day schools.

Untrained teachers are high-school graduates also known as temporary teachers.

Urban schools are those schools located in the cities whether fully funded by the government or private schools.

Significance of the Study

Schools are agents of change, and students can bring about change if they are involved in the community. Any new idea that the authorities want to bring to the nation can be easily implemented in the community if it is first taught in the schools. Health issues, for instance, are taught widely in the schools to bring about change in the community. When students get good education that comes through the encouragement of the community and the support of the school and teachers, there will be a change in the community.

The future economy of the country lies in the hands of the students. The country needs educated people to fill the job market. There is no way the country can continue to rely on outsiders to do the white-collar jobs. There is a need for local medical practitioners, lawyers, teachers, and bankers to serve the community and the country. If students are not well supported in school and if they lack motivation, how can they learn to assume these positions? In the past, a lot of funds were spent paying the expatriates instead of that money being used in the country. Therefore, education is necessary for the economic development of the country. Edwards and Tisdell (1989) stated that the

government has put faith in education as a means of providing economic opportunities and enlightenment for all.

The results of this study will be useful for school improvement. The educators, the Ministry of Education, and all the stakeholders are interested in seeing a change in the academic achievement of the students. This study therefore should be of much interest to the stakeholders, because it identifies some factors perceived to be important in the academic achievement of the students. Policy makers in educational reform and those involved in the distribution of funds might find the study useful. The headmasters will be aware of what makes their school different from the other schools and might adapt some of the practices of other schools. The teachers might be able to pinpoint their weaknesses and make necessary improvements. The study shows in each region the factors that are strong and the factors that are weak so that improvement may be made.

The results of this study will be useful to Seventh-day Adventist administrators in making decisions with regard to hiring of teachers and heads of schools. This will help especially as they try to address the situation that is currently prevailing in schools that are not doing so well in the 'O' level results.

In the report of the Zimbabwe Government (1982), one of the concerns was quality in education. The government stated its commitment to the attainment and maintenance of the highest possible quality of education and that the necessary inputs would be supplied. Among those mentioned were the quality of teachers, schools and facilities, the pupil/teacher ratio, the recurrent per pupil expenditure, and curriculum content. With some of the schools not doing well, this study will help the Ministry of Education pinpoint the problem and make necessary policies to address the situation.

This study should have a big impact on staff development. The schools have used many teachers who were not qualified. It was left to the principal to instruct the new teacher of what was expected of him or her and how to go about doing it. Only a few of those teachers are employed now, but there is need for the government or responsible authority to do in-service training for these teachers. The trained teachers also need to be in-serviced and to share their experiences with the new teachers. There are new methods of teaching introduced from time to time, and teachers should be encouraged to read and learn more of these.

Delimitations and Limitations

This study was delimited to the Adventist secondary schools because of distance, time, and monetary constraints. This meant that the findings could be generalized only to those schools that are similar. The population for this study was limited to secondary school teachers in the Seventh-day Adventist church schools.

Few research studies have been done in Zimbabwe about the academic performance of the students. Very few effective school studies have been done in Zimbabwe.

A major limitation was that I used the Education Director of the Zimbabwe Union Conference to obtain information from the schools and to deliver the questionnaires. However, he was not always available to perform these tasks because of his busy schedule. He was able to get some volunteers who could fill in as best as they could. Adding to this was the far location of many of the schools that may have impacted the return rate of the questionnaires. These volunteers did not have a budget to assist them in

their travels associated with the data collection.

Another limitation was the unwillingness of those in authority to release vital information regarding school performance and statistical information. Some of the schools do not keep good school records and therefore some of the information I requested was not available.

Yet another limitation centered on the fact that student academic performance was measured by passing at least five subjects or more in the 'O' level examination. The subjects taken by the students differ according to the school they attend and according to their personal preferences. The passing of five or more subjects does not take into consideration the varying difficulty level of each subject.

Assumptions of the Study

It was assumed that the process for distributing and collecting the surveys would be understood and applied uniformly throughout the various regions. It was assumed that the teachers did not discuss the survey before completing it. It was also assumed that teachers were not giving socially acceptable responses because of fear of reprisal.

Organization of the Study

This study is organized into five chapters. Chapter 1 addressed the history of education in Zimbabwe and the general trend in "O" level results in the secondary schools run by the Seventh-day Adventist church in Zimbabwe. The chapter covered the background to the problem, the statement of the problem, and the purpose of the study. The research questions were also discussed together with the research hypotheses. The conceptual framework was addressed and the significance of the study stated. The

limitations and delimitations of the study and assumption of the study were addressed.

Chapter 2 reviews related literature. It dwells on the history of education in Zimbabwe and the effect of independence on education and its related problems. It also examines factors likely to affect student achievement in Zimbabwe, and these are community-, school-, and student-related factors.

In chapter 3, the research procedure is presented and the population and sample are identified. The instruments used are explained and the data collection techniques are mentioned.

Chapter 4 analyzes the data and reports the findings. Research questions and hypotheses are addressed. Descriptive statistics are used to answer the research questions on the importance of the student support factors that affect student academic performance and also on the student factors that affect student academic performance.

Chapter 5 presents the summary of the study. This chapter discusses the findings and conclusions are made. Recommendations for future study are also made. The appendix is found at the end of the study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

This study examines the factors related to student academic performance in the Seventh-day Adventist secondary schools in Zimbabwe. This chapter reviews related literature. There is a paucity of studies dealing with factors affecting performance levels in Zimbabwe. Therefore the literature reviewed relates primarily to the history of education in Zimbabwe and recent research studies on effective schools.

History of Education in Zimbabwe

Colonial Period

Zimbabwe was colonized by Britain, and hence the education system is based on the British system. Before 1980, when Zimbabwe attained its independence, only a few Black children could afford to go to school. The Black child's education was voluntary and selective. No child could move to Form 1 without passing Grade 7, and only a few could move on to Form 5 (Dorsey, 1989). The parents were required to pay school fees, and since they could not afford it some of the children who qualified to go on to Form 1 stayed at home to help the parents in the fields and herd cattle. Only 4% of the children in the secondary school system were Blacks (Dorsey, 1989).

The budget provision for the Black education was set at 2% of gross national product and yet for the Whites it was left open. As a result, the government spent 12 times more per primary school pupil in the European system than in the African system. In the secondary school level, the government spent nearly 3 times more per pupil in the White schools than in the Black schools (Dorsey, 1989).

Education for the Whites, on the other hand, was compulsory up to the age of 15. Pupils automatically moved on to secondary school and nothing could stop them from moving up to advanced level, since funds were available for them (Dorsey, 1989).

By 1966, there were so many primary-school-leavers that the Rhodesian Front government was forced to take measures to amend the problem. They devised a 10-year plan to build 300 2-year junior secondary schools to absorb all the primary-school-leavers. These were called F-2 schools. The F-2 secondary schools emphasized the curriculum in commerce, industry, and agriculture. Unfortunately, this did not work because, by the end of 1976, there were only 59 2-year junior schools that were built. The failure to reach the target was attributed to the Blacks, who did not accept these schools as they emphasized vocational training, which they thought was inferior to what the academic secondary schools taught (Dorsey, 1989). These F-2 secondary schools prepared the Black students for employment within the location they came from. According to Dorsey (1989, as cited in Mufambisi, 1995), this curriculum was a way of lessening the threat of Africans flooding the job market. Students shunned these schools, too, and only went there when they failed to enroll in academic secondary schools. In 1980, these schools were replaced by the more academic secondary schools.

Coalition Government

By 1978, there was an internal settlement by the government, and a coalition government was formed that incorporated the internal Black political parties. In 1979, the government was forced to make some changes in the distribution of land, job opportunities, voting rights, and education. The Education Act of 1979 provided for “the integration of the ‘European’ and ‘African’ divisions of education,” which had been separate, and “for the ‘gradual’ racial integration of schools” (Dorsey, 1989, p. 43).

Lemon (1995) cites the five classes of schools under the Education Act of 1979:

1. Private schools, with government support for teachers’ salaries.
2. Group A schools (in effect former White, colored, and Asian schools), which were to be spatially zoned and would charge fees.
3. Community schools (a new category formed from among former White, colored, and Asian schools), which were permitted to purchase their own premises on favorable terms from the government, which would continue to pay and supply teachers.
4. Group B schools (effectively former African schools), which were to charge a lower rate of fees.
5. Schools in African Tribal Trust Lands (the present communal areas), which were to be free. (p. 103)

Lemon (1995) agrees with Dorsey (1989) that the government schools were classified as Group A schools, which were former schools of the European division, and Group B and C schools were former African division schools. He goes on to explain that Group A schools were high fee-paying, Group B schools were low fee-paying, and Group C schools were non-fee-paying. The non-fee-paying schools were in the tribal trust lands and were administered mainly by Councils and Missions. Lemon (1995) goes on to say that the Group B schools were inferior, while the rural schools (Group C, schools in the African Tribal Trust Lands) were “under-provided” and depended on community inputs. He states that they were free in name only (p. 103).

Dorsey (1989) and Lemon (1995) point out that although this Education Act of 1979 was introduced, there was strict zoning so that the Black students could not attend White schools. This was achieved through the ownership or lease clause. The students who could enroll in White schools were required to have parents owning or leasing a house in that zone. Very few Blacks at that time could afford to live in the eastern suburbs. Most of the domestic workers, even though they lived in the area, did not own or lease a house, and they could not afford the high fees.

Majority Rule

In 1980, Zimbabwe attained its independence, and of course it was faced with a number of difficult tasks to do. About one-third of the schools in the rural areas were closed during the liberation war, and they needed to be reopened (Dorsey, 1989). This meant hiring a lot of teachers, and, since there were no locals, the government had to use teachers from other countries such as Australia, Britain, and Canada. Another task was to increase the educational system as a whole to accommodate the many children who could not find places to continue their education after the primary school. It also built many more primary schools to accommodate the children who had failed to attend school during the liberation struggle.

In 1981, the Act of 1979 was amended, thus ending the grouping of schools and allowing children of domestic workers to attend the former White schools (Lemon, 1995). It was not possible for all the children to move to Form 1, but an effort was made that all who passed Grade 7 had the opportunity of moving to secondary school (Lemon, 1995). Lemon continues by saying that the increase in the number of schools and enrollment was

“achieved at the expense of a dramatic fall in GCE ‘O’ level pass rates, with 39% of candidates failing in all subjects in 1990” (p. 105).

The government allowed a number of universities to be opened. At the beginning of my research, three universities were established. Africa University was opened in 1992; Solusi University was established in 1894 as a college and got its university status in 1994; National University of Science and Technology (NUST) got its university status in 1991. Later on, more universities opened up: Bindura University of Science Education in 1996, Midlands State University in 1999, and Chinhoyi University of Technology in 2001. Many preschools were opened, and adult education institutions were also established. Racial education and sex discrimination in the education system were abolished.

Enrollment Explosion

For the first time in the history of a Zimbabwean Black child, there was free compulsory primary (Edwards & Tisdell, 1989; Lemon, 1995). As a result of compulsory education, enrollment went up from 819,586 in 1979 to 2,263,947 in 1986, representing an increase of 176%. Although the education is not free in the secondary schools, enrollment increased from 66,215 in 1979 to 537,427 in 1986, representing an increase of 711% (Dorsey, 1989; Edwards & Tisdell, 1989).

Because of the increased enrollment, there was a lack of classrooms to accommodate all the students so that the government was forced to request that the existing schools increase their enrollment, and it had to rapidly build schools under the authority of the District Councils. Dorsey (1989) points out that the number of primary

schools doubled from 2,401 in 1979 to 4,291 in 1986, and secondary schools rose from 177 to 1,276 during the same period. Most of these schools were built in the rural areas, and some of them began as upper tops, using the buildings for the primary school until they could build their own. These were day secondary schools under the management of councils (Dorsey, 1989).

The government also introduced “hot-seating,” that is, “an arrangement by which half of the school population attends school in the morning and the other half attends in the afternoon” (Edwards & Tisdell, 1989, p. 58). The government had to use expatriate teachers from Australia, Britain, and Canada on 3-year contracts (Edwards & Tisdell, 1989). The government also used “on the spot” teacher training of Zimbabweans, which is called the Zimbabwe Integrated National Teacher Education Course (ZINTEC) (Edwards & Tisdell, 1989). Dorsey (1989) goes on to explain that this program involved 16 weeks of intensive training followed by 3.5 years of in-service distance education training when the students are assigned to primary schools to teach. During the 4th year, the students return to the college for another intensive residential course.

W. Ncube (personal communication, June 21, 2000) stated that life for the pupils in the rural areas is not usually easy. Some of the pupils walk long distances in order to attend school. They leave home very early in the morning without breakfast and walk to school. Mpondi in the *International Handbook of Urban Education* by Noblit and Pink (2008) agrees with Ncube that students walk long distances to school.

There are no shops around the school to buy something to eat, and even if the shops were there, students do not have money to buy snacks. These children have a meal when they get home, which is only once a day. This obviously impairs their learning

process. Dorsey (1989) points out that some of these children ask to stay in neighboring homes, and people are generous enough to accommodate them. Yet some use the classrooms at night as dormitories or build small huts within the vicinity of the school (N. Ncube, 2004). They bring their provisions for the whole term and cook outside in open fires. They live with no supervision from the teachers.

The majority of schools in the urban areas are day schools. There are few boarding schools. The students leave home early in the morning to go to school. Most of the schools are located near their homes and students can walk to school. There are some students who choose to go to some other schools for different reasons and these students might need to catch a bus to get to school. These students usually return home in the evenings.

It was difficult for schools in the rural areas to attract trained teachers. Dorsey (1989) points out that there were poor housing conditions and a lack of amenities in rural areas. Most of the teachers who were willing to face these conditions were therefore untrained or primary trained (Dorsey, 1989; N. Ncube, 2004). Mpondi (Noblit & Pink, 2008) stated that many of the teachers in the rural areas were untrained and the living conditions for the teachers were poor.

Mpondi (Noblit & Pink, 2008) goes on to say that in the urban areas, the schools were over-enrolled and they had a hot-seating system. The students had a shortage of textbooks and the libraries were poorly equipped. The government funded the urban school more than it did the rural schools and yet there was no difference in the curriculum and examinations.

School Funding

Schools in Zimbabwe are divided into government schools and non-government schools, based on the source of funding and control. The secondary schools in each category can be boarding or day schools, co-educational or single-sex schools, and urban or rural schools (Mufambisi, 1995). The government schools were established by the Ministry of Education and Culture, and the running of the schools was controlled by regional and District Offices. The ministry determines the structures and the fees. These schools generally have better equipment and qualified teachers, and the duties of personnel are well laid out.

The non-government schools, on the other hand, comprise about 85% of all schools (Mufambisi, 1995, p. 4). These schools are run by the churches, by the urban and rural councils, by the mines, by the farmers, by the trusts, and by the committees. Dorsey, Matshanzi, and Nyagura (1991, as cited in Mufambisi, 1995) say that 65% of the schools are controlled by district and rural councils, 15% by missions, and 5% by trust schools (p. 4). In these schools, the government provides per-capita grants, pays teachers' salaries, and gives grants for construction. Per-pupil grant is given on the basis of the enrollment and the grade of the students, regardless of where they come from. This grant is used to buy textbooks, stationery, and furniture. All other expenses, including school operating expenditures, capital development, and recurrent costs, are the responsibility of the governing authorities.

The *Education Statistics Report* (Zimbabwe Government, 1998) confirms that education in Zimbabwe is financed by the government, by private enterprises, by the local authorities, and by the parents or guardians. Because of the difficulty in finances, the

1987 Education Act introduced “a system of management councils, under which parents were given the opportunity of charging themselves higher fees if the majority of the parent body agreed” (Chung, 1988, as cited in Lemon, 1995, p. 107). The fee was used to pay for additional teachers’ salaries, new facilities, extra books, or whatever was agreed upon (p. 107).

During the enrollment explosion, a lot of schools were built. The funding of these school buildings came from government building grants, per-pupil grants, and the help of local communities. According to Dorsey (1989), the government gave one-third of the cost of building rural secondary schools and the community provides the remaining two-thirds. In the urban areas, the government provided for the full cost. The local people in the rural areas paid building fees and were also involved in the actual building process. Unfortunately, some of the administrators mismanaged the grants and did not buy books and stationery as they were supposed to, thereby affecting the quality of learning. This was corrected by the training offered to administrators (Dorsey, 1989).

The schools in the rural areas have fewer students as compared to urban schools because the villages are sparsely populated and there is a long distance between one village and the next. The parents are primarily peasant farmers, and they rely mostly on the seasonal rains that sometimes fail to come. This means that their financial status is not always stable, and they have difficulty paying the needed school fees. These rural schools remain poor compared to the urban schools.

The boarding schools are somewhat different. The students in boarding schools are required to pay tuition and fees. Each school charges differently. The tuition and fees

are used for the upkeep of the school, to pay teachers and support staff, for the students' food, and all other operating costs.

Textbook Development and Examination Protocols

The Ministry of Education and Culture is the national authority for education in Zimbabwe and controls education by requesting that all schools be registered with the Ministry. The ministry also controls the curriculum through provision of syllabi to be used by the teachers. Jansen (1991) stated that “the formulation of curriculum policy is centrally controlled” (p. 79). The curriculum in 1980 was inherited from the Rhodesian Front, and it was “racist, elitist, Eurocentric, competitive, individualistic, and capitalist oriented” (Jansen, 1991, p. 79). The ruling party then sought to change the curriculum by having specific goals such as

develop a socialist consciousness among students; to eliminate the distinction between manual and mental labor; to adapt subject-matter content to the Zimbabwean cultural context; to foster cooperative learning and productive development strategies as part of the school curriculum; to increase opportunities for productive employment. (Jansen, 1991, p. 79)

Not all the goals were met, as the ruling party through the Ministry of Education met with resistance from the people and the churches.

The Ministry of Education has a body called the Curriculum Development Unit (CDU) that implements the curriculum policy. This body is assigned the task of developing appropriate syllabi. It develops an outline of various topics to be taught in a particular subject. These topics are broken down into sub-topics. The syllabi are publicized and are given to various publishers to develop a suitable draft for a textbook. The Evaluation Unit, which works under the CDU, analyzes the textbooks, taking note

that the state's social goals are met. Permission has to be granted by the government for a school to develop its own curriculum (Jansen, 1991).

The comprehensive examinations for Form 2, Form 4, and Form 6 are controlled by the Ministry of Education and Culture (Education Act of 1996, 1996; Mufambisi, 1995). The ministry gives the CDU the task of setting up the examinations. Certain teachers are asked to go to certain points in the country to grade these examinations.

Hiring Teachers

The hiring of new teachers used to be the work of the Ministry of Education, but now it is in the hands of the head of the school and the school committee, which is comprised of a deputy head plus a representative from the Responsible Authority, a parent who is a member of the Parent Teachers' Association, and one teacher. To avoid nepotism, no one head can fill the position alone (W. Ncube, personal communication, September 3, 2001). The transfer cases are decided by the Regional Directors through a Regional committee. The positions should be advertised on notice boards and through the media if funds are available, with copies to the colleges where some of the candidates are in training.

