A COMPARATIVE INVESTIGATION OF THE FACTORS OF THE ACADEMIC PERFORMANCE OF BLIND STUDENTS IN HISTORY IN SPECIAL SCHOOLS AND IN INTEGRATED SCHOOLS IN ZAMBIA

BY

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AUTHOR'S DECLARATION

I, the undersigned declare that this dissertation represents my own work; that it has not previously been submitted for a degree at the University of Zambia or at another University and that it does not include any published work or material from another thesis.

Signed: .....

Date: 25/5/93

APPROVAL

This dissertation of ABRAHAM SIMWANZA is approved as fulfilling part of the requirements for the award of the degree of Master of Education of the University of Zambia.

Signed: Barnabas Otsala ..... Date 14-5-92

Signed: ..... Date 13-10-93

Signed: ..... Date .....

Signed: ..... Date .....

DEDICATION

To my beloved wife Kambuza and our children Chinyansi, Mwanza, Mwiyilile and Katwamba.

ABSTRACT

This study sought to carry out a comparative investigation of the factors of academic performance of blind grade 9 students in special schools and integrated schools in Zambia. The sample schools used in the study were two basic special schools one located in Luapula province and the other in the Copperbelt province; and two integrated ordinary schools one located in the Southern province and the other in the Western province. Three tests in the history subject for blind grade 9 students and a questionnaire for both students and their history and specialist teachers were the instruments used in this study which examined the following variables: type of school, teacher attitude, teacher quality, student background, teaching materials, teaching equipment, student gender and role of the Zambian government. Data analysis involved computation of data into tables, percentages, mean and standard deviation. A t-test was employed to test if there was any significant difference between special schools and integrated schools in the scores obtained by blind grade 9 students in the history tests, and teacher attitudes towards blind grade 9 students.

The results obtained showed that type of school, teacher quality, teacher attitudes, student gender appeared to have no significant effect on the academic performance in history between blind grade 9 students in special schools and those in integrated schools. However, the availability and use of teaching materials and teaching equipment, and student background seemed to have had an effect on the academic performance in history among blind grade 9

students in both special schools and integrated schools. All the sample students studied felt that though assistance was given by their teachers of history during history lessons, it was not adequate in some cases. Nevertheless, an overwhelming number of students in both types of schools appeared to be of the view that they received adequate attention from the majority of their specialist teachers, although the general feeling was that there was need for the Zambian government to provide all the necessary facilities needed for teaching and learning.

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CHAPTER ONE

STATEMENT OF THE PROBLEM

This chapter presents the introduction, background to the problem, the problem, purpose of the study, hypotheses, assumptions, significance of the study, limitations, definition of terms, and organisation of the remaining chapters.

Introduction

Special education is a field which caters for educational needs of minority groups such as the blind, the deaf, the mentally retarded and the physically handicapped who appear to be disadvantaged when compared with the normal in society. This study draws special attention to the education of blind children. In the article entitled "Special Education in the Developing Countries of the Commonwealth" produced by the Commonwealth Secretariat, reference was made to the purpose of educating blind children. Some of the suggestions made were that education must be provided to blind children to enable them make the best possible use of their individual ability and aptitudes; blind children must receive training in social skills; and the blind child's range of experiences must be widened and adapted to his/her current needs (Commonwealth Secretariat, 1972:13). Sakala quoted Wall as follows:-

> the aim of education for the visually impaired is that they should be educated to take their places as normal as possible in the sighted world rather than to be treated as a group apart destined to live in a closed and self contained community of those similarly affected (Sakala, 1988:5).

The education of blind children was examined in relation to the integration policy. The Commonwealth Secretariat (1972) outlines the advantages and disadvantages of educating the blind in integrated schools and special schools. Integrated or open education is handy educationally and reduces financial costs since it is difficult and expensive to provide a network of residential schools to accommodate all the blind children. It also necessitates the provision of education to children in developing countries especially above primary level. Besides costs, the normalisation principle where the blind and others have to be accepted into wider society and be provided with educational, political, social and material needs and be made to participate fully in the development of the nation from a humane point of view, is another advantage. However, there may be the problems of inadequate buildings and equipment, and the teacher might not have sufficient time to give his/her blind students an effective start in the basic subjects.