Staff Training

Dorsey (1989) states that after independence, graduate-trained secondary school teachers constituted 10.5% of teachers in this sector. He continues to say that there were also primary trained teachers, non-graduate student teacher trainees, and untrained teachers teaching in the secondary schools, and these comprised 66.3%. Primary-trained teachers were supposed to teach in primary schools. Non-graduate student teacher

trainees were still under training but were required to spend part of their time teaching. Untrained teachers are those who finished high school with passes in 'O' level of 'A' level and were without training at all. Because of this, the government introduced in-service training of teachers in both the secondary and primary school sectors using a "combination of distance teaching and residential courses" (Dorsey, 1989, p. 49). The teachers would attend the University of Zimbabwe during school holidays to take their residential courses.

The University of Zimbabwe was the only university in 1980 and could train only graduate secondary school teachers, but now new universities have opened, such as Africa University and Solusi University. The University of Zimbabwe offered a 1-year postgraduate certificate in secondary education, and this can be taken part time over 2 years for untrained graduate teachers (Dorsey, 1989).

The graduates from teachers' colleges can upgrade to degree status by taking a bachelor in education degree, which is a 3-year part-time degree. After completion of this degree, the teacher can then teach in secondary schools (Dorsey, 1989).

Education and the Seventh-day Adventist Church in Zimbabwe

According to the Education Director of the Zimbabwe Union Conference, the schools in the East Zimbabwe Conference do better than either Central Zimbabwe Conference or West Zimbabwe Conference (W. Ncube, personal communication, June 21, 2000). The possible reason for this, according to him, is that the East has more qualified teachers than the West. Students from the East have better passes than those from the other areas so that they are able to attend colleges anywhere in the country. D.

Moyo (personal communication, July 8, 2000), who is Acting Regional Director for Matabeleland North, echoed the same sentiments that the same students who graduate from these colleges become immigrants and teach away from their home area in places where they do not understand the language of the local people. These teachers also teach in poor conditions so that they end up transferring to better schools. They lack commitment to their work because of the environment and the language situation.

In the Seventh-day Adventist schools, the hiring used to be done by the Education Officer, who would send the name to the Regional Officer, who would then appoint the teacher to the selected school. Later the hiring was changed so that the school committee, under the leadership of the school head, was given the responsibility of hiring teachers, and this did not work well for the church because teachers who are not Seventh-day Adventists and who have different lifestyles ended up in the church schools, thus affecting the smooth running of the schools (W. Ncube, personal communication, September 3, 2001). Generally, there is no difference in the hiring of teachers between the other schools and the Seventh-day Adventist church schools. The reason is that the church schools are partially supported by the government. The teachers are paid by the government. The only difference is that the responsible authority has a say as to who goes to teach there. They can negotiate with the staffing officer for a teacher.

Effective School Studies

Boyer (1996) cites five priorities for quality schools. The first priority is to build a sense of community within the school that involves shared vision. The second is the centrality of language, that is, the study and use of symbols. The next priority is a

curriculum with coherence. The following one is to create a climate for creative learning and the last is to have a climate that affirms the building of character for every student.

Jaggia (1999) studied the factors that influence student performance. He disputed that spending does not increase student performance. He stated, however, that family background and the stability of a community can affect student performance.

Coding and Tucker (2000) devised a list of factors that can help change the school. They are summarized as: (a) safe, clean environment for everyone, (b) clear, high standards for students, (c) a sequential curriculum for the academic core, matched to the standards, (d) strands in the curriculum for students who are working below grade level in the core, so (e) incentives for all students, (f) a school climate and organization that produces strong, personal support for each student, (g) strong support for every staff member to acquire the professional skill and knowledge needed to succeed in his or her job, (h) community services and supports for the students outside school, (i) a school leadership style that is inclusive, (j) increased parental support to their children in school, (k) a school culture that focuses on results, and (l) high expectations for each student (pp. 80-81).

Kabba (1996) did a study to determine the perceptions of students in Sierra Leone colleges and universities concerning factors that influence student performance on the GCE-‘O’ Level Examination. One thousand students who were randomly selected were administered a questionnaire that was developed by the researcher. The questionnaire looked at the 10 factors that might affect student performance on the GCE-‘O’ Level Examinations: (a) socioeconomic status, (b) high-school curriculum, (c) educational amenities, (d) management/leadership, (e) teacher credentials and experience, (f) teacher

stability and endurance, (g) parental involvement and support, (h) school locality (environment), (i) family marital status (monogamous/polygamous), and (j) gender. Kabba's (1996) study concurred with other effective school studies that socioeconomic status did affect student performance. The results also indicated that, curriculum content, educational amenities, management and leadership, teacher's credential and experience, parental support and involvement, and school environment, enhanced student performance. Kabba (1996) found in his study that staff credentials and experience enhanced student performance but that teacher stability or duration did not affect student performance.

Johnson and Johnson (1996) did a review of research articles about effective schools. They point to Purkey and Smith (1982), who identified climate, emphasis on basic skills, teacher expectations, administrative leadership, and systematic feedback on academic progress as characteristics of effective schools. They also mention the study by Codianni and Wilburn (1983), who came up with similar characteristics of effective schools. He mentions positive school climate, emphasis on basic skills, high student expectations, continuous assessment of learning, strong leadership, and systemic staff development. Kabba (1996) agrees with the other studies that curriculum is important to the student academic achievement.

The report of the Ministry of Education and Higher Education in Geneva (1996) made to the 45th session of the International Conference on Education reported that the problems being faced by Zimbabwean schools were shortages of teaching facilities, learning resources, textbooks, and teachers' houses, and these have affected the quality of education. The shortage of teachers' houses has drawn qualified teachers away from the

rural areas to urban areas that are adequately provided with comfortable housing. The Ministry of Education is responsible for early childhood education, primary education, and secondary education. The Ministry of Higher Education is responsible for post-secondary education, that is, tertiary education and training.

Riddell and Nyagura (1991) conducted a study to find out what causes differences in achievement in Zimbabwe's secondary schools. The sample consisted of former group A schools, former group B schools (urban government schools), former group B schools (rural government schools), high fee-paying schools (trust schools), mission schools, and new local authority-run district council schools. The trust schools are similar to the American 'private' schools or British 'public schools'. The schools chosen were located in the Harare, Mashonaland West, Midlands, and Matabeleland North regions. This was a multilevel model and they used information from the Form 2 results in English and mathematics as well as the Grade 7 results for each sampled student.

The results of the study showed that students in high fee-paying schools, former group A schools, and mission schools had a higher level of achievement in English and mathematics than did the students in government group B schools and the district council schools. It was noted that the variation in student achievement was attributable to the school the student attended. The results also showed that student achievement was higher in schools that have textbooks, more trained teachers, and teachers who have taught at that school for a longer period of time.

N. Ncube (2004) conducted a study in managing the quality of education in Zimbabwe and measured internal efficiency of selected rural day secondary schools. He used both qualitative and quantitative design. He selected 1 out of 10 regions and then all

the schools in the selected region. For the qualitative design, he selected five rural, day secondary schools that were accessible to him. Six managers in each school were selected into a focus group and all the five headmasters were interviewed.

One of the subjects he addressed in his study was the views of school managers and school heads on factors affecting the quality of education in rural, day secondary schools. Some of the reasons cited were the caliber of students enrolled in rural day secondary schools, lack of resources, low teacher morale, long distance walked by students to school, and the curriculum that did not address the needs of rural students.

From the research on effective schools, I came up with important factors for student academic performance as student support factors and student factors. Under the student support factors, I examined transportation, school facilities, curriculum, school climate, professional development, community support, administrative support, and teacher support. Under the student factors, I examined discipline, motivation, and physiological needs.

Student Support Factors

Transportation

In Zimbabwe, students have to find their own way to school. In urban areas, they use public transport and if they cannot afford it, they walk to school. The majority of the parents do not own cars. In the rural areas there is no public transport. The students have to walk to school. Some of the children have to walk long distances, because not every village has a secondary school. This might mean that students arrive at school tired. No studies have been done on the effect of transportation on student academic performance.

It is a major concern though in the country of Zimbabwe, and therefore it is worth looking into.

The report on effective schooling in rural Africa (World Bank, 2000) found that one of the factors that limited student learning was difficulties associated with getting to school. The report cites children undergoing long journeys on foot to school. N. Ncube (2004) found that distance was a problem for the rural school child. Some children had to walk 12 to 15 kilometers one way to school and then walk that same distance back home. When they get home, they are not able to study or do their homework. In his study, the headmasters pointed out that these students sleep during classroom time and, as a result, they fail their examinations.

School Facilities and Resources

The school facility factor looked at the physical items and included the availability of a school library, computers, furniture, buildings, classrooms, lighting system, and water supply. Schools in the rural areas do not have access to computers since there is no electricity. The water supply is also a problem in the rural areas. Some of the schools have wells within the school grounds that were donated by non-profit organizations. Dorsey (1989) states that schools in the rural areas lacked amenities and have poor housing conditions. N. Ncube (2004) pointed out that most students in the rural areas sit on the floor, on broken benches, or on bricks.

The schools in the urban areas are better equipped than are rural-area schools. They have electricity and therefore they can use computers. They have better furniture and the buildings are better maintained. The schools might not have a library but there

are public libraries around where the students can go to study or do research. There is tap water in all the schools in the urban areas.

Edwards and Tisdell (1989), in their comparative study of educational systems of Zimbabwe and those of selected African and advanced countries, mention that in Zimbabwe the government schools do far better in students' academic performance than do private schools. One of the reasons cited was that the government schools were former Group A schools that were for the White people, and these schools charged high fees to their students (Edwards & Tisdell, 1989). These schools had good buildings and since they were mostly in the urban areas they had electricity, running water, good furniture, and libraries. If the schools did not have a library, there would be a library in the town.

Fuller (1987) reviewed studies on school factors that raised achievement in the Third World. The school factors included school expenditures (expenditures per pupil, total school expenditures), specific material inputs (class size, school size, texts and reading materials, desks, radio, school building quality, library size and activity, science laboratories, nutrition and feeding programs), teacher quality (punctuality and absenteeism, percentage of full-time teachers, salary, verbal proficiency, length of experience, in-service training, experience, and length of schooling), teaching practices/classroom organization (length of instructional program, homework frequency, active learning by students, teacher's expectations of pupil performance, teacher's time spent on class preparation), and school management (quality of principal, multiple shifts of classes each day, student boarding, and student repetition of grade).

Fuller (1987) reviewed 60 school effect studies. He partialled out effect of family

background. Fuller came to the conclusion that school factors do influence achievement in the Third World. Another conclusion he made was that specific material inputs such as desks, libraries, and textbooks were related to achievement in the Third World but that costly inputs such as class size, teacher salary levels, and science laboratories are not related to student achievement.

Fisher (1999) states that having computers in the school helps in the performance of science and mathematics. Students are able to actually observe the process of, for instance, the growth in an egg without having the actual egg. This is possible through the Chickscope project based at the University of Illinois at Urbana-Champaign (Fisher, 1999, p. 1). It is also easy for students to research whatever they are learning in school through the Internet.

The report of the World Bank (2000) mentioned that “the conditions of schooling and the nature of students’ lives in rural areas act to reduce students’ readiness to learn” (p. 4). The report mentions that there is “poor or non-existent sanitation at the schools, uncomfortable and even harmful conditions within classrooms” (p. 4).

Usually the buildings in the rural schools in Zimbabwe are of poor condition, and the students do not have good furniture or use broken benches or chairs and desks. Hoy and Miskel (2001) pointed out that the condition of the buildings affects the learning of the students. They say there is a positive relationship between building condition and the achievement levels of students.

Curriculum and Learning Materials

Curriculum in this study refers to the teaching practices and instructional

materials. It included such items as sufficient textbooks, teaching material, study skills, use of past examination papers, preparing students for 'O' level examination, syllabi, study time, and school supplies.

Fuller (1987) indicated that the length of instruction and the efficient use of instructional time affected student academic performance. He also stated that the amount of homework given to the students influenced their academic performance. His study also concluded that the availability of textbooks affected student academic performance.

In Zimbabwe, the problem faced by schools is the provision of textbooks. The *Development of Education* report (Ministry of Education, 1996) stated that, in 1992, the average student/book ratio was 5:1 in the rural areas and 2:1 in the urban areas. Ncube (2004) in his study discovered that the shortage of textbooks was a problem in the rural areas. The libraries were nonexistent in the rural areas, and in the urban areas they were poorly equipped.

Riddell and Nyagura (1991) concur that some of the schools lack adequate resources such as qualified and experienced teachers, textbooks, library books, and other instructional materials.

School Climate

Esposito (1999) describes school climate as

perceptions of the physical and psychological school environment, including relationships among and between administration, teachers, parents, students, and community at large; instructional and extracurricular management; the condition of the school building and grounds; and the encouragement of the development of academic and social values among students. (p. 3)

In this study, school climate is explained as the positive spirit in the school. The

behavior of students, enforcement of rules, teamwork, morale, open communication, clear vision, teacher absenteeism, teacher turn over, and cleanliness in the school were also included in the school climate definition.

Studies of effective schools have repeatedly shown that school climate is one of the major factors in student achievement (Johnson & Johnson, 1996; Peterson & Skiba, 2001). Hoy and Hannum (1997) looked at six aspects of a healthy school climate. These include academic emphasis, teacher affiliation, collegial leadership, resource support, principal influence, and institutional integrity. They used the Organizational Health Inventory for middle schools in order to collect data from teachers in 86 middle schools. These schools were urban, suburban, and rural from different geographic areas of the state of New Jersey. They also came from different socioeconomic levels of the state. The results in this study showed that the general school health was positively related with student achievement in mathematics, reading, and writing.

The headmasters in the study conducted by N. Ncube (2004) indicated that teacher morale was a problem for most of the schools in the rural secondary schools in Zimbabwe. This was caused by transportation problems to the schools and building conditions of the schools. This highly affects the quality of education and hence student academic achievement.

Stover (2005) stated that school climate was the best predictor of student academic achievement. Zigarelli (1996) did a study on effective school variables. He used the National Educational Longitudinal Study of 1988 to identify six factors for effective schools. These included employment of quality teachers, teacher participation and satisfaction, principal leadership and involvement, a culture of academic

achievement, positive relations with the central school administration, and high parental involvement. He constructed a questionnaire that was distributed to eighth-graders in 1988, 10th-graders in 1990, and 12th-graders in 1992. He also surveyed the parents, teachers, principals in the first year. The parents were surveyed to give information on family background and socioeconomic status. His results showed that teacher morale did affect student performance.

Teacher Professional Development

Teacher professional development in this study included such items as academic advancement programs and seminars. Fuller (1987), in his review of research articles, states that there is a significant relationship between teacher's length of post-secondary schooling or the number of teacher training courses completed and student achievement. This study showed that there was a relationship between the in-service training of teachers and student achievement.

In Zigarelli's (1996) study of effective schools, he discovered that school culture that was measured by the extent to which the school emphasized achievement and the number of minutes students spent in class each day had a positive effect on student achievement. There is no evidence, however, that principal involvement in the improvement of teaching contributes to student achievement. The study disputed the fact that teacher educational level affected student performance. Ravitch (1999) in his article, however, felt that students were unlikely to be high achievers unless their teachers were knowledgeable in the subject they were teaching. He stated that the poor performance levels in the United States resulted from teachers teaching without either a major or a

minor in their main teaching assignment.

Okpala et al. (2000) conducted a study on the link between school and teacher characteristics, student demographics, and student achievement. The study looked at 4th-grade students in the public schools in North Carolina. Achievement scores for mathematics and reading as measured by the end-of-grade test were obtained. The Pearson correlation coefficient was used to answer the research questions raised. Research question 2 addressed the relationship between selected teacher characteristics and mathematics and reading achievement scores. The teacher characteristics included were teacher education and experience. Results showed that there was a relationship between teacher education level at master's degree and achievement in mathematics but not in reading. There was also a significant relationship between teachers with 10 years of service and student achievement in mathematics and reading.

A study was also conducted by Okoye, Momoh, Aigbomian, and Okecha (2008) to discover teachers' quality, instructional strategies, and students' performance in secondary school science. The study used 120 students doing science and 12 biology teachers randomly selected from six secondary schools in Nigeria. In each school, a professional teacher and a non-professional teacher were chosen to each teach 10 students for 2 weeks, and then a genetic objective achievement test was administered to the students for 30 minutes. The results showed that students taught by professional teachers did much better than students taught by non-professional teachers.

Community Support

Community support included government, the responsible authority—in this case

the Seventh-day Adventist church—district education officer, the regional officer, parents, and the business community.

Community support is one of the characteristics of effective schools (Payne, 2002; Zigarelli, 1996). Community support in the developing world is mainly providing labor to the school and molding bricks for building the school. Community involvement in the developing world should include school construction activities, monitoring pupils, monitoring teachers, community-teacher collaboration, school committee strength, and parent-teacher-association strength.

Dowd (2001) conducted a study to investigate the role of teacher qualifications, instructional practice, and community support for education in standard 2 pupil math gain scores. This was a multi-level modeling research. This means that the data were collected in two stages and comparison of the results made to see the change over time. In February 1999 the students had a curriculum-based pretest to measure achievement. One thousand twenty-nine students in 65 schools were administered this test. In October 1999, a post-test was given parallel to the one given in February 1999. At this time 756 students received the test as some of them had transferred to other schools or dropped out of school. The students were also interviewed. The teachers also received tests in English and mathematics and interviews were done. The community and parents were interviewed in groups. The tests were given at the beginning and end to measure change over time. The results of the study showed that parents and community involvement influences student achievement. This is achieved by monitoring teacher absence and attendance and when there is collaboration between teachers and community members on issues of curriculum. The providing of labor to the school, school construction, and

maintenance did not improve the scores in math.

The report by the Ministries of Education and Higher Education (1996) indicated that effective supervision of principals and the teachers by the Ministry's Education Inspectors and Education Officers was not easy because of transport and shortage of vehicles.

Principal Support

Principal support is what I considered as administrative support in my questionnaire. The questions dwelt on the principal's leadership style and his involvement in the learning process of the student.

Marzano, Waters, and McNulty (2005) conducted a meta-analysis of research on school leadership. They examined a number of quantitative studies by reviewing them and summarizing them together. The study covered the period from 1978 to 2001. They also conducted a factor analysis of a survey that came from the meta-analysis, and this survey involved 650 building principals. The factor analysis described variability among the variables. Each study was analyzed by using a correlation between general leadership and student achievement. The study concluded that principals have a great impact on student achievement. Nettles and Herrington (2007) state that leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school.

Cotton (2003) did a review of literature about principals and student achievement. She reviewed 81 key research articles for the last 20 years and came up with 26 principal behaviors that contributed to student achievement. Some of these factors are safe and

orderly school environment. This is achieved by allowing the teachers to handle some of the disciplinary matters. These principals encourage all students to reach their learning potential by having high expectation for their students.

Cotton (2003) goes on to say that for the principals to affect academic achievement for the students they should be available to the teachers, students, and community when they are needed and they should visit the classroom to observe. The principal must be a good communicator to teachers, students, and the community. These principals also reach out to the parents and community. Principals in high-achieving schools work together with their staff to improve the school. They allow for professional development of their teachers. They also guard the instructional time and arrange for educational learning time beyond the school day.

Teacher Support

The items that were identified under teacher support were qualification, competence, commitment to work, expectations for their students, use of classroom time, and use of other teaching materials beside textbooks. I also identified under teacher support the teaching techniques, exposing their students to past examination papers, homework, and revision of tests taken.

Teachers must know what motivates students, according to Oliver (1995). The teacher will be able to improve performance if he motivates his students. Oliver states that the difference in effectiveness among schools results from the positive teacher expectations that students can reach high levels of achievement and from having a system of monitoring and assessing student performance. Fuller (1987) stated that there was a

positive relationship between the teacher expectation for higher pupil performance and actual achievement in the studies he reviewed.