Special schools have the advantage of providing a traditional form of education for the visually handicapped children. They are placed in appropriate areas, while emotional and social economic problems are minimised among the blind. Travel problems and isolation from their peer groups are eliminated. Other advantages of special schools are that they provide in most cases, buildings well adapted to particular needs, presence of mainly specialist teachers, and equipment may be provided in adequate quantities and varieties. However, many governments cannot justify the provision of special schools for the blind when a good number of sighted children fail to find places and the cost of running a day school

for comparable normal children (Commonwealth Secretariat, 1972:16).

Background to the problem

Blindness is understood to be " a condition of severe visual impairment, such loss of sight as to result into measurable vision or vision which is so limited as to be of little practical use if any, as a channel of learning" (Good, 1973:64). Selfe and Stow referred to studies done in Britain by Frazer and Friedman which revealed that the causes of blindness are "hereditary and genetic; prenatal; perinatal; postnatal; and a combination of hereditary and environmental causes" (Selfe and Stow, 1981:38). These are characterised by corneal scars, cataracts, destruction of the eyeball, trachoma, glaucoma, measles, malnutrition, and so on.

The problem of blindness could be traced from ancient times. There were for instance the blind in the bible (American Bible Society, 1971:17-18, 203); during the Greek and Roman Empires; and during the Middle Ages up to the 20th Century. Treatment of the handicapped ranged from cruelty to humane. The blind were not generally considered normal and fit to receive education because of people's harsh feelings about them based on religion and superstition. Change in this negative attitude occurred when Louis Braille, born in 1809 near Paris, accidentally blinded himself at the age of three. Valentine Hauy, founder of the Royal Institution for Blind Youth in Paris at which Louis Braille attended at the age of ten, developed a system in which embossed letters took the place of inkprint. Later

Charles Barbier de La Serre, an artillery captain in the French army, became the first person to invent touch writing that did not involve standard letters of the alphabet, but a 12 - dot cell to facilitate "night writing" to be used by soldiers on night maneuvers. At the age of fifteen, Louis Braille reduced the 12 - dot cell to a 6 - dot cell which was not complicated and difficult to use. This became the land mark for the invention of Braille writing. Asylums were constructed for the blind. These were hideaways for the blind considered unfit to mix with wider society. The first real school for the blind in which academic work and skills were offered was built by Valentine Hauy in Paris in 1785. This was a turning point from philanthropic hideaways to educational establishments which began to proliferate during the 19th and 20th centuries. However, problems remained since the blind were still treated as a special, segregated group, divorced from the mainstream of society (Yeadon and Grayson, 1979; Besa, 1987; Katwishi, 1988).

From the few studies conducted in some third world countries, it has been shown that the handicapped are exposed to different attitudes and treatment. Kasonde-Ng'andu quoted Chowo's study on the handicapped in Tanzania which revealed that handicapped children were regarded by many villagers as a sign that their parents had sinned or were guilty of some evil deed (Kasonde-Ng'andu, 1986:12). In Zambia, some societies in the olden days had stereotypes towards the blind and the handicapped in general. Blindness was for instance viewed as an outcome of sin committed by either the affected person or parents; blindness was contagious; the blind were witches; and even in a

family the blind were kept at a distance (Katwishi, 1988; Sakala, 1988). Kasonde-Ngandu (1986) writes that in some parts of Zambia such as the Eastern Province there is an indication that blind children were viewed as rejects. The Bemba, on the other hand, treated the handicapped and the aged as people in need - a result of fear that relatives who die with a grudge never rest in peace, such that their spirits may haunt the living. She further refers to Phiri (1979), who carried out his studies among some Lusaka urban residents. Phiri found that the handicapped in Zambia were generally regarded favourably though there was an indication that the mentally retarded were the least favoured.

Contemporary society has, on the other hand, started showing increasing concern for the rights of the minority, such as the blind. The Educational Reforms in Zambia for instance stipulate that:-

> all handicapped children, like any other children are entitled to education. They should receive basic and further education by full-time and part-time study as any other children .... there should even be 'positive discrimination' in their favour in the provision of facilities and amenities for education purposes (Ministry of Education, 1977:23).

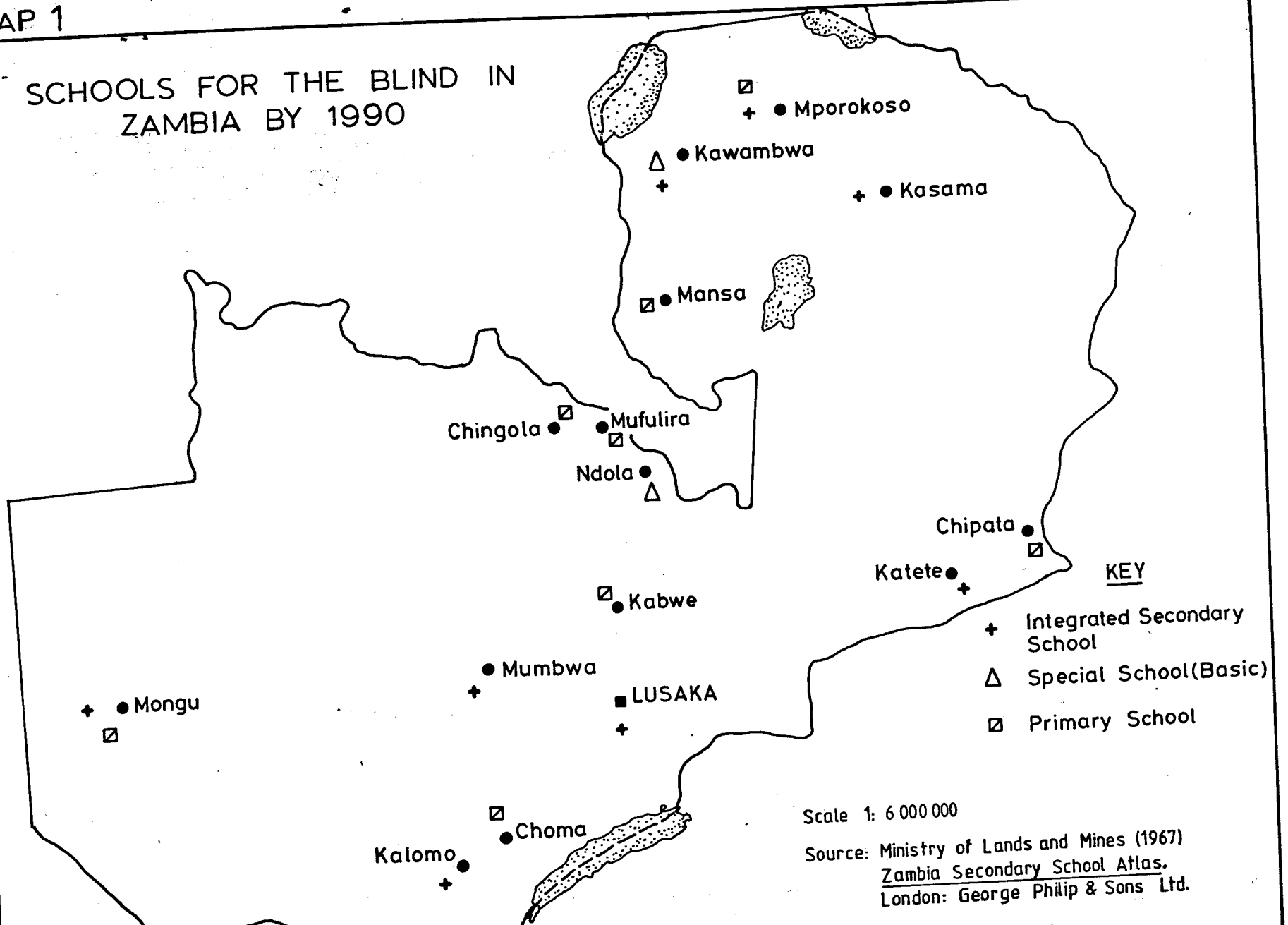
The coming of missionaries to Zambia at the close of the 19th century led to the start of change in the negative attitude some people had because they set an example by embarking on a rehabilitation programme. The missionaries opened up schools for the blind between 1905 and 1963. Some of these schools were: Magwero in Chipata in 1905, Madzimoyo in Chipata in 1914 and Nyanje in Petauke in 1923 (owned by the Dutch Reformed Church); Lwela in Fort Rosebery in the early 1930s, St. Mary's in Kawambwa in 1961 and Mporokoso in Mporokoso in 1963 (owned by the Roman Catholic Church); Johnstone Falls near Johnstone Falls in 1940