Student Factors

Discipline or Behavior in Class

Discipline in this study refers to students' conduct in the classroom. It entails respect for teachers by the students. It also covers the respect the students have for each other. This factor included student absenteeism and tardiness. Absenteeism is prevalent, especially in the rural areas as the parents require these students to stay home and do chores, especially during the rainy season when they have to work in the fields.

Roesler (2009) conducted a study on principals' perceptions of the relationship between student behavior and classroom environment on student achievement. Three hundred and ten principals who have been working in education for a mean of 23 years were surveyed. The teachers came from high schools, middle schools, and elementary schools. The study is phase 1 of a larger study of principals as successful leaders. The questionnaires were open-ended questions.

The results of this study indicated that discipline is an important aspect of a good school. The principals felt that discipline in class allowed teachers to teach and students to learn. They felt that there were teachers who failed to manage students in their classes because of poor teacher-student relationship, for example, lack of trust and respect, unclear or low expectations of students, poor procedures (lack of planning, wasted class time, being disorganized), students engaged (boring lessons, lecture-only format, general lack of interest by teachers and students), and lack of experience. The principals strongly

felt that there was a relationship between discipline and student academic achievement. The principals mentioned that teachers need high and clear expectations of students' behavior. The teachers need to be consistent and fair in enforcement of the expectations. The teachers should be role models of these expectations.

In N. Ncube's (2004) study, the headmasters stated that the students in the rural areas missed school and some of them ended up dropping out of school. Some of the students had negative attitudes toward school. This all affected the learning of the students according to the headmasters.

Motivation for Learning

Motivation for learning is whether the students are enthusiastic about learning as shown by completing their homework and staying after school to consult with their teachers about what they did not understand. They are already thinking of the future and know what they want to do with their lives.

Talib, Luan, Azhar, and Abdullah (2009) conducted a qualitative study on uncovering Malaysian students' motivation to learning science. Three groups of research participants in Malaysia were chosen. The first group was students who had passed science subjects. The second group was experienced science teachers in Malaysian national schools, and the third group was experts in the field of science education. The researchers used interview techniques to obtain data.

The results from the students' responses indicated that there were internal and external factors contributing to successful learning of science. The internal factors included the students' need for learning strategies in order to succeed in science. This

included attention in class, consistent revision of lessons and asking questions. Students also need to have the right attitude toward science. Students believed that they needed to have an interest in the subject and also an interest in learning. The students felt that they needed the ability or talent in learning science. This included having a competitive nature to be the best, and this serves as an internal drive to the students.

The students also needed external factors to learning. These included the family's involvement, interaction with others, and extra classes. Family involvement meant that the family actually helped them with their studies or found someone who is capable of helping them. Interaction with others meant communicating with friends and teachers about their work. Friends and teachers help clarify issues and also help motivate the students. Extra classes are given by the school or small groups where they get extra help.

The teachers' and the lecturers' responses indicated that the students needed to possess high levels of curiosity, always ask questions, have a drive to study, think critically and creatively, and have full support from their parents.

Ormrod's (2008) study on how motivation affects learning and behavior stated that it directs behavior toward particular goals, leads to increased effort and energy, increases initiation of and persistence in activity, affects cognitive processes, determines which consequences are reinforcing, and enhances performance leading to improved performance.

Atkinson (2000) completed a study on the relationship between teacher motivation and student motivation at four schools in Northeast England. He discovered that there is a possible link between teacher motivation and student motivation. He found a relationship between student motivation and student academic achievement. Zigarelli

(1996) in his study concluded that student ability and effort affected student academic achievement.

Physiological Needs

Under physiological needs, I investigated the nutritional status of the students at their schools. I wanted to find out also whether these students were dressed adequately for the weather. Some of these students live far from the school campus and I needed to know whether they had enough rest before coming to school the following day.

Murphy (2007) looked at previous studies of school breakfast up to 1999. School breakfast is the breakfast served at school. These studies showed decreased rates of absence in schools that participated in breakfast programs. One of the studies showed an improvement in mathematics grades in those students who participated in the program. Participation in the school breakfast program also improved mental health and behavior. Murphy (2007) also looked at city, state, and non-U.S. school breakfast studies from 1999 to 2004. Schools in England that participated in school breakfast clubs found that in 3 months after the start of the program, students had significantly better scores on a cognitive test of concentration than did students who did not participate in the school breakfast club. The Baltimore report, Maryland Year 3 report, and the Minnesota report all found an improvement in the standardized test scores of the students participating in the program. School breakfast programs also improved attendance, tardiness, behavior, mood, and health.

Fuller (1987) states that poor health from malnutrition and hunger contributes to poor student academic achievement. The report of the World Bank (2000) also states that

the children in the rural areas of Africa have poor nutrition.

Summary of the Chapter

This chapter presented the history of education in Zimbabwe from the colonial period to Smith's government, to the coalition government, and to the majority rule in 1980. There was an enrollment explosion after independence that necessitated employment of untrained teachers and using teachers from other countries. The enrollment explosion also meant that more buildings were needed to house these students. Primary schools were used, and many secondary schools mushroomed in the rural areas to accommodate these students. The study also looked at the education system in the Seventh-day Adventist church with particular interest in the secondary schools.

Studies of past literature were done looking in particular at variables that improve student academic performance such as transportation, school facilities, curriculum, climate, teacher professional development, community support, administrative support, and teacher support. This review also examined the student factors that affect student performance such as discipline, motivation, and physiological needs.

CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to investigate the perceptions of teachers regarding the factors that affect student performance in Seventh-day Adventist secondary schools in Zimbabwe. The variables were divided into two categories: student support factors and student factors. The student support factors included transportation, school facility, curriculum, climate, teacher professional development, community support, administrative support, and teacher support. The student factors included student discipline, student motivation, and student physiological needs. Demographic questions were also included about the teacher and the school. A questionnaire was developed by looking into past research literature about effective schools. The paper presented by the Education Director, W. Ncube (1998), was also incorporated into the questionnaire. The questionnaire was then sent to some of the Zimbabwean teachers now living in the United States of America and to those who worked closely with the teachers while they were still in Zimbabwe. They were to verify the relevance of the questionnaire to the Zimbabwean situation.

This chapter presents (a) a description of the population and sample size, (b) the design of the study, (c) the instruments that were used, (d) the pilot study, (e) permission

to conduct the research, (f) research questions and the null hypotheses, (g) the collection of data, (h) the data analysis, and (i) the summary of the chapter.

Population and Sample

The population for this study consisted of all teachers in the Seventh-day Adventist secondary schools in Zimbabwe. There are 25 secondary schools with a total of 454 secondary school teachers. These schools are located in different regions of the country administered by different conferences of the Seventh-day Adventist church. To foster a high response rate, all the schools and teachers were invited to participate in the study. There are 10 schools in East Zimbabwe Conference, 6 schools in Central Zimbabwe Conference, and 9 schools in West Zimbabwe Conference. There are 10 regions in Zimbabwe, but the Seventh-day Adventist Church has schools in only 8 regions. Harare region and Mashonaland West have no secondary school. The East Zimbabwe Conference is composed of Manicaland, Mashonaland East, Mashonaland West, Mashonaland Central, and Harare regions. The Central Zimbabwe Conference is made up of the Midlands and Masvingo regions. The West Zimbabwe Conference is made up of the Bulawayo, Matabeleland North, and Matabeleland South regions.

Of the 25 secondary schools, there are 5 boarding schools and 20 day schools. The 5 boarding schools used to be under the authority of the Zimbabwe Union Conference but changed to be under the local conferences. Table 6 shows the breakdown of the schools by regions, the type of school, the number of teachers, the enrollment, and the student/teacher ratio.

Table 6

Breakdown of Anticipated Sample by Region

Region	Total schools	Boarding schools	Day schools	Teachers	Enrollment	Teacher/student ratio
Bulawayo	2	0	2	44	846	1:19
Manicaland	7	1	6	128	3,644	1:28
Mashonaland						
East	2	0	2	37	588	1:16
Matabeleland						
North	5	0	1	71	2,013	1:28
Matabeleland						
South	2	1	1	38	868	1:23
Midlands	5	3	2	100	1,984	1:20
Masvingo	1	0	1	14	375	1:27
Mashonaland						
Central	1	0	1	22	900	1:41
Total	25	5	20	454	11,218	1:25

The questionnaire was sent to all 454 teachers in all the schools in all the regions. As it turned out, only 164 teachers returned the questionnaires, representing a response rate of 36%. The questionnaires were sent to eight regions, and only five regions returned them, representing a response rate of 63% by regions. The regions that returned the questionnaires included Manicaland, Matabeleland North, Matabeleland South, Midlands, and Bulawayo. The schools in these regions included rural, urban, and schools in the farming areas. There were no schools in the growth point. The responses also included day and boarding schools. There were 12 schools that responded, constituting a 48% response rate by schools.

Design of the Study

The study investigated the perceptions of teachers on systemic factors that affect student academic performance. A quantitative study using the survey method was used in order to compare the means of different groups. The variables in this study were student support factors and student factors as related to academic performance. The subsections under student support factors were transportation, school facility, curriculum, climate, teacher professional development, community support, administrative support, and teacher support.

Students are free to choose their schools of interest, and, as a result, some of the children would need to be transported to their schools. Some of the students have no choice at all, especially in the rural areas. This means they have to walk a long way to school, since there is no transport in the rural areas.

Under the school facilities, I looked at what was available at the school to make learning easier for the child. Some of the schools have a limited supply of library books, and some of them have no libraries at all. The students have no place to go to study during their free time. They have to use the classrooms.

The curriculum factors dealt mainly with such resources as textbooks, syllabus, school supplies, and time to complete the syllabus. In this section I also looked at the support from the teachers by giving students study time and by giving them extra lessons when students need them.

Climate included rules, teamwork in the school, teacher and principal relationships, teacher absenteeism, and morale. In this section I also looked at the teacher turnover and discipline problems.

Another section looked at professional development for the teachers offered by the government and the responsible authority. Community support incorporated cooperation between the school and ministry of education, responsible authority, parents, and the business community. Administrative support was looking mainly at the principal's support of teachers in the school and of student learning.

Teacher support dealt with the way the teachers presented the material to the students and their preparedness to teach. I also looked at the availability of teaching resources to the teachers.

The subsections in the student factors were student discipline, student motivation, and student physiological needs. Under student discipline, I had questions on deportment in the classroom and in the school. I also had questions on student absenteeism. Under motivation, I studied the effort made by the students to achieve learning and their willingness to seek out ways to improve their learning.

Instrumentation

I developed a questionnaire to measure the teachers' perceptions on factors that affect student performance. The questionnaire was directed to school teachers in the Seventh-day Adventist church secondary schools. The instrument consists of three parts. The first part relates to the student support factors that affect student performance, and the second part addresses student factors that affect student performance. The student support factors include transportation, school facility, curriculum, school climate, teacher professional development, community support, administrative support, and teacher support. The second part of the questionnaire includes student discipline factors, student

motivation factors, and student physiological need factors. The last part consists of demographic questions for the teachers and questions about their schools. The questionnaires were sent in 2002 to the Zambesi Union Education officer with the Zambesi Union Treasurer and were returned by mail in 2004.

I examined previous research papers on effective schools (e.g., Boyer, 1996; Coding & Tucker, 2000; Jaggia, 1999; Kabba, 1996) and identified some of the factors that affect student academic performance.

I also examined the country of Zimbabwe and the report from the Education Officer of the Zimbabwe Union Conference and identified his concerns and included some of those in the questionnaire.

The teachers were to indicate in the questionnaire on a scale of 1 to 5 their responses where 1 is strongly disagree and 5 is strongly agree with the statement about the factors that affect student academic performance at their school.

The Cronbach alpha coefficient was used to measure the internal consistency of the instrument used. In most cases, the Cronbach alpha coefficient should be above .7, but when the items are less than 10, it is possible to have a Cronbach alpha coefficient less than .7 (Pallant, 2005).

Content Validity

The questionnaire was sent to Zimbabweans who used to be teachers or worked closely with the teachers while in Zimbabwe. Most of these people were in the Berrien Springs, Michigan, area and came to the United States of America as students at Andrews University or surrounding colleges. They were to look at the relevance of the questions to

the situation in Zimbabwe and to give a feedback on the clarity of the questions.

Respondents made their comments at the back of the questionnaire. They added what they thought was missing, and they also made corrections to the questions for clarity. All the returned questionnaires were carefully analyzed and adjustments were made where it was deemed necessary. Communication was done by telephone when I needed more clarification.

Permission to Conduct the Research

Permission was granted from Andrews University's Institutional Review Board to conduct this study in Zimbabwe. The education director of the Zambesi Union Conference was contacted and permission was granted in June 2000 to conduct the study in the Adventist Secondary Schools in Zimbabwe. The education officer in turn informed the local conferences about the study.

Research Questions and Null Hypotheses

The demographics chosen for this study were based on school characteristics, that is, the region, school location, school type, and source of light, as these are likely to make a difference in the academic performance of students and in teacher perception. I also looked at teacher characteristics because that also might affect the student academic performance. These include teacher's gender, teacher's age range, teacher's region of birth, teacher's church affiliation, teacher's years of service, teacher's qualifications, and teacher's years in the school. Some teachers teach away from their region of birth and it was important to find out whether they had different perceptions about the school where they teach.

Following are the research questions and their related null hypotheses:

Question 1: What student support factors that affect student academic performance do teachers perceive are manifested in their schools? The question was answered using descriptive statistics. The means were studied and factors perceived to be manifested in the schools were noted.

The null hypothesis for this question is listed as follows:

Null Hypothesis 1: There is no difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the (a) school region, (b) school location, (c) school type, (d) teacher's gender, (e) teacher's age range, (f) teacher's region of birth, (g) teacher's church affiliation, (h) teacher's years of service, (i) teacher's qualifications, (j) source of light at school, and (k) teacher's years in the school.

The null hypotheses numbers 1(a), 1(b), 1(e), 1(f), 1(h), 1(i), 1(j), and 1(k) were analyzed using the one-way analysis of variance in order to compare the means of the different groups. The null hypotheses 1(c), 1(d), and 1(g) were analyzed using the *t* test, since only two groups were being compared.

Question 2: What student factors that affect student academic performance do teachers perceive are manifested in their schools? The question was answered using descriptive statistics and the acceptable means were noted.

The null hypothesis for this question is as follows:

Null Hypothesis 2: There is no difference in the teachers' perceptions on student factors that affect student academic performance based on the (a) school region, (b) school location, (c) school type, (d) teacher's gender, (e) teacher's age range, (f) teacher's

region of birth, (g) teacher's church affiliation, (h) teacher's years of service, (i) teacher's qualifications, (j) source of light at school, and (k) teacher's years in the school.

The null hypotheses numbers 2(a), 2(b), 2(e), 2(f), 2(h), 2(i), 2(j), and 2(k) were analyzed using the one-way analysis of variance. This helped compare the mean differences of the different groups. The null hypotheses 2(c), 2(d), and 2(g) were analyzed using the independent *t* test.

Question 3: Taking into account the acceptable mean of 3.30 on a scale of 1 to 5, where 1 is "strongly disagree" and 5 is "strongly agree," which student support and student factors are not manifested in each school region? The question was answered using the descriptive statistics. The means of each section were analyzed and the important student support factors and student factors were considered lacking if they fell below the mean of 3.30. The threshold was obtained by finding two-thirds of the scale. Two-thirds was chosen because it is more than the midpoint and it avoids the neutral response.

Collection of Data

The survey questions were prepared at the Center for Statistical Services at Andrews University, in the United States. The questionnaires were put in one large envelope per school and addressed to that particular school. A cover letter was prepared to accompany the questionnaire, seeking consent from the teachers to participate in the study. The cover letters were put in the same envelope as the questionnaires. The cover letter also explained how the questionnaire should be filled out and what should be done after completion.

The package was given to the Union Treasurer of Zimbabwe Union Conference, who was visiting the United States. He gave the package to the Education Officer of the Union to distribute to the different schools. He was given instructions to give the questionnaires to principals to distribute during staff meeting time and to have the teachers fill in the questionnaire at their convenience. After completing the questionnaires, the teachers placed them in envelopes provided and delivered them to the school for dispatch to the Education Director in the Zimbabwe Union Conference. The Education Director sent the completed questionnaires to me by mail.

Data Analysis

The services of the Center for Statistical Services at Andrews University were used for the purpose of scoring the items. Descriptive statistics were run in order to compare the means and the standard deviations of each group. The acceptable mean was 3.30 on a scale of 1 to 5 where 1 was “strongly disagree” and 5 was “strongly agree.” The means indicate how much the teachers agree on whether their schools have systemic factors that affect student academic performance.

One-way analysis of variance was used to compare the means of different groups regarding the systemic factors that affect student performance in their schools. The *t*-test was used to calculate the difference in responses according to gender, church affiliation, and whether the school was a boarding or day school.

Summary

This chapter presented details of the population and sample, design of the study, instrumentation, pilot study, permission to conduct research, collection of data, data

analysis, and the research questions and the null hypotheses.

The population included 454 secondary school teachers and 25 schools. Respondents were 164 teachers and 12 schools. Only five regions participated in the study. The study used a quantitative survey design method looking at student support factors that included transportation, school facility, curriculum, school climate, teacher professional development, community support, administrative support, and teacher support. The study also looked at student factors that included discipline, motivation, and physiological factors.

The instrument was developed by me using ideas from the past research literature about effective schools. The questionnaire was sent to teachers who were of Zimbabwean origin living in Berrien Springs, Michigan, to check for relevancy. Permission to conduct the study was obtained from Andrews University's Institutional Review Board and the Education Director of the Zambesi Union Conference in Zimbabwe.

The questionnaires were sent to the Education Director for distribution to the secondary schools. The questionnaires were returned to the Education Director, who mailed them back to me. The services of the Center for Statistical Services at Andrews University were used for scoring the data. Four questions were addressed using descriptive statistics, and the 16 hypotheses were analyzed using one-way analysis of variance. Six hypotheses were analyzed using a *t* test.

CHAPTER IV

RESULTS

The purpose of this study was to investigate teachers' perceptions regarding the presence of systemic factors affecting student performance in the Seventh-day Adventist schools in Zimbabwe. The study focused on student support factors, which include transportation, school facility, curriculum, school climate, teacher professional development, community support, administrative support, and teacher support, and student factors, which include student discipline, student motivation, and student physiological needs.

This chapter presents the results of the perceptions of teachers regarding the presence of the systemic factors that affect student academic performance in their schools. The first section of this study relates to student support factors affecting student performance. The second section relates to student factors affecting student performance. The third section relates to demographic information.

Description of the Population and Sample

The population originally included all the secondary schools run by the Seventh-day Adventist Church in Zimbabwe. It turned out that only 12 schools out of 25 returned their questionnaires. These schools included the boarding schools and day schools. The schools were located in the rural areas, farms, and urban areas.

Table 7 presents the questionnaires that were sent out to different regions and the response rate by each region. Manicaland region schools that responded represented only 29% of those sent out. Mashonaland East, Masvingo, and Mashonaland Central did not respond.

Table 7

Breakdown of Returned Questionnaires by Region

Region	# schools	# Schools that responded	% response	# of teachers	Questionnaires returned
Bulawayo	2	1	50.0	44	11
Manicaland	7	2	28.6	128	24
Mashonaland East	2	0	0.0	37	0
Matabeleland North	5	4	80.0	71	43
Matabeleland South	2(1)	1	50.0	38	13
Midlands	5(3)	4	80.0	100	70
Masvingo	1	0	0.0	14	0
Mashonaland Central	1	0	0.0	22	0
No indication of region					3
Total		12		454	164

() indicates number of boarding schools that returned questionnaires.

Table 8 presents the breakdown of the population by gender. Fifty percent of the population consisted of males and 46% consisted of females. Four percent of the teachers who responded did not indicate their gender.

Table 9 gives the breakdown of the population by age range. The age ranges of 45-54 and 55-64 were collapsed, since the numbers of teachers in those ranges were few. The new age range was 45 and above. Twenty-one percent of the teachers in the schools that responded were under the age of 25; 48% were between the ages of 25-34. Twenty-

four percent are between the ages of 35-44, and 5% were 45 years and above.

Table 8

Breakdown of Returned Questionnaires by Gender

Gender	Number of teachers	Percentage
Male	83	50
Female	75	46
Missing data	6	4
Total	164	100

Table 9

Breakdown of Returned Questionnaires by Age Range

Age range	Number of teachers	Percentage
Under 25	34	21
25-34	78	48
35-44	39	24
45 and over	9	5
Missing	4	2
Total	164	100

Table 10 shows the breakdown of the population by years in the school. The ranges 11-15, 16-20, and 21+ were collapsed. The new range was 11 and above. Sixty-two percent have been in that particular school for 5 years and under. Twenty-four percent have been in the school between 6-10 years; 12% have been in the school for 11 years and above.

Table 10

Breakdown of Returned Questionnaires by Number of Years in the School

Years in school	Number of teachers	Percentage
0-5	102	62
6-10	39	24
11 and above	19	12
Missing data	4	2
Total	164	100

Table 11 shows the breakdown of the population by the region of birth.

Mashonaland East, Mashonaland West, and Mashonaland Central were all collapsed under Mashonaland because the number of teachers who responded were few and because all these regions are in Mashonaland. Twenty-seven percent of the teachers come from Midlands, 16% from Manicaland, 15% from Matabeleland North, 15% from Bulawayo, 10% from Masvingo, 6% from Matabeleland South, 7% from Mashonaland, and 2% from Harare.

Table 12 shows the breakdown by church affiliation. Seventy-one percent of the teachers are Seventh-day Adventists, and 24% come from other denominations. Five percent did not indicate their church affiliation.

Table 13 shows the breakdown of the population by years of service. Years of service in the ranges 16-20 and 21 and above were collapsed to 16 and above. Forty-three percent have served in the Seventh-day Adventist churches for a period of between 0-5 years. Twenty-seven percent have served for a period of between 6-10 years, 19% have served for a period of between 11-15 years, and 6% have served for between 16 years and above. Four percent of the teachers did not indicate their years of service.

Table 11

Breakdown of Returned Questionnaires by Region of Birth

Birth region	Number of teachers	Percentage
Harare	3	2
Manicaland	27	16
Mashonaland	11	7
Matabeleland North	24	15
Matabeleland South	10	6
Midlands	44	27
Masvingo	16	10
Bulawayo	25	15
Missing data	4	2
Total	164	100

Table 12

Breakdown of Returned Questionnaires by Church Affiliation

Church affiliation	Number of teachers	Percentage
Seventh-day Adventist	116	71
Non-Seventh-day Adventist	40	24
Missing data	8	5
Total	164	100

Table 14 shows the breakdown of the population by teacher qualifications. The teacher qualifications of Master's and equivalent and doctorate and equivalent were collapsed to Master's and above. Fourteen percent of these teachers do not have training, and 51% of the teachers graduated with a teacher training certificate. Twenty-three percent of the teachers had a Bachelor's degree, while 7% have a Master's degree and above. Five percent of the teachers opted not to indicate their education level. The one

Table 13

Breakdown of Returned Questionnaires by Years of Service

Years of service	Number of teachers	Percentage
0-5	71	43
6-10	45	27
11-15	31	19
16 and above	10	6
Missing data	7	4
Total	164	100

Table 14

Breakdown of Returned Questionnaires by Qualifications

Qualifications	Number of teachers	Percentage
Below teacher training	23	14
B.A.	38	23
Master's and above	11	7
Missing data	8	5
Total	164	100

person who has the doctorate degree was combined with the ones who have Master's and coding was changed to indicate that.

Reliability Test

The teachers' perception on systemic factors affecting student performance scale had a Cronbach's alpha coefficient of .92. Taking into consideration each sub-scale, the

reliability coefficients are shown in Table 15. Pallant (2005) stated that the Cronbach's alpha coefficient should be above .70. She also states that the Cronbach's alpha values are sensitive to the number of items in the scale. Scales with fewer than 10 items usually have a Cronbach's alpha scale of less than .70. In this study, the transportation factor had a Cronbach's alpha coefficient of .61, teacher professional development had a Cronbach's alpha scale of .64, student discipline had a Cronbach's alpha scale of .69, and student physiological needs had a Cronbach's alpha scale of .64. All the items with a Cronbach alpha coefficient of less than .7 had less than 10 items. Transportation factor had two items, teacher professional development had three items, student discipline had six items, and physiological needs had six items.

Some of the items in the questionnaire were worded negatively to prevent response bias. These questions were recoded by reversing the 5-point Likert-type scale. The questions affected by this were 1, 11, 14, 29, 30, 32, 70, 71, 72, 73, and 83. The means and standard deviations of each group in the sample were obtained using descriptive statistics. The *t* tests and the Analysis of Variance (ANOVA) were used to compare the means of different groups on the perceptions of teachers regarding the systemic factors affecting student performance in the Seventh-day Adventist schools in Zimbabwe.

Research Questions and Related Null Hypotheses

In this section, the research questions and the related hypotheses will be addressed. Question 1, 2, and 3 were answered using descriptive statistics. For the related hypotheses for research questions 1 and 2, one way ANOVA and *t*-test were used.

Table 15

Reliability Test

Factor	Number of Items scale	Cronbach's alpha
Transportation	2	.61
School facility	7	.71
Curriculum	12	.71
School climate	11	.73
Teacher professional Development	3	.64
Community support	10	.84
Administrative support	9	.80
Teacher support	13	.85
Student discipline	6	.69
Student motivation	6	.85
Student physiological needs	6	.64
Total Scale	85	.92

Student Support Factors

Question 1

What student support factors that affect student academic performance do teachers perceive as manifested in their schools?

The student support factors and the related means are presented in Table 16. A threshold of 3.30 must be obtained in order to declare a particular item as a factor that is manifested in the school. The threshold was obtained by finding two-thirds of the scale. Two-thirds was chosen because it is more than the midpoint and it avoids the neutral

response. Those factors that did not qualify were transportation, school facilities, and community support. The N values fluctuated because some of the teachers did not answer all the questions.

Table 16

Student Support Factors Mean Scores

Student support factors	<i>N</i>	<i>M</i>	<i>SD</i>
Transportation	158	2.95	.77
School facilities	159	3.10	.76
Curriculum factors	138	3.36	.48
School climate	152	3.40	.50
Teacher professional development	156	3.31	.72
Community support	135	3.02	.65
Administrative support	152	3.70	.52
Teacher support	147	4.00	.45

Hypotheses for Question 1

The following hypotheses address whether there are differences in perceptions on a number of demographic variables. They were tested in the null form using one-way analysis of variance and *t*-test. There are 11 null hypotheses for this question. They are numbered from 1(a) to 1(k).

Null Hypothesis 1(a): The null hypothesis was rejected ($F_{4, 156} = 6.12, p = .00$). There is a significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the school region.

Table 17 presents the ANOVA table with these results.

Table 17

ANOVA Table of Teachers' Perceptions of Student Support Factors by School Region

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	2.51	4	0.63	6.12	.00
Within groups	15.98	156	0.10		
Total	18.49	160			

Using Tukey Post Hoc test multiple comparison procedure (Table 18), the differences in the means were noted between Midlands, with a mean of 3.47, and Matabeleland North, with a mean of 3.22. The difference is also noted between Midlands, with a mean of 3.47, and Matabeleland South, with a mean of 3.13.

Null Hypothesis 1(b): The null hypothesis was retained ($F_{2, 158} = 2.24, p = .11$). There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the school location.

Table 19 presents the ANOVA table with these results.

Table 20 presents the group means by school location. The groups are not different from each other.

Null Hypothesis 1(c): The null hypothesis was retained ($t_{158} = 1.57, p = .12$). There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the type of school (Boarding: $M = 3.40, SD = 0.35$; Day school: $M = 3.32, SD = 0.32$).

Table 18

Tukey Post Hoc Test by Region of the School

Region	N	M	Manicaland	Matabeleland N.	Matabeleland S.	Midlands	Bulawayo
Manicaland	24	3.41	--				
Matabeleland N.	43	3.22	--	--			
Matabeleland S.	13	3.13	--	--	--		
Midlands	70	3.47	--	*	*	--	
Bulawayo	11	3.31	--	--	--	--	--
Total	161	3.36					

*Significant at <.01 level.

Table 19

ANOVA Table of Teachers' Perceptions of Student Support Factors by School Location

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.51	2	0.26	2.24	.11
Within groups	17.98	158	0.11		
Total	18.49	160			

Table 20

Group Means by School Location

School location	<i>N</i>	<i>M</i>	<i>SD</i>
Urban	16	3.52	0.30
Rural	123	3.34	0.34
Farm	22	3.31	0.36
Total	161	3.36	0.34

Null Hypothesis 1(d): The null hypothesis was retained ($t_{156} = 1.29, p = .20$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' gender (Male: $M = 3.38, SD = 0.31$; Female: $M = 3.31, SD = 0.35$).

Null Hypothesis 1(e): The null hypothesis was retained ($F_{3, 156} = 0.54, p = .66$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' age range. Table 21 presents the ANOVA table with these results. The means of the groups

are presented in Table 22. These means are not different from each other.

Table 21

ANOVA Table of Teachers' Perceptions of Student Support Factors by Age Range

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.19	3	0.06	0.54	.66
Within groups	18.28	156	0.12		
Total	18.47	159			

Table 22

Means of Teachers' Responses According to Age Range

Age range	<i>N</i>	<i>M</i>	<i>SD</i>
Under 25	34	3.30	0.34
25-34	78	3.36	0.30
35-44	39	3.40	0.40
45 and over	9	3.32	0.39
Total	160	3.36	0.34

Null Hypothesis 1(f): The null hypothesis was retained ($F_{7, 146} = 0.91, p = .51$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' birth region. Table 23 presents the ANOVA table with these results. Table 24 presents the means of the teachers' responses by birth region. The groups are not different from each other.

Table 23

ANOVA Table of Teachers' Perceptions of Student Support Factors by Region of Birth

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.75	7	0.11	0.91	.51
Within groups	17.18	146	0.12		
Total	17.93	153			

Table 24

Means of Teachers' Responses by Birth Region

Birth region	<i>N</i>	<i>M</i>	<i>SD</i>
Harare	3	3.42	0.40
Manicaland	27	3.44	0.28
Masonaland	11	3.41	0.22
Matabeleland North	24	3.32	0.38
Matabeleland South	10	3.30	0.28
Midlands	44	3.37	0.32
Masvingo	16	3.42	0.40
Bulawayo	25	3.23	0.39
Total	160	3.36	0.34

Null Hypothesis 1(g): The null hypothesis was retained ($t_{154} = -.10, p = .93$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' church affiliation (SDA: $M = 3.35, SD = 0.33$; Non-SDA: $M = 3.35, SD = 0.33$).

Null Hypothesis 1(h): The null hypothesis was retained ($F_{3, 153} = 0.89, p = .45$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' years of service. Table 25 presents the ANOVA table with these results. Table 26 presents the means of the teachers' responses by years of service. The means of the teachers' responses are not different from each other.

Table 25

ANOVA Table of Teachers' Perceptions of Student Support Factors by Years of Service

Source of variance	SS	df	MS	F	p
Between groups	0.31	3	0.10	0.89	.45
Within groups	17.67	156	0.12		
Total	17.98	156			

Null Hypothesis 1(i): The null hypothesis was retained ($F_{3, 152} = 2.02, p = .11$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' qualifications. Table 27 presents the ANOVA table with these results. Table 28 presents the means of the teachers' responses by qualifications showing that they are not different from each other.

Table 26

Means of Teachers' Responses by Years of Service

Years of service	<i>N</i>	<i>M</i>	<i>SD</i>
0-5	71	3.35	0.31
6-10	45	3.32	0.33
11-15	31	3.44	0.35
16 and above	10	3.35	0.54
Total	157	3.36	0.34

Table 27

ANOVA Table of Teachers' Perceptions of Student Support Factors by Qualification

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.68	3	0.23	2.02	.11
Within groups	17.03	152	0.11		
Total	17.71	155			

Table 28

Means of Teachers' Responses by Qualification

Qualification	<i>N</i>	<i>M</i>	<i>SD</i>
Below teacher training	23	3.34	0.27
Teacher training	84	3.31	0.34
B.A.	38	3.41	0.35
Master's and above	11	3.55	0.37
Total	156	3.36	0.34

Null Hypothesis 1(j): The null hypothesis was rejected ($F_{2, 158} = 3.65, p = .03$).

There is a significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the school's source of light. Table 29 presents the ANOVA table with these results.

Table 29

ANOVA Table of Teachers' Perceptions of Student Support Factors by Source of Light

Source of variance	SS	df	MS	F	p
Between groups	0.82	2	0.41	3.65	.03
Within groups	17.67	158	0.11		
Total	18.49	160			

The Tukey Post Hoc test multiple comparison procedure, Table 30, shows that the difference in the perception of teachers on the presence of student support factors that affect student academic performance comes from teachers in the schools with electricity, with a mean of 3.40, and teachers coming from schools with another source of light, with a mean of 3.23. Although the mean for electricity is higher than the mean for the solar system, there is no significant difference between the two.

Null Hypothesis 1(k): The null hypothesis was retained ($F_{2, 157} = 0.13, p = .88$).

There is no significant difference in the teachers' perceptions on the presence of student support factors that affect student academic performance based on the teachers' years in the school. Table 31 presents the ANOVA table with these results. Table 32 presents the means of the teachers' responses by the teachers' number of years in the school.

Table 30

Tukey Post Hoc Test of Teachers' Responses by Source of Light

Source of light	<i>N</i>	<i>M</i>	Electricity	Solar	Other
Electricity	115	3.40	--		
Solar System	11	3.29	--	--	
Other	35	3.23	*	--	--
Total	161	3.36			

* Significant at <.05 level.

Table 31

ANOVA Table of Teachers' Perceptions of Student Support Factors by Years in the School

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.03	2	0.02	0.13	.88
Within groups	18.44	157	0.12		
Total	18.47	159			

Table 32

Means of Teachers' Responses by Years in the School

Years in the school	<i>N</i>	<i>M</i>	<i>SD</i>
0-5	102	3.37	0.34
6-10	39	3.33	0.37
11 and over	19	3.35	0.32
Total	160	3.36	0.34

Student Factors

Question 2

What student factors that affect student academic performances do teachers perceive as manifested in their schools?

The student factors and their related means are presented in Table 33. A minimum of 3.30 must be obtained in order to declare a particular element as manifested in the school. The table shows that discipline and motivation are manifested in the schools. The physiological need had a mean score of 3.03 and therefore was considered as not manifested in the schools.

Table 33

Student Factors Mean Scores

Student factors	<i>N</i>	<i>M</i>	<i>SD</i>
Discipline	154	3.35	0.63
Motivation	156	3.30	0.70
Physiological needs	15	3.03	0.62

Hypotheses for Question 2

Research question 2 has 11 hypotheses (2(a) to 2(k)). The first part of question 2 was answered by using descriptive statistics, and the hypotheses were analyzed using inferential statistics.

Hypothesis 2(a): The null hypothesis was rejected ($F_{4, 156} = 21.47, p = .00$).

There is a significant difference in the teachers' perceptions on the presence of student

factors that affect student academic performance based on the school region. Table 34 presents the ANOVA table with these results.

Table 34

ANOVA Table of Teachers' Perception of Student Factors by School Region

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	14.70	4	3.68	21.47	.00
Within groups	26.70	156	0.17		
Total	41.40	160			

Table 35 shows the means of teachers' responses by school region. The Tukey Post Hoc test shows the differences to be between Manicaland with a mean of 3.13 and Matabeleland North with a mean of 2.78. The difference is also noted between Midlands with a mean of 3.48 and Manicaland with a mean of 3.13. The difference is also between Bulawayo with a mean of 3.59 and Manicaland with a mean of 3.13. The difference is also between Matabeleland South with a mean of 3.24 and Matabeleland North with a mean of 2.78. The difference is also noted between Midlands with a higher mean than Matabeleland North and between Bulawayo with a higher mean than Matabeleland North.

Null Hypothesis 2(b): The null hypothesis was rejected ($F_{2, 158} = 14.18, p = .00$). There is significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the school location. Table 36 presents the ANOVA table with these results.

Table 35

Tukey Post Hoc Test of Teachers' Responses by School Region

School Region	<i>N</i>	<i>M</i>	<i>SD</i>	Manicaland	Matabeleland N.	Matabeleland S.	Midlands	Bulawayo
Manicaland	24	3.13	0.43	--				
Matabeleland N.	43	2.78	0.36	*	--			
Matabeleland S.	13	3.24	0.38	--	*	--		
Midlands	70	3.48	0.45	*	*	--	--	
Bulawayo	11	3.59	0.35	*	*	--	--	--
Total	161	3.23	0.51					

* Significant at <.05 level.

Table 36

ANOVA Table of Teachers' Perceptions of Student Factors by the Location of the School

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	6.30	2	3.15	14.18	.00
Within groups	35.11	158	0.22		
Total	41.41	160			

Table 37 shows the means of teachers' responses by school location. The Tukey Post Hoc test shows the difference to lie between urban and rural schools, and urban and farm school.

Table 37

Tukey Post Hoc Test of Teachers' Responses by School Location

School location	<i>N</i>	<i>M</i>	Urban	Rural	Farm
Urban	16	3.77	--		
Rural	123	3.13	*	--	
Farm	22	3.37	*	--	--
Total	161	3.23			

* Significant at <.01 level.

Null Hypothesis 2(c): The null hypothesis was rejected ($t_{158} = 6.10, p = .00$).

There is a significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the school type

(Boarding: $M = 3.46, SD = 0.48$; Day: $M = 3.02, SD = 0.44$).

Null Hypothesis 2(d): The null hypothesis was retained ($t_{156} = 1.20, p = .24$).

There is no significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' gender (Male: $M = 3.27, SD = 0.48$; Female: $M = 3.17, SD = 0.54; p = .24$). The male and female teachers see things alike when it comes to the student factors that affect student performance.

Null Hypothesis 2(e): The null hypothesis was retained ($F_{3, 156} = .86, p = .47$).

There is no significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' age range. Table 38 presents the ANOVA table with these results. Table 39 presents the means of the teachers' responses by age range. The means are not different from each other.

Table 38

ANOVA Table of Teachers' Perceptions of Student Factors by Age Range

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.67	3	0.22	0.86	.47
Within groups	40.59	156	0.26		
Total	41.26	159			

Null Hypothesis 2(f): The null hypothesis was rejected ($F_{7, 146} = 2.41, p = .02$).

There is a significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' birth region.