(owned by the Christian Mission in Many Lands: C.M.M.L.); Chipili near Fort Rosebery in the mid 1940s under the Universities' Mission to Central Africa: U.M.C.A.); and Sefula in Mongu in 1955 (under the Paris Evangelical Mission Society: P.E.M.S.) However, some of the schools mentioned above had been phased out by 1990 (see Map 1). In 1971 the Zambian Government took over the running of special schools for the blind from missionaries. Some schools were closed in order to rationalise services and improve quality of education. The government further made it official as evidenced in the Educational Reforms, for the handicapped persons to attend ordinary schools and colleges under the integration programme (Ministry of Education, 1977).

A number of schools for the blind are in existence in Zambia today. Primary schools are sub-divided into two groups:- residential schools such as Mporokoso school in Mporokoso, Sefula primary in Mongu and Magwero school in Chipata; units in ordinary primary schools such as St. Mathias Mulumba which is a special unit found in Choma since it caters for all handicaps, that is, the blind, the deaf, the mentally handicapped and the physically handicapped; Mano primary in Mufulira, Syanalumba primary in Livingstone, Kombaniya primary in Mansa, Nkwashi primary in Kabwe and Kabundi school in Chingola. There are two special schools which are basic schools. These are:- Ndola Lions Basic in Ndola and St. Mary's Basic in Kawambwa. The integrated ordinary secondary schools are Mporokoso secondary school in Mporokoso, Katete secondary school in Katete, Sefula secondary school in Mongu, Kasama Girls secondary school in Kasama, Mumbwa secondary school in Mumbwa, St. Mary's Girls secondary school in Kawambwa, Munali secondary school

MAP 1

SCHOOLS FOR THE BLIND IN ZAMBIA BY 1990



Scale 1: 6 000 000

Source: Ministry of Lands and Mines (1967) Zambia Secondary School Atlas. London: George Philip & Sons Ltd.

in Lusaka, and Kalomo secondary school in Kalomo (see Map 1). Some blind Zambians, such as the then Minister of State for Culture in 1990 Mr. Lazarous Tembo, have managed to attain degrees from the University of Zambia, which is the highest learning institution for the sighted in the country.

Despite the positive changes noted above, it seems that some teachers for the blind still portray some negative attitudes towards blind students. The subject of history was used as the area for study because the researcher is a trained teacher of history. It was therefore convenient to use the subject of history in which the researcher is a specialist. In addition, history curriculum developers and policy makers must be made aware that the teaching of history is beset by problems related to teaching equipment and teaching materials.

The Problem

Conditions in integrated schools and special schools are different. It has been observed by Bateman (1967) and Kapijimpanga (1988) that minority groups such as the blind have not been adequately catered for in terms of their learning needs like provision of brailled textbooks, charts, and embossed maps, trained staff, equipment like the Perkins, frame and stylus, ordinary typewriters, and thermform. It appeared that the above conditions would lead to poor performance aggravated by the teachers' negative attitudes towards blind students. The problems of poor equipment, conditions of learning and teaching materials would be attributed to lack of an aggressive government attitude towards special education as well as lack of a clear-cut

government policy because special education is relatively new to Zambia. It is for these reasons that this researcher chose to focus in this area of study.

The Purpose of the Study

This study therefore sought to examine whether provision or lack of provision of brailled textbooks, charts, and embossed maps, trained staff, equipment like the perkins, frame and stylus, ordinary typewriters, and thermform as well as teachers' negative attitudes towards blind students would lead to any significant difference in the academic performance in history between blind students in integrated schools and blind students in special schools in Zambia.

Hypotheses

1. Blind students in schools with poor conditions of learning such as lack of adequate teaching materials and equipment like brailled textbooks, braille typewriters; specialist teachers, perform poorly in history.

2. Teachers in segregated special schools have more positive attitudes towards blind students than teachers in integrated schools.

Assumptions

Derived directly from the above hypotheses, this study assumed that:-

i. blind grade 9 students in special schools would perform better in history than their counterparts in integrated schools

because their schools have adequate teaching equipment and materials, enough specialist teachers, conducive environment, and so on.

ii. since teacher attitudes towards blind students in special schools are more positive than teacher attitudes towards blind students in integrated schools, the performance of blind grade 9 students in history in special schools would be better than that of blind grade 9 students in integrated schools.

iii. Positive/Negative teacher attitude will affect performance of students (Positively or negatively).

Significance of the Study

The policy of integration enables blind students to share with the sighted all educational materials, take part in all social and intellectual activities, and facilitates community rehabilitation. However, integrated schools do not have enough equipment and teaching materials for blind students, and are largely manned by non-specialist teachers (Besa, 1987:2). Since special education is a relatively new development in Zambia, this study could contribute to knowledge about the education of the blind taking into account the role of teaching materials and equipment; attitudes of teachers; and specialist training among teachers. Although this was a small study, the preliminary findings indicated that it might lead to further comprehensive research which would be useful to both teachers and policy makers.

Limitations

A number of problems were encountered during the exercise of data collection. There was the problem of travelling to target schools, characterised by the difficulty in finding public transport. Further, some students faced problems with some words which were not brailled accurately by the person who had been employed to change the tests from normal print into braille. This problem was fortunately overcome by making reference to the printed copies of the tests with regards to the problem areas in the brailled copies.

This study was also based on a very small sample because the blind, like other handicapped people, are in a minority when compared to the sighted. Since only a limited number of schools were covered, the findings in this study cannot be generalised to the whole blind population in the country. Lastly, though the interview method is a vital tool of research it has some limitations which need to be noted, as Kisenga and Kasonde-Ng'andu quoting Simons have stated:

> the interview is a complex two way process. Yet we often take it for granted when we are in the field that our task is simply to pop questions about a particular research inquiry, to which the interviewers provide information. However, a number of factors affect both the process of interviewing as well as the nature of information yielded. for example, the way the interviewee perceives the interviewer, and vice versa, has a tremendous effect on the type of information gathered (Kisenga and Kasonde-Ng'andu, 1988:101).

However, due to time constraints, it was not possible to utilise other methods such as participant observation.

Definition of terms

In the context of this study, the terms below are used as follows:-

Special Schools - are traditional schools for the disabled people, such as the blind. They are boarding schools which provide the recommended environment to the blind, for instance, in terms of equipment, buildings and specialist teachers.