Table 40 presents the ANOVA table with these results. Table 41 shows the means of the groups and some of them are different from each other.

Table 39

Mean Teachers' Responses by Age Range

Age range	<i>N</i>	<i>M</i>	<i>SD</i>
Under 25	34	3.14	0.59
25-34	78	3.22	0.49
35-44	39	3.26	0.51
45 and over	9	3.43	0.32
Total	160	3.22	0.51

Table 40

ANOVA Table of Teachers' Perceptions of Student Factors by Region of Birth

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	4.23	7	0.61	2.41	.02
Within groups	36.65	146	0.25		
Total	40.88	153			

The Tukey Post Hoc test (Table 42) shows the differences to be between the Bulawayo and Midlands region. The mean for Midlands is 3.37 and the mean for Bulawayo is 2.97.

Null Hypothesis 2(g): The null hypothesis was retained ($t_{154} = 0.27, p = .79$). There is no significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' church affiliation (SDA: $M = 3.22, SD = 0.50$; non-SDA: $M = 3.20, SD = 0.54$).

Table 41

Means of Teachers' Responses by Region of Birth

Region of birth	<i>N</i>	<i>M</i>	<i>SD</i>
Harare	3	3.17	0.53
Manicaland	27	3.28	0.45
Mashonaland	5	3.46	0.18
Matabeleland North	24	3.02	0.62
Matabeleland South	10	3.28	0.42
Midlands	44	3.37	0.47
Masvingo	16	3.35	0.61
Bulawayo	25	2.97	0.47
Total	154	3.23	0.52

Null Hypothesis 2(h): The null hypothesis was retained ($F_{3, 153} = 0.10, p = .96$).

There is no significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' years of service. Table 43 presents the ANOVA table with these results. Table 44 presents the means as per years of service.

Null Hypothesis 2(i): The null hypothesis was rejected ($F_{3, 152} = 2.84, p = .04$).

There is a significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' qualification. Table 45 presents the ANOVA table with these results.

Table 42

Tukey Post Hoc Test of Teachers' Responses by Region of Birth

Region	Harare	Manicaland	Mashonaland	Matabeleland North	Matabeleland South	Midlands	Masvingo	Bulawayo
Harare	--							
Manicaland	--	--						
Mashonaland	--	--	--					
Matabeleland N.	--	--	--	--				
Matabeleland S.	--	--	--	--	--			
Midlands	--	--	--	--	--	--		
Masvingo	--	--	--	--	--	--	--	
Bulawayo	--	--	--	--	--	*	--	--
Total								

* Significant at <.05 level.

Table 43

ANOVA Table of Teachers' Perceptions of Student Factors by Years of Service

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.08	3	0.03	0.10	.96
Within groups	39.59	153	0.26		
Total	39.67	156			

Table 44

Means of Teachers' Responses by Years of Service

Years of service	<i>N</i>	<i>M</i>	<i>SD</i>
0-5	71	3.21	0.52
6-10	45	3.23	0.51
11-15	31	3.23	0.50
16 and over	10	3.30	0.43
Total	157	3.23	0.50

Table 45

ANOVA Table of Teachers' Perceptions of Student Factors by Qualification

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	2.15	3	0.72	2.84	.04
Within groups	38.28	152	0.25		
Total	40.43	155			

Table 46 presents the means of teachers' responses by their qualifications. The Tukey Post Hoc test shows the difference to lie between the responses of those teachers with teacher training and those with a Master's degree or doctorate.

Table 46

Means of Teachers' Responses by Qualifications

Teacher qualifications	<i>N</i>	<i>M</i>	Below teacher training	Teacher training	B.A.	Master's or higher
Below teacher training	23	3.25	--			
Teacher training	84	3.13	--	--		
B.A.	38	3.32	--	--	--	
Master's or higher	11	3.55	--	*	--	--
Total	156	3.22				

* Significant at <.05 level.

Null Hypothesis 2(j): The null hypothesis was rejected ($F_{2, 158} = 25.62, p = .00$).

There is a significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the school's source of light.

Table 47 presents the ANOVA table with these results.

Table 47

ANOVA Table of Teachers' Perceptions of Student Factors by Source of Light

Source of variance	SS	df	MS	F	p
Between groups	10.14	2	5.07	25.62	.00
Within groups	31.27	158	0.20		
Total	41.41	160			

Table 48 presents the means of teachers' responses by source of light. Using the Tukey Post Hoc test, the difference lies in the schools with electricity and those with solar system and also from those schools with electricity and those with other means as the source of light.

Table 48

Tukey Post Hoc Test of Teachers' Responses by Source of Light

Source of light	N	M	SD	Electricity	Solar	Other
Electricity	115	3.38	0.47	--		
Solar System	11	2.64	0.43	*	--	
Other	35	2.91	0.35	*	--	--
Total	161	3.23	0.51			

* Significant at <.01 level.

Null Hypothesis 2(k): The null hypothesis was retained ($F_{2, 157} = 0.54, p = .58$). There is no significant difference in the teachers' perceptions on the presence of student factors that affect student academic performance based on the teachers' years in the

school. Table 49 presents the ANOVA table with these results. The means of teachers' responses according to the years in the school are shown in Table 50. The means are not different from each other.

Table 49

ANOVA Table of Teachers' Perceptions of Student Factors by Years in the School

Source of variance	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Between groups	0.28	2	0.14	0.54	.58
Within groups	40.98	157	0.26		
Total	41.26	159			

Table 50

Means of Teachers' Responses by Number of Years in the School

Years of in the school	<i>N</i>	<i>M</i>	<i>SD</i>
0-5	102	3.26	0.55
6-10	39	3.17	0.43
11 and over	19	3.17	0.46
Total	160	3.22	0.51

Question 3

Taking into account the acceptable mean of 3.30 on a scale of 1 to 5 where 1 is “strongly disagree” and 5 is “strongly agree,” which student support and student factors are not manifested in each school region?

Student Support Factors

Table 51 indicates that all the regions have inadequate transportation and lack community support. Transportation in Matabeleland South is the worst with a mean of 2.46. The Bulawayo region has the worst community support with a mean of 2.69. The Midlands is the only region with good facilities.

Not all the regions have acceptable means for curriculum. Manicaland has a mean of 3.18, and Matabeleland North has a mean of 3.27. The regions that do not have acceptable means for school climate are Matabeleland South, with a mean of 2.98, and Matabeleland North, with a mean of 3.22. Matabeleland North, Matabeleland South, and Bulawayo regions lack acceptable means for professional development. Their means are 2.93, 3.18, and 3.12 respectively. Matabeleland South is the only region with a mean for the administrative support that is not acceptable. All the schools have great teacher support, with an average mean of 4.01.

Student Factors

Table 52 shows that student discipline problems are not manifested in Manicaland, Matabeleland North, and Matabeleland South. The means for these regions are 3.22, 2.99, and 3.29 respectively. Motivation is not manifested in Matabeleland North and Matabeleland South, with means of 2.75 and 3.22, respectively. Physiological needs pose the greatest concern in student factors. Only Bulawayo region has an acceptable mean of 3.40.

Table 51

Means of Student Support Factors by Regions

Region	Transportation	Facility	Curriculum	School climate	Professional development	Community support	Administrative support	Teacher support
Manicaland	3.10	2.89	3.18	3.54	3.66	3.05	3.80	4.04
Matabeleland North	3.27	2.68	3.27	3.22	2.93	2.78	3.63	3.95
Matabeleland South	2.46	3.22	3.47	2.98	3.18	2.70	3.21	3.86
Midlands	2.80	3.37	3.45	3.54	3.49	3.26	3.80	4.06
Bulawayo	2.86	3.29	3.39	3.39	3.12	2.69	3.81	4.00
Total	2.94	3.10	3.36	3.40	3.32	3.02	3.71	4.01

Table 52

Means of Student Factors by Regions

Region	Discipline	Motivation	Physiological needs
Manicaland	3.22	3.36	2.81
Matabeleland North	2.99	2.75	2.59
Matabeleland South	3.29	3.22	3.22
Midlands	3.58	3.57	3.28
Bulawayo	3.65	3.72	3.40
Total	3.35	3.30	3.03

Summary of the Chapter

Chapter 4 considered the three questions: (a) the support factors that are manifested in the schools, (b) the student factors that are manifested in the schools, and (c) taking into account the acceptable mean of 3.30 on a scale of 1 to 5 where 1 is “strongly disagree” and 5 is “strongly agree,” which student support factors are not manifested in the school and which student factors are not manifested in each school regions.

Chapter 4 also addressed the 11 hypotheses in each of the questions. For question 1, the factors that were perceived to be not manifested in the schools were transportation, school facilities, and community support. Curriculum, school climate, teacher professional development, administrative support, and teacher support were all perceived to be manifested in the schools. In this question, 2 of the 11 null hypotheses were rejected.

In question 2, the factor that was perceived not to be manifested was physiological needs. Motivation and discipline were perceived to be manifested in the schools. In this question, 6 of the 11 null hypotheses were rejected.

Question 3 showed that all the regions did not have transportation and community support as manifested in their schools. Manicaland region's transportation, good facilities, curriculum, community support, discipline, and physiological needs were not manifested. Matabeleland North region's transportation, good facilities, good curriculum, school climate, professional development, community support, discipline, motivation, and physiological needs were not manifested. Matabeleland South's transportation, good facilities, school climate, professional development, community support, administrative support, discipline, motivation, and physiological needs were not manifested. Midlands' transportation, community support, and physiological needs were not manifested. Bulawayo region's transportation, facility, professional development, and community support were not manifested.

CHAPTER V

SUMMARY, DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The summary, discussion of findings, conclusions, and recommendations are covered in this chapter. In the summary section, the problem, research methods, and research hypotheses are discussed, taking into consideration the results of the data analysis. The conclusion section covers the interpretation of the research findings. The recommendation section addresses further research that could be done to change the situation in the Adventist schools in Zimbabwe.

Background to the Problem

The education system in Zimbabwe has grown from 177 high schools before independence in 1980 to an explosive number with the addition of new high schools in the rural areas and in the cities after independence. Independence was achieved after much struggle and guerrilla warfare that left almost all the schools in the rural areas closed down. After independence, the new government had the task of opening up all these schools and accommodating all the children who had nowhere to go after completing their primary education. Education became free and compulsory for all the primary school children. This meant that a great number of students were ready to attend secondary schools.

The government requested that existing schools increase their enrollment to absorb some of the children who had nowhere to go. It also built schools under the authority of the District Councils. The government also devised hot-seating, which is an “arrangement by which half of the school population attends school in the morning and the other half attends in the afternoon” (Edwards & Tisdell, 1989, p. 58).

Enrollment in the primary schools went up from 819,586 in 1979 to 2,263,947 in 1986, representing an increase of 176%. In the secondary schools, although the education was not free, enrollment went up from 66,215 in 1979 to 537,427 in 1986, representing an increase of 711% (Dorsey, 1989, p. 46). The number of secondary schools increased from 177 in 1979 to 1,276 in 1986. However, with the increase in enrollment and in the number of schools, there was no increase in the number of trained teachers. The option was to use students who had passed the ‘O’ level examination to teach in primary and secondary schools.

The changes in the education system brought about changes in the performance of the students. The ‘O’ level pass rate fell drastically from 66.6% in 1980 to 11.4% in 1986. This was a decrease of 55.2%. The pass rate increased in 1997 to 19.19%, and in 1999 it went down to 15.36%.

The Adventist Church runs 25 secondary schools in Zimbabwe. According to the statistics received from the Education Officer of the Zimbabwe Union Conference, W. Ncube (personal communication, September 3, 2001), schools have seen a decline in the pass rates since independence in 1980. This trend is also seen even in the government schools according to the statistics received from the Acting Regional Director of Matabeleland North, D. Moyo (personal communication, July 8, 2000).

The Problem in Context

Before independence in 1980, the White government was faced with a large number of primary school graduates who could not be placed in any secondary school because of the limited number of secondary schools available. The selection process also picked up only those students who had excellent grades and those who could afford to pay the school tuition.

In 1966, the government devised a plan to build 300 2-year junior secondary schools to absorb all the primary school leavers. These schools were shunned by the students and the parents because they emphasized only vocational training, which they thought was inferior to the teaching done by the academic secondary schools. In 1980, the junior secondary schools were replaced by the more academic secondary schools. This meant that there was a large influx of students to these schools, but there were no trained teachers.

The government made a huge attempt to house the secondary school students. The problem that remained was that of teachers. The government utilized teachers from Australia, Britain, and Canada on a 3-year contract (Edwards & Tisdell, 1989). Dorsey (1989) mentioned that the government used primary trained teachers, non-graduate student teacher trainees, and untrained teachers to teach in the secondary schools. These made up 66.3% of all secondary school teachers (Dorsey, 1989). The government tried to upgrade these teachers by offering them in-service training using a combination of distance teaching and residential courses. The untrained graduate teachers could take a 1-year postgraduate certificate in secondary education over 2 years. The graduates from teachers' colleges could upgrade to degree status by taking a bachelor in education degree

part time over 3 years. After they completed this degree they could teach in secondary schools (Dorsey, 1989).

The distribution of school resources was also a problem. The government provided per-capita grants, paid teachers' salaries, and gave grants for construction. The per-capita grant was given on the basis of the enrollment and the grades of the students, regardless of where they came from. This grant was used to buy textbooks, supplies, and furniture. The governing authorities were responsible for all the other expenses, including school operating expenditures, capital development, and recurrent costs.

Schools in the rural areas have fewer students and hence receive fewer per-capita grants and therefore have limited resources. The parents in these areas are poor, mostly peasant farmers, and cannot afford to pay higher fees to upgrade their schools. The classrooms are poorly furnished, there is no running water or electricity, and therefore the children cannot conduct experiments. Usually the school does not have a library, and, if it has one, the books are not adequate.

The schools in the urban areas are different. Most of the parents of students who attend these schools can afford to pay fees. The schools have a higher enrollment and hence higher per-capita grant. There is electricity in the schools, there is running water, and the students can conduct experiments and are better exposed to the world. There is a library in the school, and, if not, the students can go to the libraries in the city.

The boarding schools are also different. There are electricity and running water. Experiments are conducted by the students. The students have a library in the vicinity. Students do not have to travel to school.

The problems that were faced by the education system in the country also troubled the schools in the Seventh-day Adventist church. Before independence, the Seventh-day Adventist church had only five boarding secondary schools run by the Zambezi Union Conference. The church had one day secondary school. After independence, as the government increased schools in the country, the church also had to increase its schools by opening up new secondary schools in the areas where they had primary schools. They later built up secondary schools. They used hot seating in the existing schools to accommodate all the students. By the year 2000, the church had 25 secondary schools, including boarding schools. Of these, 19 schools were under the authority of the three conferences—Central Zimbabwe Conference, East Zimbabwe Conference, and West Zimbabwe Conference—and 6 schools were under the authority of Zambezi Union Conference.

The church also had a problem with shortages of trained teachers and therefore utilized the services of untrained teachers in the secondary schools. This resulted in poor pass rates in these new schools. Surprisingly enough, some of the new schools did quite well compared to many of the older schools.

There was a noticeable difference in the pass rates in the different conferences. In 1996, East Zimbabwe Conference had a mean of 31% pass rate for all its schools. Central Zimbabwe Conference had a mean of 42%, and West Zimbabwe Conference had a mean of 16%. In 1999, Central Zimbabwe Conference had a mean of 42%, East Zimbabwe Conference had a mean of 33%, and West Zimbabwe Conference had a mean of 20%. Even after taking out the already established Union schools, the East Zimbabwe Conference had a mean pass rate of 26% in 1996 and 25% in 1999. The Central

Zimbabwe Conference had a mean pass rate of 18% in 1996 and a mean of 18% in 1999.

The West Zimbabwe Conference had a mean pass rate of 8% in 1996 and 8% in 1999.

This definitely showed that there was a disparity, and this concerned the Regional Director of Matabeleland North, D. Moyo (personal communication, July 8, 2000). This also concerned the Education Director of Zimbabwe Union Conference, W. Ncube (personal communication, June 21, 2000).

The Education Director speculated on the possible reasons for the high failure rate of the students in West Zimbabwe Conference secondary schools. These included

1. Unqualified and incompetent teachers
2. Low motivation among students, problems with student behavior and discipline, and students not equipped with effective study skills
3. Students not exposed to adequate examination preparation
4. Possible excessive drill and practice on previous examination papers at the expense of in-depth teaching on the basic concepts at primary levels
5. Lack of teaching materials and inadequate facilities, lack of exposure to examination techniques, and lack of skills on the part of teachers
6. Students coming from poor homes who are underfed, poorly clothed, and poorly equipped for meaningful learning
7. Walking long distances to school
8. Lack of cooperation between home and school and inadequate time to cover the syllabus.

The education system in Zimbabwe failed to meet the needs of the students because of the enrollment explosion faced by the government after independence (Lemon,

1995). There was a lack of school buildings to house all the students, lack of trained teachers, and inadequate resources in the schools. The government made all efforts to house the students by providing new schools, especially in the rural areas, using primary schools, introducing “hot-seating,” and increasing enrollment in the existing schools (Dorsey, 1989; Edwards & Tisdell, 1989). The government also used expatriate teachers and untrained teachers, and did on-the-spot training of teachers (Edwards & Tisdell, 1989).

Hoy and Hannum (1997) state that a healthy school should have harmony in the teaching, learning, administration of the school, and the community involvement. In the schools run by the Seventh-day Adventist church, there is no adequate transportation for the students, and there is not enough community support. Most of the students who come to these schools are not adequately fed at home, and the schools do not provide meals for them. In some of the schools, the students lack motivation to learn and are not disciplined enough.

An Overview of the Literature

Studies of effective schools have been done and important factors of effective schools cited. Boyer (1996) cites a sense of community within the school, centrality of language, curriculum with coherence, a climate for creative learning, and a climate that affirms the building of character for every student.

Coding and Tucker (2000) came up with the following recommendations for creating a high-quality academic program: (a) providing a safe, clean environment for everyone; (b) deciding on clear, high standards for students’ performance; (c)

developing a sequential curriculum for the academic core; (d) including in the curriculum of strands for students who are working below grade level in the core; (e) creating incentives for all students to take the courses; (f) developing a school climate and organization that produces strong, personal support for each student; (g) providing a strong support for every staff member to acquire the professional skill and knowledge needed to succeed in his or her job; (h) building of community services and supports for the students outside school; (i) developing a school leadership style that is inclusive; (j) helping parents to support their children in school; (k) having a school culture that focuses on results; (l) and communicating to all the high expectations for each student.

Fuller (1987) found a positive relationship between school resources and student achievement in the third world. Kabba (1996), in his study of Sierra Leone colleges and universities, found that educational amenities enhanced student learning. Hoy and Miskel (2001) stated that there was a positive relationship between building conditions and the achievement level of students.

The study investigated various factors that might affect student achievement in Zimbabwe. These included transportation of students to school, school facilities and resources, curriculum and learning materials, school climate, teacher professional development, community support, principal support, teacher support, discipline or behavior in class, motivation for learning, and physiological needs. Not much research has been done on transportation of students and student achievement, but the report from World Bank (2000) stated that the difficulty of getting to school affected student learning.

School facilities studies show that the availability of libraries, computers, desks, school building quality, and textbooks was related to student academic achievement but

that class size and science laboratories were not related to student achievement (Fuller, 1987; Hoy & Miskel 2001; World Bank, 2000).