Integrated Schools - refer to ordinary schools initially meant for the sighted in which blind students also attend. There are two types of integrated schools:-

i. Resource Room Centres - schools in which the sighted learn side by side with blind students in the same classes under ordinary teachers. But the blind students go to a resource room for remedial, instructions in mobility and Activities for Daily Living (ADL) under a specialist (or resource) teacher. These operate mainly in secondary schools.

ii. Unit System - though still experimental, operates in selected primary schools in Zambia. It involves construction of an additional class per grade for the blind in ordinary primary schools. Each school has seven specialist teachers.

Academic Performance - scores obtained by blind students in history tests in line with the scale set by the Examination Council of Zambia for candidates in the junior secondary school leaving examinations are as follows:-

Percentage	Grade	Classification
75 and over	1	distinction
60 - 74	2	merit
50 - 59	3	credit
40 - 49	4	pass
below 40	F	fail

Blind - the inability to see, thus not being able to read print. Reading of braille by the totally blind is done through touch, as opposed to reading of braille using eyes by the partially sighted.

Teacher quality - refers to the type of professional qualification possessed by teachers in terms of certificate, diploma or degree attained.

Student background - refers to whether a given blind grade 9 is repeating grade 9 or not.

Specialist teacher - is that teacher already in the teaching service who has had additional specialist training in any one of the following areas of specialisation:- the blind, the deaf, the mentally handicapped, and the physically handicapped. He/She is attached to special schools, and units in integrated primary and secondary schools.

Teaching materials and equipment - These are the facilities such as brailled textbooks, maps and charts; perkins, frame

and stylus, and so on, which make learning among blind students possible.

Attitude - the predisposition of the individual to evaluate some symbol or object of his world in a favourable or unfavourable manner ---- Attitudes include the affective or feeling core of liking or disliking, and the cognitive, or belief elements which describe the effect of the attitude, its characteristics and its relations to other objects.

Organisation of the remaining chapters of the study

Chapter two - provides the review of related literature, focussing on some studies done in Zambia among the visually impaired, and some studies done abroad.

Chapter three - discusses the methodology with particular emphasis on the population, sample, instruments, data collection procedure, and data analysis.

Chapter four - covers the presentation of results.

Chapter five - is about discussion of results.

Chapter six - provides summary, conclusions and recommendations, especially aspects related to suggestions for further studies in the field of special education with particular emphasis on the blind.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews some related literature, both locally and internationally.

Some works done in Zambia on the visually impaired

Some work has been done in the field of blindness - an aspect of special education. Students at the Lusaka College for Teachers of the Handicapped have presented yearly papers, which lack substantiation, on the blind. Kapijimpanga (1988), based her work on the education of the blind child in Zambia. She provides information about informal education given to blind children from birth to the period before they entered school such as sitting training, mobility training, and activities like eating, dressing and toilet training. Details about residential and resource centers and the unit system in Zambia were provided. These ranged from definitions to their advantages and disadvantages. Teaching methods used in the teaching of blind students were covered. These were: individualisation, where each child is recognised as an individual different from his peers; concreteness where touch observation is used; unified instruction where 'whole' picture presentation through actual concrete experience and through explanation and sequencing or touch and smelling is done; additional simulation - involving orienting the blind to wider environment through systematic stimulation such as singing; and self-activity - involving a blind pupil doing things himself such as activities in home economics and industrial arts. Finally, reference was made to devices used in the teaching of blind pupils. These were optical aids

such as spectacles, tinted glasses, and magnifiers; and non-optical aids such as large type books, tactual aids like braille typewriters, frame and stylus, and auditory aids like radios, television, and cassette tapes. Kapijimpanga (1988), confirms that there is lack of teaching equipment in schools. For instance, she found out that in most cases, specialist teachers have been forced to teach the sighted children because of lack of apparatus in their units. She further mentioned that though the government agrees that a blind child must have the same right to education, as the sighted child, it has not been administratively and financially practical to do so in the past in a developing country like Zambia. She however failed to give concrete evidence to illustrate the above.

Katwishi (1988), provided in his article, information relating to the evolution of education among the blind at global level, from ancient times when the blind were wholesomely subjected to various stereotypes such as denial of education to the time when there was positive change. The Zambian society, which also had negative attitudes towards the blind, could not provide education to the blind not until missionaries arrived in the country at the close of the 19th century. The first school as a result started as late as 1905 at Magwero. More schools for the blind were set up by mission agencies in the later years, while no single school was built by the colonial government. When the Zambian government took over the running of blind schools from missionaries and other agencies, a concerted effort was made in the provision of education to the blind in special schools and integrated schools. Integration covered sectors such as primary, secondary, college and university. He also outlined the problems of integration

such as abnormal classes, ignorance of ordinary teachers on handling of blind students; and recommendations aimed at improving the education for the blind such as training of personnel dealing with blind students.

Government assisted the blind in Special Schools and integrated schools mainly through international agencies and institutions such as SIDA, FINNIDA, NORAD and the LIONS. However, there was a gradual withdrawal of the assistance rendered resulting in less assistance being given by international organisations today. The Zambian government, which is experiencing financial problems, has now become the major financier of special schools. The effect of the withdrawal of assistance was felt around 1990. Some of the Perkins Braillers, ordinary typewriters, tape recorders which were in place initially, have broken down. There has been the problem of vandalism due to lack of proper care by users and thefts. No repair service is provided to equipment. The Ministry of Education has tried to train some teachers in repair work through seminars but that has not been adequate.

Kasonde-Ng'andu (1986), examined aspects of the upbringing and education of children with special education needs in a rural Zambian Bemba culture. Methodology involved interviewing parents caregivers and teachers of children with special educational needs with special focus on the mentally handicapped. Non Special Educational Needs (NONSEN) children were interviewed on issues related to child upbringing. Teachers' reaction was monitored in the newly opened special unit where Special Educational Needs (SEN) children had been enrolled. The study revealed that lives of SEN children were generally similar in aspects

such as coping with environmental demands, capability of leading an independent life on reaching maturity, Adaptive Behaviour measures which are more suitable to our Zambian needs than the Intelligence Quotient measures. She pointed out that some parents/caregivers treated SEN children more like younger children in areas such as discipline, achievement expectations and sleeping arrangements. In addition, the educated and non-educated differed in their views about child-care. Integration of SEN children in regular schools was generally accepted by teachers though the majority of the teachers and pupils were initially opposed to the idea. Finally, Kasonde-Ng'andu strongly advised that parents and teachers must be aware of the rights and special needs of SEN children.

In the Educational Reforms (1976), reference was made to the new system of education intended to cater for all Zambians, the handicapped inclusive. Principles such as the elimination of illiteracy, ten years' compulsory education to be extended to handicapped citizens, were outlined. Senior secondary, college and university education under the integration programme in ordinary educational institutions was to be extended to the handicapped who qualified. Government takeover of special education in 1971 and its responsibilities in relation to staffing, teacher education, funding, provision of special education furniture and equipment, were highlighted. Further, an Inter-Ministerial Committee on Special Education was to be formed with duties such as placement of handicapped graduates and advising on priorities for development of special education. It was also pointed out that government lacked professional competence in handling the handicapped in areas such as

content but was diffferent only in terms of medium of instruction, that is, audio-tutorial versus braille. Analysis revealed that audio-tutorial sections of the manual were completed and learnt significantly faster than were braille sections and that audio-tutorial performance test scores were significantly higher than were braille performance test scores.

In England and Wales research was carried out among the blind and partially sighted pupils by researchers with the help of medical officers. The method involved examination of medical records and registration. Further, each child was discussed with the teacher and observed in classroom at work and outside at play. The Stanford Binet test was used in testing the intelligence quotient of the subjects. Under clinical diagnosis causes of blindness were outlined. A decision was made about educational placement of each child. Additional handicaps, blind mannerisms, relationship between home and parents and children attitudes were examined. The study revealed that blind students activities such as performance in class were affected by the following factors:- the teacher's emotional stability and educational progress; unsatisfactory attitudes and abnormal circumstances; emotional disturbances among most students; and blind mannerisms such as eye poking, rocking, hand flapping, head-nodding and twirling, fidgeting and jerking, finger sucking, nail biting, jumping up and down, head drooping, and grimacing and scratching (Shirly, 1968).