Curriculum is an important factor in student learning according to Kabba (1996) and Johnson and Johnson (1996). Studies show that the availability of textbooks, teaching materials, study skills, use of past examination papers, study time, and school supplies affect study achievement (Fuller, 1987).

School climate was considered to be an important factor in student academic performance (Hoy & Hannum, 1997; Johnson & Johnson, 1996; Zigarelli, 1996). Under climate, I concentrated on positive spirit in the school, behavior of students, enforcement of rules, teamwork, morale, open communication, clear vision, teacher absenteeism, teacher turnover, and cleanliness in the school.

Studies show that there is no agreement as to whether teacher professional development does affect student achievement (Zigarelli, 1996). Some studies however indicate that there is a relationship of teacher professional development at some level to student academic performance. Fuller discovered that the length of post-secondary schooling or the number of teacher training courses completed affected student academic performance. Okpala et al. (2000) found that there is a relationship between teacher education and student academic performance at the Master's degree.

Studies of community support show that there is a relationship between community support and student academic achievement (Dowd, 2001; Ministry of Education and Higher Education, 1996).

Studies of effective schools show that administrative support does affect student academic achievement (Marzano et al., 2005). Teacher support studies are few, but

Fuller (1987) stated that there was a positive relationship between the teacher expectation for higher pupil performance and student academic achievement.

The student factors that affected student learning included discipline, motivation, and physiological needs. Roesler (2009) found a relationship between student discipline and student academic performance. There is also a relationship between student motivation and student academic achievement (Atkinson, 2000; Talib et al., 2009). Physiological needs seemed to be one of the important factors that affected student learning. Both Murphy (2007) and Fuller (1987) believe that nutrition is an important factor in student academic achievement.

Statement of the Problem

At the time of the study, a high failure rate existed in most of the secondary schools operated by the Seventh-day Adventist church in Zimbabwe. The difference was noted again when analyzing these pass rates according to conferences. There was a concern by the Education Officer of the Zimbabwe Union Conference, W. Ncube (personal communication, June 21, 2000), and the Regional Director of Matabeleland North, D. Moyo (personal communication, July 8, 2000), concerning the declining pass rates at that time. While there are studies (e.g., Kabba, 1996; Lezotte, 1992; Taylor, 2008; Zigarelli, 1996) examining factors related to academic performance, there has been a lack of such studies in Zimbabwe, particularly among Seventh-day Adventist schools.

The Purpose of the Study

The purpose of this study was to investigate teachers' perceptions regarding the presence of systemic factors affecting student academic performance in the Seventh-day

Adventist schools in Zimbabwe. The study looked at transportation, facilities, curriculum, school climate, professional development, community support, administrative support, and teacher support, and these were termed student support factors. The study also looked at the student characteristics that might affect their performance. These were discipline, motivation, and physiological needs and were termed student factors. Three questions were asked to achieve the purpose of the study and hypotheses were tested.

Methodology and Procedures

I used a quantitative research design. Permission was granted from the Education director of the Zambezi Union Conference to conduct the study in the Seventh-day Adventist schools in Zimbabwe. Permission was also granted by the Headmasters to give questionnaires to the teachers in their schools. Only 12 schools out of a total of 25 responded to the questionnaires.

From a review of effective school studies in both developed and third world countries and from the concerns from the Education Director of Zimbabwe Union Conference, I developed a questionnaire that was relevant to the situation of Zimbabwe. This questionnaire was tested for validity. The teachers' perception on systemic factors affecting student performance scale had a Cronbach's alpha coefficient of .92. The lowest coefficient for the different factors was .61, and it is noted that this particular factor had less than 10 items. This reliability coefficient falls within an acceptable range for a scale of that length according to Pallant (2005).

Three questions were posed and answered using descriptive statistics. Question 1 investigated which student support factors were manifested in the school. Question 2 was

to find out which student factors were manifested in the school. Question 3 looked at student support and student factors that were not manifested in each school region.

The null hypotheses were investigated using one-way analysis of variance and the independent-samples *t* test. Descriptive statistics were used to find out which factors were deficient in the different regions.

Findings and Discussion

A total of eight regions received the questionnaires, and five of them responded, representing 63% of the regions. The regions that returned the questionnaires and the number of schools, in parentheses, that returned questionnaires in each region were as follows: Bulawayo (1), Manicaland (2), Matabeleland North (4), Matabeleland South (1), and Midlands (4). There were no responses from the Mashonaland East, Masvingo, and Mashonaland Central regions. There are no secondary schools in Harare and Mashonaland West regions.

Out of the 454 questionnaires sent out, 164 were returned. The study targeted all the 25 secondary schools run by the Seventh-day Adventist Church in Zimbabwe, and 12 schools returned their questionnaires. The schools that returned the questionnaires included day and boarding schools. These schools were from the farms, rural areas, and the cities. The boarding schools and those that are in the urban areas have electricity. The schools in the rural areas have a solar system or they use other ways for energy.

The results of this study were presented in chapter 4 under questions 1, 2, and 3. In this chapter these results will be summarized alongside their related hypotheses.

Findings of Research Questions and Related Hypotheses

Research questions are answered followed by a summary of related hypotheses. Findings related to research question 1 are summarized in Table 53, followed by Table 54, which summarizes the results of the 11 null hypotheses testing. This section is followed by research question 2, which is presented in a similar manner. The next section is research question 3, which is not accompanied by any null hypotheses testing.

Research Question 1

What student support factors that affect student academic performance do teachers perceive as manifested in their schools? The findings of the student support factors are summarized in Table 53.

Table 53

Summary of Findings of Student Support Factors in the Schools

Student support factors that are manifested in the schools	Student support factors not manifested in the schools
Curriculum	Transportation
School climate	School facilities
Teacher professional development	Community support
Administrative support	
Teacher support	

Student Support Factors That Are Manifested in the Schools

Curriculum was considered as present in the schools. According to W. Ncube (1998), curriculum seemed to be one of the problems in the schools. Kabba (1996), in his study of factors that influence high-school performance in Sierra Leone, found that curriculum was one of the important factors that affected student academic performance. Fuller (1987) concurred with the other studies that length of instruction and homework given to the students affected their academic performance.

School climate was considered as manifested in the schools. The schools with positive school climate are effective schools that should have good academic performances. It is important that the teachers and the schools' administrators work together for one common goal. Kabba (1996) found that school climate was essential for effective schools. Hoy and Hannum (1997), in their study of healthy school climate, concurred with other studies that climate was related to student academic achievement in mathematics, reading, and writing.

Teacher professional development was also manifested in the schools. This was not surprising in light of the fact that the government opened ways that the teachers could receive their degrees through distance learning and residential learning courses with the University of Zimbabwe. Some studies indicate that teacher professional development did not affect student academic performance (Zigarelli, 1996) and yet some of the studies find teacher professional development affecting student academic performance (Kabba, 1996; Okoye et al., 2008).

Even though the mean for professional development was manifested in the schools, a mean of 3.31, there appears to be a need for more training to improve the teaching quality of teachers.

Administrative support was considered as manifested in the schools. Marzano et al. (2005) came to the conclusion that principals have an impact on student achievement. Nettles and Herrington (2007) and Fuller (1987) agree with the findings.

Teacher support factors were considered as manifested in the schools. Fuller (1987) in his study found that teachers' high expectations of the students raised academic achievement. Oliver (1995) concurs with this study that the teachers' positive attitude toward the students improved student performance.

Student Support Factors That Are Not Manifested in the Schools

Transportation was not considered as manifested in the schools. The students in the urban areas have to use public transportation to attend school if they choose to attend school in another township. Students in the rural areas have to walk long distances to school as there is no public transportation. The World Bank (2000) stated that problems of getting to school affected student learning. N. Ncube (2004) also stated that long distances walked to school affected the quality of education in the rural areas. This is a huge problem in the rural areas, except for the students who are in boarding schools who travel only at the beginning of the school term and again at the end. The Government and the educational leaders in the Adventist school system in Zimbabwe need to consider this problem and devise a solution.

School facility is another factor that was not considered as manifested in the schools. Funds are needed to improve building structures and the furniture in the schools. The leaders of the Seventh-day Adventist church should devise ways of raising funds to improve the schools' infrastructures. The government does give some building funds, but it is not enough to meet the needs of the schools. The government of Zimbabwe should raise its budget for school buildings so that it can improve the building structures of the schools. Hoy and Miskel (2001) found a positive relationship between building conditions and student achievement. The schools should have electricity to improve the living condition of the teachers in order to retain good teachers. This will help the schools to acquire laboratories where the students can learn science subjects.

Fuller (1987) in his review of previous studies discovered that having a library in the school enhanced learning. Fisher (1999) noted that the availability of computers improved learning for the students.

Community support was one of the factors considered and was found not manifested in the schools. Even though the parents in the rural schools are involved in the building of the schools, the teachers generally perceived that factor as not manifested. The possibility is that the parents come because they are required to, and, since most of them lack education, might not be able to support their children when it comes to actual learning. They expect their children to do chores at home and in the fields and at the same time these children are supposed to do their homework and be ready for school the following day.

In the urban areas, parents are less involved even in the building of schools. The schools have to plan ways of bringing the parents to the schools. The parents might

benefit from time off work to attend teacher/parent conferences. The schools should offer extracurricular activities for the students so that the parents can come to support their children. This will bring awareness to the parents of the needs of the schools.

Both Zigarelli (1996) and Dowd (2001) believe that community support is necessary for academic achievement of students. Community support involves the parents, business community, and anyone living within the vicinity of the schools. Schools can get financial help from these businesses. They can also get ideas of how to raise funds for the schools from these people. The leaders of the Seventh-day Adventist schools in Zimbabwe should devise ways to involve the community and thereby bring ownership of the school to them.

The findings of the null hypotheses testing pertaining to student support factors are summarized in Table 54. These 11 null hypotheses tested whether there was no difference in teachers' perceptions of the manifestation for student support factors that affect student performance based on the 11 factors. Two of the null hypotheses were rejected and nine were retained, as shown in Table 54. The findings are discussed in two sections based on rejecting (significant difference) and retaining (no difference) the null hypotheses.

Significant Differences on Student Support Factors

A significant difference between teacher perceptions on the manifestation of student support factors that affect student performance based on school region was anticipated. At the time, the Midlands region had a higher mean than both Matabeleland

Table 54

Summary of Findings in Regard to Null Hypotheses on Student Support Factors

Variables with significant difference on factors	Variables with no difference on factors
School region	Location of school
Source of light for the school	Type of school
	Gender of teachers
	Age range of teachers
	Region of birth of teachers
	Church affiliation of teachers
	Years of service of teachers
	Qualification of teachers
	Years teachers have been in school

North and Matabeleland South regions. The difference in the means could be accounted for by the fact that Midlands region secondary schools in the sample are mostly boarding schools that were well established before independence. Three of the schools in Midlands were in previous years under the authority of the Zambezi Union Conference and were already well established by 1980 when the country got its independence.

Dorsey (1989) states that older schools with high fee paying and that had more qualified teachers had higher pass rates in 'O' levels than the recently built rural secondary schools that have less qualified teachers.

The difference between Midlands and Matabeleland is unusual because it is contrary to what was expected. In 1997 and 1999, according to the country's school rankings, Matabeleland South had a higher ranking of pass rates than Midlands. The

schools in the Midlands region are mostly boarding Seventh-day Adventist secondary schools and the rural day schools are not well represented. The report of 1997 and 1999 included the secondary schools of the whole region and not just a few chosen schools.

Another observation is that most of the schools in the sample from Matabeleland North are in the rural areas, which could account for the difference. The educational leaders of the Adventists schools in Zimbabwe should devise ways of improving the schools in the rural areas to be on par with the rest of the schools. The students in most cases attend schools nearest to their homes, except for those who attend boarding schools. It is not an option for students to choose regions and schools that have the most student support factors and that seem to reflect better student academic performance.

The two regions with the lowest means of student support factors are in West Zimbabwe Conference. The pass rate for Matabeleland North was 16.70% in 1997 and 11.92% in 1999. In Matabeleland South, the pass rate was 18.30% in 1997 and 15.91% in 1999. These pass rates are based on all the secondary schools in Zimbabwe.

There was a difference in the perceptions of teachers on factors related to student performance based on the source of light. The main difference was between schools with electricity and those with other means for lighting. Some of the schools with other sources of light are using lamps, and these schools are in the rural areas. This would indicate that the schools in the rural areas are at a disadvantage. Besides improved lighting itself, it seems obvious that there will be a number of facilities that could be available to schools with electricity as compared to schools without such a source of energy. It is evident that the government of Zimbabwe has a task at hand to bring electricity to the rural schools.

No Difference in Student Support Factors

The school location was not one of the variables that affected the perception of the teachers differently. This means that schools in the rural and urban areas are perceived to have the same student support factors manifested in their schools. This does not agree with other studies that indicate the location of the school makes a difference in the academic performance of students. Howie and Plomp (2001) in their study of South African schools found that school location mattered in mathematics achievement. Generally, the schools in the rural areas do not have adequate school facilities, and the transportation and community support is poor. Young, Green, Roehrich-Patrick, Joseph, and Gibson (2003) cite a correlation between the adequacy of a school facility and student behavior and performance.

In this study, even though teachers felt that school region had an impact on their perception of student support factors that affected academic performance, the location turned out to be a neutralizing factor. There was therefore no advantage to being located in particular settings even though socioeconomic factors based on the school region played an important part. Educational leaders in the Adventist school system in Zimbabwe may need to examine the regional deficits that could impact student academic performance over and above school location.

There was no significant difference in teachers' perception of student support factors based on the type of school (day or boarding). Generally in this study the day schools were located mostly in the rural areas where the school facilities are not adequate and there is a lack of transportation. One would have thought that the day school teachers' perception would have been significantly different from the boarding school

teachers' perception of the student support factors that affect academic performance. The likely reason might be that some of the students who attended boarding schools came from the surrounding villages and these schools were probably not defined consistently by the teachers. It is possible that some of the respondents may have marked such schools as day schools and this might have affected the results.

Boarding schools should not have a problem with transportation because the students reside in the school. The teachers might have considered the students who came from surrounding villages who have to walk to school daily because there was no transportation for them.

The gender or age of the teachers did not affect their perceptions on student support factors that affected student academic performance. This actually gives weight to the findings of the study. It does not matter whether the teacher is male or female, young or old: There is no significant difference in their perceptions as to the factors that affect student academic performance.

There is no difference in the perceptions of teachers about the important factors that affect student academic performance based on the region of birth. These teachers do not necessarily teach in schools located in their birth regions but can be moved about to different regions in the country. This makes a strong case about what was considered to be manifested in the schools.

Most of the teachers in the Seventh-day Adventist schools are Adventists, but sometimes schools hire non-Adventist teachers as well. There is no difference between the Adventist teachers' and non-Adventist teachers' perceptions on the important factors that affect student academic performance in their schools. This emphasizes the

manifestation of the important student support factors that affect student academic performance.

There is no difference in the perceptions of teachers on the important student support factors that affect student academic performance based on the years of service. Some of the teachers in the schools have been in the teaching profession for a long time and know a lot about the school system, and some have just come out of college with no experience at all, but when they take note of what is going on in the schools, their perception of student support factors that are manifested and those that are not manifested in the schools is not different. This implies that the factors that affect student academic performance are easily identifiable as manifested and not manifested to everyone.

There is no difference in the perception of the teachers about student support factors that affect student academic performance based on their qualifications. It is quite clear to all the teachers, whether they are trained or untrained, and whether they have a degree or not, which student support factors are manifested in the schools.

The number of years the teacher has been in the school does not make a difference in the perceptions of teachers. The longer a teacher spends in one place, the more he knows about its needs and its strong points. This is not the case with these teachers. They perceive the same factors as evident and not evident in the schools. The teachers who have been in the school 5 years or less and those who have been in the school 11 years or more perceive the same student factors as manifested and not manifested. It is possible that 5 years is a long time to be in one place and, as a result, the teachers who have been in the school for 5 years and those who have been there longer see things in the same light.

Research Question 2

What student factors that affect student academic performance do teachers perceive as manifested in their schools?

Table 55 summarizes the findings. Two factors were considered as manifested, while one factor was not manifested.

Table 55

Summary of Findings of Student Factors in the Schools

Student factors that are manifested in the schools	Student factors not manifested in the schools
Discipline	Student physiological needs
Student motivation	

Discipline was considered manifested in the schools. Most of the students in the Adventist school are not performing well in their 'O' level results and yet the teachers perceive their students to be disciplined. A study by Roesler (2009) cited discipline as an important factor in the school as it allows teachers to teach and students to learn.

Motivation was manifested in the schools. With the pass rates being so low, one would have thought that the students were not motivated to learn. Atkinson (2000) and Talib et al. (2009) found a relationship between student motivation and student academic performance. This should be a challenge to the teachers and the principal because if the students are motivated to learn, then something else is the problem. The teachers' responses on teacher support factors were also positive and this leaves one wondering

where the problem could be. There is a need for more studies to be done to ascertain what the real problem is.

The mean for motivation is 3.30, indicating that this could be a potential problem in the future if something is not done to improve the situation. This means that the educational leaders of the Adventist schools in Zimbabwe need to plan ways of motivating the students to learn. With the teachers being supportive to the students and the students motivated to learn, there should be a higher academic performance rate than what is seen now. The question then is whether the teachers are able to deliver the content matter well.

Student physiological needs were not considered as manifested in their schools. Studies of school breakfast programs (Murphy, 2007) found an improvement in the academic performance for those schools involved in the breakfast programs. This is a matter of concern not only to the Seventh-day Adventist church but for the country as a whole. The educational leaders of the Seventh-day Adventist schools cannot by themselves solve this problem. The government could study schools in other countries and note how they are able to take care of the physiological needs of their students. Students come from economically different backgrounds, and those who cannot afford three meals a day need help. The schools could charge a fee so that they could provide a meal to the students. The government could also come up with a program for school breakfast or lunch using the taxpayers' money.

The findings of null hypotheses testing are summarized in Table 56. These null hypotheses tested whether there was no difference in teachers' perceptions on the manifestation of student factors that affect student performance based on the 11 factors.

Six of the null hypotheses were rejected and five were retained, as shown in Table 56. The findings are discussed in two sections based on rejecting and retaining the null hypotheses.

Table 56

Summary of Findings in Regard to Null Hypotheses on Student Factors

Variables with significant difference on factors	Variables with no difference on factors
School region	Gender of teachers
Location of school	Age range of teachers
Type of school	Church affiliation of teachers
Region of birth of teachers	Years of service of teachers
Qualification of teachers	Years teachers have been in school
Source of light for the school	

Significant Differences on Student Factors

It was interesting to note the difference in the teachers' responses based on the school region. The difference in teachers' perceptions about student factors that affect student academic performance was noted between Manicaland and Matabeleland North regions. There was also a difference in teachers' perceptions between Manicaland and Midlands regions. Another difference was noted between Manicaland and Bulawayo. The difference was also noted between Matabeleland North and Matabeleland South regions. There was a difference between Matabeleland North and Midlands regions. Another difference was between Matabeleland North and Bulawayo region. Matabeleland North has the lowest means, followed by Manicaland region.

The manifestation of student factors varies depending on the regions. Students in some regions are more motivated and disciplined, and have their physiological needs met more than do students in other regions. Manicaland is said to be different from Matabeleland North region schools, but the means for both regions shows that the student factors are not manifested.

The two regions with the highest means for student support factors are Bulawayo and Midlands. It was noted earlier that Bulawayo region is in the urban area where students might be motivated to learn because daily they come into contact with people who are educated and might have good jobs. Most of the parents in urban areas work, and students might be able to have breakfast before leaving for school.

Students in the Midlands region are mostly in the boarding schools where there is a lot of discipline because rules have to be followed and where physiological needs are met. The students could have gotten the motivation to learn from the teachers themselves as they spent more time with them. The students may also be coming from a better socio-economic background since most of the parents who send their children to boarding schools are better off financially. It is well to note that in boarding schools there is a selection process for Form 1 students. This might enable these schools to take in students who are eager to learn.

Another thing to note about these schools is that they have electricity and good facilities compared to the day schools in the rural areas. This could have accounted for the difference in the perception of the teachers about student motivation, discipline, and physiological needs.

The region with the lowest mean is Matabeleland North region. Matabeleland

North schools, as said earlier, are in the rural areas. These schools lack such basic needs as electricity, water, and good facilities. The students have the least motivation, discipline, and physiological needs. These are the children who would likely cross over to South Africa to work. The responsible authority, which is the Seventh-day Adventist church, should come up with ways to improve the motivation, discipline, and physiological needs of the students. It is possible that the church alone cannot accomplish this. It might need the help of the government of Zimbabwe to keep these children from crossing over to South Africa.

The school location seems to make a difference in the student factors that affect student performance. There is a difference in responses between urban teachers and rural teachers. There is also a difference between urban teachers and farm school teachers. There is no difference between farm schools and rural schools. This implies that students in the urban schools are motivated, disciplined, and have their physiological needs met better than the students in the rural and farm areas. Even though some of the schools defined as rural are boarding schools and have more discipline and meet the physiological needs of their students, the majority of the schools might be day rural or farm schools that have a problem with meeting the physiological needs of their students. They also have motivation and discipline perceived by the teachers as not manifested in their schools.

It was noted before that children in the Bulawayo region are more disciplined and more motivated, and their physiological needs are better met than in the other regions. The Bulawayo region is in the urban area and that is where motivation, discipline, and physiological needs are met. The children in the rural areas did not choose to be there, and they cannot just move to the urban area. Therefore, it is up to the leaders of the

Seventh-day Adventist church to bring about an improvement in the student factors in these areas. These children deserve a better education too.

There is also a significant difference in the teachers' responses based on the type of school. The boarding schools have a mean of 3.46, and day schools have a mean of 3.02. The students in the boarding school are under constant supervision from their teachers and are given time to study. The boarding schools select their students from a number of applicants and thus already have an advantage against the day schools by having students who are diligent in school. These students could already be motivated and disciplined in learning. Students in the day school are less supervised since they spend the part of the day in the school and the rest of the day they are at home. At home they might not get the encouragement they need to study and the parents might not be educated enough to motivate them to learn.

Most of these day schools are in the rural areas. These schools should devise ways of improving the academic performance of their students. The boarding schools are very expensive, especially for families in the rural areas who have no jobs. Therefore children have no choice but to attend the schools nearest to home. These schools can improve the motivation of the students, they can improve the discipline, and, together with the government, they can develop ways of making sure that the physiological needs of these students are met.

Region of birth of teachers showed a difference in the perceptions of teachers regarding the student factors that affect student performance. The difference was noted between teachers born in the Midlands region and those born in the Bulawayo region.

Teachers born in the Bulawayo region perceived the student factors as not manifested in the schools.

Students in the Bulawayo region were more motivated, more disciplined, and their physiological needs better met than in other regions. It is surprising then that the teachers born in the same region perceive the students to be lacking in motivation, discipline, and physiological needs. One possible explanation is that these teachers are working outside their region of birth. Most of them could be teaching in Matabeleland North and Matabeleland South regions, where it was noted that there was less motivation, discipline, and physiological needs. The teachers born in Midlands region could be teaching in the Midlands area schools.

There was a difference in the teachers' responses based on their qualifications. There was a difference between those who have only teacher training certificates and those who have a Master's degree or higher. One wonders whether those who have a Master's degree or higher work as principals and do not come into daily contact with the students because they have the highest mean for student support factors.

There is a difference in the teachers' responses based on the source of light. This was anticipated. The assumption is that students in schools with electricity are motivated to study, are more disciplined, and physiological needs are better met than those in schools with no electricity. Schools with electricity are in urban areas and in boarding schools, and it was noted previously that those schools had higher means for student factors than those in the rural schools or day schools. Schneider (2002) cited the importance of light in the education of children.

This should be a major concern to the government of Zimbabwe, teachers,

principals, parents, and the Seventh-day Adventist church to solicit funds to supply energy to the rural schools. The schools could be supplied generators or solar systems to improve the living conditions of the teachers and of the students.

No Difference in Student Factors

It was anticipated that there would be no difference in the teachers' perceptions based on gender. The teachers' perceptions about students' motivation, discipline, and physiological needs are the same. There was also no difference in responses of teachers based on the age range. The young and the older teachers perceived the same student factors as affecting student academic performance. There is no difference in the teachers' perception based on their church affiliation. They perceive the same student factors as manifested in the schools.

The years of service of teachers did not make a difference in the teachers' perceptions as to the important student factors that affect student performance. It is quite evident to the teachers who are just graduating from college and to those who have been teaching for years what student factors are manifested in the schools.

Teachers move from one school to the other through voluntary movement or transfers. All the teachers, regardless of the years spent in that particular school, perceive the same student factors as manifested or not manifested in their schools.

The differences in teachers' perceptions on student support factors that affect student academic performance were noted only in the school region and source of light, and yet in the student factors the difference was in the school region, location of school, type of school, region of birth of teachers, qualification of teachers, and source of light for

the school. Could it be that student factors are the major contributor of differences in the student academic performance? If that is the case, what can be done to improve the students' motivation, discipline, and physiological needs in the different regions?

The region with the least student support factors and student factors is Matabeleland North. This is the region about which the Regional Director of Matabeleland North and the Zambezi Union Education Director voiced their concerns.

Research Question 3

Taking into account the acceptable mean of 3.30 on a scale of 1 to 5 where 1 is “strongly disagree” and 5 is “strongly agree,” which student support and student factors are not manifested in each school region?

It is important to know which factors are not manifested in each region so that the policy makers can devise ways of improving the plight of the children in those regions. The results are summarized in Tables 57 and 58 under student support factors and student factors.

Student Support Factors

School region showed a statistical difference in the perceptions of teachers regarding the student support factors that affect student performance. Some of the regions had higher means than the others. Table 57 shows the different regions and the factors that are manifested and not manifested in each region.

The student support factors that are not manifested in Manicaland region are transportation, facility, curriculum, and community support. The policy makers in Manicaland region have to devise ways of improving the transportation system for the

Table 57

Teachers' Perceptions of Support Factors by Region

Region	Transportation	Facility	Curriculum	School climate	Professional development	Community support	Administrative support	Teacher support
Manicaland	*	*	*	√	√	*	√	√
Matabeleland North	*	*	*	*	*	*	√	√
Matabeleland South	*	*	√	*	*	*	*	√
Midlands	*	√	√	√	√	*	√	√
Bulawayo	*	*	√	√	*	*	√	√

* Not manifested.

√ Manifested.

students, the school facility, and involving the community in the school. This region had a mean of 3.31 for all the factors, which is very much in the margin. It is strong in school climate, professional development, administrative support, and teacher support. What can this region do to improve on transportation, school facilities, curriculum, and community support. Should it charge higher fees in order to improve the school, the school buildings, furniture, and to supply electricity? Can the parents afford that, and, if not, what other things can be done to improve the schools?

Matabeleland North had a mean of 2.78, the lowest mean in all the regions. The factors that are not manifested are transportation, facility, curriculum, school climate, professional development, and community support factors. The factors that are manifested are administrative support and teacher support. The implication is that only the teachers and administrators work hard toward improving the performance of the students against the odds of lack of evidence of good school curriculum, school facility, school climate, professional development, and community support. This is supported by what W. Ncube (1998) speculated as possible reasons for high failure rates in this region.

The teachers and the administrators are in a better position to improve the school climate and the school curriculum. They have to devise ways of improving these in their region. The teachers might not be taking advantage of the programs available to them to improve their education. It was stated earlier that the government devised programs to train these teachers to get degrees, and this can be done during the school holidays through the University of Zimbabwe.

In Matabeleland South the mean is 3.24. The factors that are not manifested are transportation, school facility, school climate, professional development, community

support, and administrative support. The factors manifested are curriculum and teacher support. It is the only region deficient in administrative support, and this could be the reason why school climate is not manifested. The Seventh-day Adventist church leaders should find ways of improving relationships of the teachers and administrators. If there is a problem with these, then the children definitely will suffer academically, for there is no working together for the common good.

Midlands region has only transportation and community support not manifested. Could this be because most of the schools from this region are boarding schools? These schools were previously funded by the Seventh-day Adventist church and have good facilities and are well established. The educational leaders of the Seventh-day Adventist church should find ways of solving the problem of transportation and improving community support.

The factors that are not manifested in the Bulawayo region are transportation, school facility, professional development, and community support. Bulawayo region is an urban area, and it is surprising that some of these factors are not manifested, such as school facility and professional development. The possibility is that the new school that was funded by a non profit organization was still lacking in some buildings. The church has to develop ways to improve the buildings and also of encouraging the teachers to take courses that are available to sharpen their teaching skills.

The schools that are lacking in professional development are in the Matabeleland regions under the West Zimbabwe Conference. The educational leaders of the Seventh-day Adventist church should devise ways of helping these teachers improve themselves. The University of Zimbabwe is in another city, and maybe the teachers find it hard to

leave their families during school holidays to attend these courses. Maybe another branch of the University could be opened up in Bulawayo city so that the teachers who live in that town can easily attend.

Student Factors

Table 58 summarizes the student factors by regions and shows those factors that are not manifested and those that are manifested in the regions.

Table 58

Teachers' Perceptions of Student Factors by Region

Region	Discipline	Motivation	Physiological needs
Manicaland	*	√	*
Matabeleland North	*	√	*
Matabeleland South	*	*	*
Midlands	√	√	*
Bulawayo	√	√	√

* Not manifested.

√ Manifested.

The factors that are not manifested in Manicaland region are discipline and physiological needs. The students seem to be motivated to learn. It is surprising that the students can be motivated to learn and yet not be disciplined. The administrators and the teachers need to work together to improve the discipline of the students. Can this region look into ways of providing lunch to its students?

In Matabeleland North, as in Manicaland, the factors that were not manifested are discipline and physiological needs, but it is clear that the students were motivated. The

same question is posed here as to how the students could lack discipline but still be motivated to learn. Could it be that they want to learn but are not able to come to school on time since most of them have to walk to school? There is a possibility that the students also miss classes because of the chores they have to do at home, especially those students in the rural areas.

In Matabeleland South, all three factors were not manifested in the schools. Students lack discipline and motivation, and their physiological needs are not fully met. Could the reason be that this region has the same border with South Africa and it is easy for these students to cross over to find employment? This could be the reason for the lack of motivation. What can be done to improve the motivation and discipline of the children?

The factor that was not manifested in the Midlands region was physiological needs. This is surprising since most of the schools in this region are boarding schools and the students are provided with meals. There are some students, however, who come from the surrounding villages who are non-boarders and are not provided with meals. They have to bring something from home or go without a meal. Can these schools provide lunch for these students for a fee?

The Bulawayo region has all the factors as manifested. It has discipline, motivation, and physiological needs that are met. Bulawayo region is in an urban area, and there are shops around where the students can get something to eat. What was not anticipated is the manifestation of discipline in the schools. It is not understood why students in the rural schools could lack discipline and those in the urban areas be disciplined. Could it be that the students in the urban areas have better transportation to

school? Could it also be that students from urban areas have lighter chores at home to do than students from rural areas? Students in the urban areas are exposed to professional people who have made it in life and could this be a motivation for them?

Conclusions

This study examined the teachers' perceptions in regard to systemic factors that affect student academic performance in the Seventh-day Adventist schools in Zimbabwe. The factors that were chosen were transportation factors, school facilities, curriculum, school climate, teacher professional development, community support, administrative support, teacher support, student discipline, student motivation, and student physiological needs. Based on the study, I drew the following conclusions:

1. The teachers in the Seventh-day Adventist schools in Zimbabwe see transportation as a problem in the schools. The transportation factor had a mean of 2.95. This is not only a problem of the leaders of the church in Zimbabwe, but a problem that should be addressed by the government of Zimbabwe.

2. School facilities were not perceived by the teachers as manifested in the schools. This is a big problem, mostly in the rural schools. The government of Zimbabwe needs to budget more for the school buildings in order to improve the facilities in the school. The Seventh-day Adventist church as a responsible authority needs to devise ways of sourcing funds to improve the school facilities.

3. Community support is not manifested in the schools. This problem should be addressed more by the school administrations and the Seventh-day Adventist church leaders. They should devise ways of getting the community involved.

4. The responses of the teachers regarding the student support factors that affect student performance were analyzed according to regions, and the findings indicated that there was a difference in the responses. This implies that the factors that affect student academic performance are manifested more in some regions than in others. The educational leaders of the Seventh-day Adventist church should examine ways of improving the factors that affect academic performance in their schools.

5. The source of light was another factor that was not considered as manifested in the study. Most of the schools in the rural areas use a solar system or have no source of energy at all in their schools. The government of Zimbabwe should supply electricity to these rural areas so that the schools could have access to it. The homes do not have electricity, thus the students find it difficult to study in the evenings. The Educational leaders of the Seventh-day Adventist church could source funds to buy solar systems for the schools.

6. The student factor that was not manifested in the schools was physiological needs. This is almost a national problem for the church except for the Bulawayo region. School lunches could be provided to the students at a minimal fee, especially in the rural schools. The educational leaders need to research the problem and find ways to see that the students are well nourished.

7. With a mean of 3.30, motivation could be a potential problem and, therefore, administrators and teachers in the schools need to devise ways of motivating their students to learn.

8. The results of the research indicated that some regions had more student factors manifested than others. These factors were discipline, motivation, and

physiological needs. The educational officers of the Seventh-day Adventist church should examine why some of the regions had student factors manifested and others did not and devise ways of improving the situation.

9. The difference in student factors was also noted by location of the schools. Schools in the urban area fared better than the schools in the rural or farm area. The government, the school administrators, and the responsible authorities should work together to find ways of improving the student factors in the rural areas.

10. The research findings indicated that there was a difference in responses on student factors based on type of school. The boarding school teachers felt that the student factors were more manifested in their schools than teachers in the day school. The responsible authorities need to examine and find out the reason for the difference.

11. There was a difference in the teachers' responses on student factors based on the source of light. This again is a matter of the government of Zimbabwe to pull electricity to the rural areas so that the schools could benefit from that. The responsible authorities could also come up with funds to purchase solar systems for the schools without electricity.

Recommendations for Practice

There is a problem with transportation in the country, especially for the students. The responsible authorities should study ways of getting the students to schools apart from the public transport. The responsible authorities could study ways of providing buses in the rural areas to transport students to their respective schools.

Another problem that was found in all the schools was lack of community support. The schools could involve parents as volunteers in the schools, and in that way they will know the needs of the school. The schools could start adult education classes for the community, with the possibility of increasing interest in the school. The government can encourage employers to allow time off for parents to attend teacher/parent conferences.

Most of the rural schools lack good facilities. The church could solicit donations from within and outside the country to improve the buildings of the schools. The schools need running water enabling them to have flushable toilets.

Another factor of importance is the lighting system. The rural areas still lack electricity, and schools in those areas suffer because of that. The government should study ways to supply solar systems or generators, or make it a priority to supply electricity to the schools. In this way students can have a place to study and can have access to computers and laboratories. It will make it easier for the teachers to prepare for the following day and to grade the students' work.

The educational leaders could have more in-service training for the teachers, especially the untrained. These teachers could be taught how to handle difficult students. They could be taught different methods of teaching. They could be taught the importance of having more interest in the students so that they would feel that they have value and worth. Teachers from different regions could come together for retreats to share ideas of how to improve the performance of their students.

Since physiological needs are a problem for all the regions, the educational leaders of the Seventh-day Adventist church should examine the possibility of providing breakfast and lunches for the students so that those who come from poor families and

those who travel long distances to school could be fed. This might not be a problem for the Adventist schools only. Therefore the Ministry of Education in Zimbabwe could study the importance of nutrition on education and how the students could be provided with meals in the schools.

The principals could have their own retreat and have speakers who will advise on how to improve their schools and how to bring about changes in their schools. Most of the time, the principals are chosen from the teachers who have knowledge of administration.

Recommendations for Future Research

The following are recommendations for further research:

1. The study should be replicated in all the schools in Zimbabwe instead of only the Seventh-day Adventist schools. This would enable the study to be generalized to all the schools.
2. The study was more on support factors than the individual effort of the student. A diligence study should be done on the students to compare with their academic performance.
3. The same study should be done, but the population should be the students in order to study their perceptions of the factors that affect their academic performance.
4. A study could be done to examine the regional deficits that could impact student academic performance over and above school location.
5. A study could be done on how to motivate students to do well in the schools in Matabeleland regions.

6. It is important for the Seventh-day Adventist schools to perform as well as the rest of the schools in the country. A study could be done to investigate whether the Seventh-day Adventist schools are performing at a comparable level with the rest of the schools in the country.

7. A longitudinal study could be done to investigate whether giving the students breakfast and lunch would make a difference in their academic performance.

8. The schools are located in different locations of the country. Some are in the rural areas, some in the cities, some are day schools, and yet others are boarding schools. It would be interesting to note how the students perform in these different settings and what makes the difference, if any.

9. Parents should play a major role in the education of their children. A study should be done to investigate how involved the parents are and compare this with the students' performances.

10. There is a large movement of teachers going to South Africa to seek political asylum and also going overseas to such countries as Britain, America, Canada, and Australia. A study should be done to investigate the effects of teacher migration in education.

11. A study could be done on how to improve the transportation problem for the students in Zimbabwe.

12. A study could be done on how home chores affect the learning of the students.

APPENDIX

APPENDIX A
STUDY QUESTIONNAIRE

Section 2: Student Factors

How much do you agree with the following statements regarding student factors related to their learning at your school?

Strongly Disagree Disagree Neutral Agree Strongly Agree

- 62. Teachers use a variety of teaching techniques.
- 63. Teachers are exposed to testing techniques.
- 64. Students write quizzes to revise topics.
- 65. Mock examinations are given to summarize the term's work.
- 66. Students are given home work.
- 67. Teachers revise with students all tested work.
- Discipline Factors**
- 68. Students treat the teachers with respect.
- 69. Students respect each other.
- 70. Students give teachers a difficult time.
- 71. A significant number of students come to school late.
- 72. Student absenteeism is a problem in this school.
- 73. Students are disorderly during class time.
- Motivation for Learning Factors**
- 74. Students are enthusiastic about learning.
- 75. Students complete their home work before coming to school.
- 76. Students are free to ask teachers about school work after class time.
- 77. Students work hard to obtain good grades.
- 78. Students seek out past examination papers.
- 79. Students have high future aspirations.
- Physiological Need Factors**
- 80. Students have adequate lunch.
- 81. Students have breakfast before coming to school.
- 82. Students are warmly dressed in winter.
- 83. Students fall asleep during class time.
- 84. Students are evaluated periodically for physical, mental and social conditions that may affect their learning.
- 85. Students report abuse, neglect and ill treatment at home.

Section 3: General and Demographic Information

86. Gender: Male Female

87. Age range: Under 25 35-44 55-64
25-34 45-54 65 and over

88. Number of years in this school: 0-5 11-15 21+
6-10 16-20

89. Region of birth: Harare Matabeland North Mashonaland Central
Manicaland Mashonaland South Bulawayo
Mashonaland East Midlands Other
Mashonaland West Masvingo

90. Are you a Seventh-day Adventist? Yes No

91. Years of service: 0-5 11-15 21+
6-10 16-20

92. Qualifications: Below Teacher Training B.A. Doctorate or equivalent
Teacher Training Master's or equivalent

93. School Region: Harare Matabeland North Mashonaland Central
Manicaland Mashonaland South Bulawayo
Mashonaland East Midlands

94. School Location: Urban Rural Farm Growth Point

95. Type of School: Boarding Day School

96. Lighting System: Electricity Solar System Other

APPENDIX B

LETTER FROM THE INSTITUTIONAL REVIEW BOARD (IRB) GIVING
CLEARANCE TO PROCEED WITH THE RESEARCH

Andrews University

February 5, 2003

Sophie Masuku

9482 Timberleaf Drive
Dallas
TX 75243

Dear Sophie

RE: APPLICATION FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS
IRB Protocol #: 03-003 **Application Type:** Original **Dept:** Education Administration
Review Category: Exempt **Action Taken:** Approved **Advisor:** Hinsdale Bernard
Protocol Title: Perceptions of Teachers and Supervisors on Systematic Factors Related to Student
Performance in Seventh-day Adventist Schools in Zimbabwe

On behalf of the Institutional Review Board (IRB) I want to advise you that your proposal has been reviewed and approved. You have been given clearance to proceed with your research plans.

All changes made to the study design and/or consent form, after initiation of the project, require prior approval from the IRB before such changes can be implemented. Feel free to contact our office if you have any questions.

The duration of the present approval is for one year. If your research is going to take more than one year, you must apply for an extension of your approval in order to be authorized to continue with this project.

Some proposal and research design designs may be of such a nature that participation in the project may involve certain risks to human subjects. If your project is one of this nature and in the implementation of your project an incidence occurs which results in a research-related adverse reaction and/or physical injury, such an occurrence must be reported immediately in writing to the Institutional Review Board. Any project-related physical injury must also be reported immediately to the University physician, Dr. Loren Hamel, by calling (269) 473-2222.

We wish you success as you implement the research project as outlined in the approved protocol.

Sincerely,



Michael D Pearson
Graduate Assistant
Office of Scholarly Research

Office of Scholarly Research, Graduate Dean's Office, (269) 471-6361
Fax (269) 471-6246 / E-mail: mpearson@andrews.edu
Andrews University, Berrien Springs, MI 49104-0355

APPENDIX C

COLLECTION OF DATA CORRESPONDENCE

CONSENT COVER LETTER

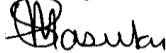
Dear Teacher,

As you may well know, the 'O' level results vary from school to school and generally the performance level needs a lot of improvement for most of the schools. I am doing a research project as part of the requirements for completion of a Ph. D. degree in Educational Administration at Andrews University. The purpose of this study is to investigate factors that influence the academic performance of students attending Seventh-day Adventist Secondary Schools in Zimbabwe.

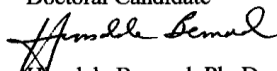
This study is significant for teachers, headmasters, and administrators. The educators will know the areas that most influence the academic performance of students and will seek to address them. Hopefully the policy makers will use this study as they make new policies affecting the education of the students. If this study is shared with the community, they might see the need of being involved in the education of the students and offer their support both financially and emotionally. You are being asked to participate in this study. I can assure you that your participation is voluntary and will be confidential. No one will be identified in the report of our findings. If you decide to participate, please place the survey in the envelope after you complete it and seal the envelope. Put the envelope in a box which will be supplied and these will be sent back to me. Do not write your name anywhere on the survey. Completion and return of the Teacher Questionnaire represent your consent to participate in the study. If you do not want to participate, simply send the instrument back to me in the envelope provided.

If you have any questions concerning this research study please feel free to contact me at (214) 343-8606 or e-mail me at smasuku@hotmail.com. You can also contact Dr Hinsdale Bernard at (269) 471-6702 or e-mail him at hbernard@andrews.edu. If you have any questions concerning your rights as a research subject, please contact Andrews University's Institutional Review Board at (269) 471-6361. Thank you for your cooperation and assistance.

Sincerely,



Sophie Masuku
Doctoral Candidate



Hinsdale Bernard, Ph. D.
Dissertation Committee Chair
Associate Professor of Education

Teacher,

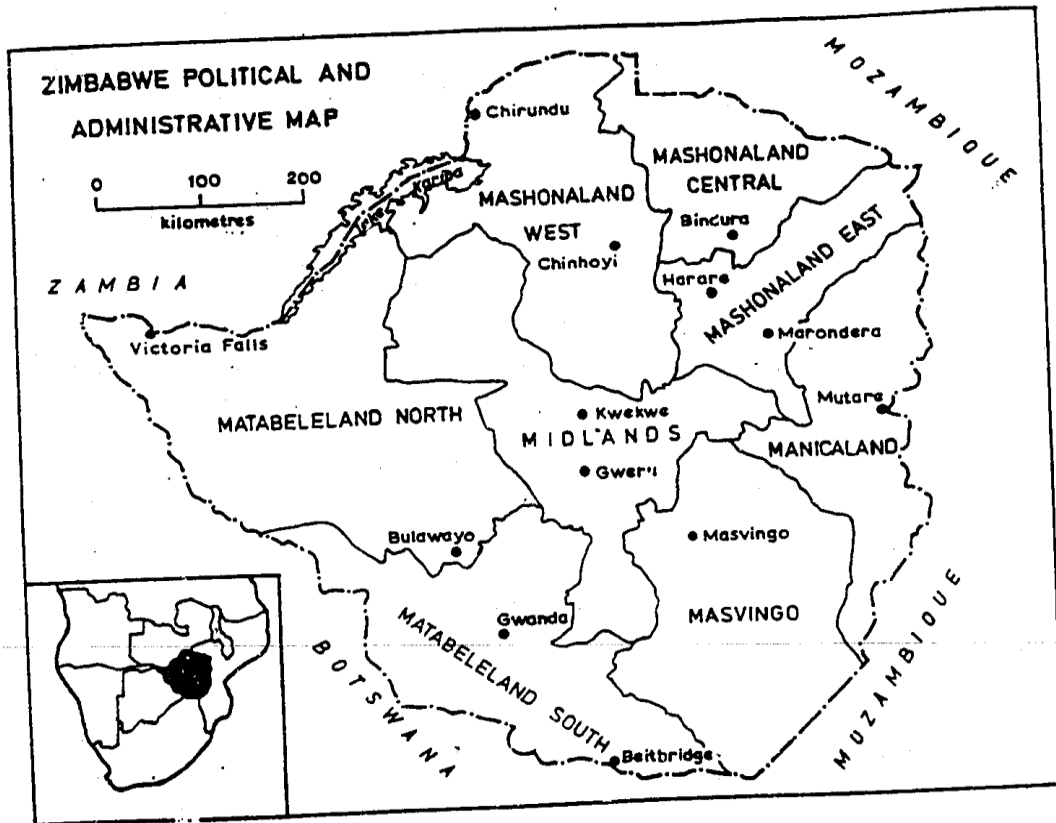
The enclosed material is for research study/studies. Please liaise with the Principal/Headmaster/Deputy Headmaster to take opportunity of distributing the questionnaires during staff meeting. When the teachers, including yourself, have filled them out they can individually insert them in the large envelope in order to preserve anonymity of their responses. Where there is a questionnaire to be filled out by the Principal/Headmaster/Deputy Headmaster, hand it out to him/her, collect it when filled out and insert it with the rest of the questionnaires in the appropriate envelope. When all the teachers' responses have been collected in the large envelope, please return the envelope with all filled-out and unused questionnaires to Mr Willmore Ncube as soon as possible.

Thank you for your participation and leadership in processing this material.

Sincerely,

Research Student

Map 1
Political Regions of Zimbabwe



"THE PAINFUL TRUTHS"

Students do poorly in their 'O' level exams in Matebeleland - particularly in Matebeleland North.

The Grade seven and 'A' level results are not as bad although there is much room for improvement.

Poor academic performance in Matebeleland could be a major contribution to the following:

- a. Low or non-representation of the constituency in the National concerns like Politics, Parliament, economy, etc.
- b. Featuring of the constituency in non-decision making roles - i.e. deputies, vices, associates, etc.
- c. Prevalence in the teaching of arts - very few in Maths and Sciences - etc.

Possible reasons for poor 'O' level results in Matebeleland are:

1. Teachers inadequately qualified and incompetent.
2. Teachers not committed.
3. Supervision of instruction by heads inadequate.
4. Students inadequately motivated.
5. Students' discipline not conducive to quality learning.
6. Students not equipped with effective study skills.
7. Students not exposed to adequate exam preparation.
8. Possible over-drilling on previous examination papers at the expense of in-depth teaching on the basic concepts at Primary School level.
9. Inadequacy of teaching materials, facilities, etc.
10. Lack of exposure to exam techniques and skills on the part of teachers.
11. Students in Matebeleland come from poor homes - underfed, poorly clothed, poorly equipped for meaningful learning, walk long distances to school.
12. Lack of cooperation between home and school.
13. Not adequate time to cover the syllabus - no extra teaching, etc.
- 14.

REFERENCE LIST

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- Atkinson, E. S. (2000). An investigation into the relationship between teacher motivation and pupil motivation. *Educational Psychology, 20*(1), 45-58.
- Boyer, E. L. (1996). Five priorities for quality schools. *Education Digest, 62*(1), 4-9.
- Chiwaro, S. D., & Manzini, M. M. (1995). *Introduction to policy studies in education*. Unpublished paper presented to Centre for Distance Education, University of Zimbabwe, Zimbabwe.
- Chmelynski, C. (2007). Free student breakfasts: Surest way to raise performance. *Education Digest, 72*(8), 59-61.
- Coding, J. B., & Tucker, M. S. (2000). A new high school design focused on student performance: Part I. *National Association of Secondary School Principals, 84*(615), 79-92.
- Codianni, A.V., & Wilburn, G. (1983). *More effective schooling from research to practice*. New York: Teachers College, Columbia University.
- Cotton, K. (2003). *Principals and student achievement: What the research says*. Alexandria: Association for Supervision and Curriculum Development.
- Dembo, M. H. (1994). *Applying educational psychology*. New York: Longman Publishing Group.
- Dorsey, B. J. (1989). Educational development and reform in Zimbabwe. *Comparative Review, 33*, 40-58.
- Dowd, A. J. (2001). *Learning requires qualified teachers, good teaching, and community support in Malawi*. Unpublished doctoral dissertation, Harvard University, Cambridge, MA.
- Edwards, G., & Tisdell, C. (1989). The educational system of Zimbabwe compared with those of selected African and advanced countries: Costs, efficiency and other characteristics. *Comparative Education, 25*(1), 57-76.

- Esposito, C. (1999). Learning in urban blight: School climate and its effect on the school performance of urban, minority, low-income children. *School Psychology Review*, 28(3), 365-378.
- Fiala, R., & Lanford, A.G. (1987). Educational ideology and the world education revolution, 1950-1970. *Comparative Education Review*, 31(3), 315-332.
- Fisher, A. (1999). High tech, high grades? *Popular Science*, 254(1), 64-70.
- Fuller, B. (1987). What school factors raise achievement in the Third World? *Review of Educational Research*, 57, 255-292.
- Howie, S. J., & Plomp, T. (2001, April 10-14). *English language proficiency and other factors influencing mathematics achievement at Junior Secondary level in South Africa*. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.
- Hoy, W. K., & Hannum, J. W. (1997). Middle school climate: An empirical assessment of organizational health and student achievement. *Educational Administration Quarterly*, 33, 290-312.
- Hoy, W. K., & Miskel, C. G. (2001). *Educational administration theory, research and practice*. New York: McGraw-Hill.
- Jaggia, S. (1999). An analysis of the factors that influence student performance: A fresh approach to an old debate. *Contemporary Economic Policy*, 17(2), 189-199.
- Jansen, J. (1991). The state and curriculum in the transition to socialism: The Zimbabwean experience. *Comparative Education Review*, 35, 76-91.
- Johnson, W., & Johnson, A. M. (1996). Assessing school climate priorities: A Texas study. *Clearing House*, 70(2), 64-67.
- Kabba, M. A. (1996). *A descriptive study of Sierra Leonean college and university students' perception of factors that affect performance on the general certificate of education ordinary (GCEO)-level examination (General certificate of education ordinary level examination)*. Unpublished doctoral dissertation, The University of Oklahoma, Norman.
- Lemon, A. (1995). Education in post-apartheid South Africa: Some lessons from Zimbabwe. *Comparative Education*, 31, 101-115.
- Lezotte, L. W. (1992). Learn from effective schools. *Social Work*, 22(3), 34-37.

- Marzano, R. J., Waters, T., & McNulty, B. A. (2005). *School leadership that works: From research to results*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Maslow, A. H. (1968). *Toward a psychology of being*. New York: Van Nostrand.
- Ministry of Education. *Development of education*. (1996, September 30-October 5). National Report presented to the 45th Session of International Conference on Education, Geneva.
- Mufambisi, E. (1995). *School culture: Deciphering some basic cultural assumptions operating in a school in Zimbabwe*. Unpublished doctoral dissertation, Dalhousie University, Halifax, Nova Scotia, Canada.
- Murphy, J. M. (2007). Breakfast and learning: An updated review. *Current Nutrition & Food Science*, 3(1), 3-36.
- Ncube, N. J. (2004). *Managing the quality of education in Zimbabwe: The internal efficiency of rural day secondary schools*. Unpublished doctoral dissertation, University of South Africa, Pretoria.
- Ncube, T. & Nelson, R. (1985). Indications from data based on a survey of sampled secondary schools in Harare, Mashonaland and Manicaland: Proceedings of national English survey conference (Ministry of Education), Harare, Zimbabwe.
- Ncube, W. (1998, January). *The painful truths*. Address to Heads of Schools in the Zimbabwe Union Conference, Bulawayo, Zimbabwe.
- Nettles, S. M., & Herrington, C. (2007). Revisiting the importance of the direct effects of school leadership on student achievement: The implication for school improvement policy. *Peabody Journal of Education*, 82(4), 724-736.
- Noblit, G. W., & Pink, W. T. (2008). *International handbook of urban education*. Dordrecht, Netherlands: Springer.
- Okoye, N. S., Momoh, S. O., Aigbomian, D. O., & Okecha, R. E. (2008). Teachers' quality, instructional strategies and students' performance in secondary school science. *Journal of Instructional Psychology*, 35(2), 204-211.
- Okpala, C. O., Smith, F., Jones, E., & Ellis, R. (2000). A clear link between school and teacher characteristics, student demographics, and student achievement. *Education*, 120(3), 487- 495.
- Oliver, H. (1995). Influence of motivational factors on performance. *Journal of Instructional Psychology*, 22(1), 45-50.

- Ormrod, J. E. (2008). *Educational psychology: Developing learners*. Upper Saddle River, NJ: Prentice Hall.
- Pallant, J. (2005). *SPSS survival manual*. New York: Open University Press.
- Payne, C. R. (2002). Mathematics success and failure among African-American youth: The role of sociohistorical context, community forces, school influence, and individual agency. *Educational Horizons*, 80(3), 98-100.
- Peterson, R. L., & Skiba, R. (2001). Creating school climates that prevent school violence. *Social Studies*, 92(4), 167-176.
- Purkey, S., & Smith, M. (1982, February 25-27). *Effective schools: A review*. Paper presented at the National Invitational Conference, Warrenton, VA.
- Ravitch, D. (1999). Student performance. *Brookings Review*, 17(1), 12-17.
- Riddell, A. R., & Nyagura, L. M. (1991). *What causes differences in achievement in Zimbabwe's secondary schools?* New York: The World Bank.
- Roesler, D. A. (2009). *Principals' perceptions of the relationship between student behavior and classroom environment*. Unpublished doctoral dissertation, University of Houston.
- Schneider, M. (2002). *Do school facilities affect academic outcomes?* Washington, DC: National Clearinghouse for Educational Facilities.
- Stover, D. (2005). Climate and culture. *American School Board Journal*, 192(12), 30-32.
- Talib, O., Luan, W. S., Azhar, S. C., & Abdullah, N. (2009). Uncovering Malaysian students' motivation to learning science. *European Journal of Social Sciences*, 8(2), 266-276.
- Taylor, D. E. (2008). *The influence of climate on student achievement in elementary schools*. Unpublished doctoral dissertation, The George Washington University, Washington, DC.
- Thomas, L. S. (2003). *A study of perceived traits of selected high-performing high-poverty public schools in Texas*. Unpublished doctoral dissertation, Texas A&M University, Corpus Christi.
- Williams, F. E., Jr. (2008). *Principal influence on student achievement in high minority, poverty, and performance K-8 schools*. Unpublished doctoral dissertation, Cardinal Stritch University, Milwaukee, WI.

- World Bank. (2000). *Effective schooling in rural Africa project report 1: Review of phase 1 of the program*. Washington, DC: Human Development Network.
- Young, E., Green, H. A., Roehrich-Patrick, L., Joseph, L., & Gibson, T. (2003). *Do K-12 school facilities affect education outcomes?* Retrieved May 5, 2009, from http://www.state.tn.us/tacir/PDF_FILES/Education/SchFac.pdf
- Zigarelli, M. A. (1996). An empirical test of conclusions from effective schools. *Journal of Educational Research*, 90(2), 103-111.
- Zimbabwe Government. (1981). *Growth with equity*. Harare, Zimbabwe: Government Printers.
- Zimbabwe Government. (1982). *Transitional national development plan*. Harare, Zimbabwe: Government Printers.
- Zimbabwe Government. (1996). *Education act*, Chapter 25:04. Harare, Zimbabwe: Government Printer.
- Zimbabwe Government. (1998). *Education statistics report*. Harare, Zimbabwe: Central Statistical Office.

VITA

VITA

Name: Sophie Masuku

Place of Birth: Bulawayo, Zimbabwe

Education:

2007 Associate Degree in Nursing
Southwestern Adventist University, Keene
Texas, USA

1996 Masters in Business Administration
Andrews University, Berrien Springs,
Michigan, USA

1988 Bachelor of Business Administration
Solusi Campus of Andrews University
Bulawayo, Zimbabwe

1977 Diploma in Business Administration
Solusi College
Bulawayo, Zimbabwe

Work Experience:

2007 - 2010 Nurse
Life Care Center of Plano
Texas, USA

2002 - 2005 Accounts Receivable Clerk
Adams Mark Hotel, Dallas
Texas, USA

1998 - 2001 Student assistant to International Student Office
Andrews University, Berrien Springs
Michigan, USA

1994 - 1998	Student Accounts Clerk Andrews University, Berrien Springs Michigan, USA
1991 - 1994	Treasurer West Zimbabwe Conference of Seventh-day Adventist Bulawayo, Zimbabwe
1989 - 1991	Accountant Zimbabwe Union Conference of Seventh-day Adventist Bulawayo, Zimbabwe
1987 - 1989	Accountant Solusi University Bulawayo, Zimbabwe
1981 - 1985	Secretary Danziger and Partners Law Offices Gweru, Zimbabwe
1977 - 1979	Secretary Zambesi Union Mission of Seventh-day Adventist Bulawayo, Zimbabwe