Norris et. al. (1957), carried out a five year study of all pre-school children in Chicago in the United States of America. The study

had the task of determining the degree of freedom of organisation and re-organisation in the brain that can minimise the behavioural significance of a primary sensory handicap such as blindness. Using rating scales, a major conclusion was made that the blind child can develop into an independent freely functioning individual who compares favourably with sighted children in his total adaptation.

Kim (1979), studied adult blind persons in Minneapolis in the United States of America. His investigation focused on the sighted person's acceptance or rejection of the blind person and the blind person's different reactions to the sighted person. He revealed that stereotypes of the majority over the minority were a barrier to integration in the Minnepolis community. Thus he made recommendations on the education of the sighted persons about blind persons. He also verified that social life of blind persons is subject to the principle of community formation.

Selfe and Stow (1981:43), stated the problems of the visually impaired in the United Kingdom, such as:- failure of some blind babies to crawl; mobility problems which may result into other aspects of development being retarded; inability for imitative play even up to three years; difficulty in braille learning such that mechanics of braille reading may not be mastered even by up to eleven years of age; and that time allowance for examinations is a necessity since most blind students seem to be slow. Similarly, Toplis (1979:39) outlined the findings of the 1967 Plowden Report which stated that unnecessary segregation of the handicapped was neither good for them nor for those

with whom they must associate, and that they should therefore be placed in ordinary schools wherever possible.

The above literature generally showed that problems such as stereotypes and inadequate education associated to blindness which started time immemorial were still prevalent in our contemporary society. Various social, educational, psychological and technological studies have been conducted among the blind in some countries, especially in the western world, in situations such as comparing the sighted with blind students, blind adult persons with sighted adults, and blind students as a separate group. However, not many such studies seem to have been done in Zambia. Th study therefore attempted to establish whether the factors of academic performance would lead to any significant difference in the scores attained in history between blind students in integrated schools and those in special schools in Zambia.

CHAPTER THREE

METHODOLOGY

This chapter discusses the population, sample, instruments, data collection procedure and data analysis.

Population

The estimated total population of blind students in primary, basic and integrated secondary schools in Zambia in 1990 was 531 (see Table 1 and Appendix E).

TABLE 1

DISTRIBUTION OF BLIND STUDENTS IN PRIMARY, BASIC AND INTEGRATED SECONDARY SCHOOLS IN ZAMBIA IN 1990

SCHOOL SECTOR	PRIMARY	BASIC	INTEGRATED SECONDARY	TOTAL
NUMBER OF BLIND STUDENTS	234	235	62	531

Sample

A sample of blind grade 9 students and their history as well as resource teachers was obtained from the only two basic special schools - St. Mary's Basic and Ndola Lions Basic; and two integrated schools - Kalomo secondary school and Sefula secondary school. Sefula and Kalomo secondary schools were selected because they had blind grade 9 students in 1990. It is not always the case that integrated secondary schools have blind students in all the five grades each year. Special attention was given to all the totally blind grade 9 students with the exception of the partially sighted, in the selected schools (see tables 2, 3 and 4). The 14 sample students were out of an estimated total population of 531 blind students found in primary, basic and integrated secondary schools in Zambia in 1990 (see tables 1 and 3 and Appendix E).

TABLE 2

DISTRIBUTION OF SAMPLE SCHOOLS USED IN THE STUDY

URBAN	URBAN	SEMI-URBAN	RURAL
Southern	-	Kalomo Sec. School (Kalomo)	-
Western	-	-	Sefula Sec. Sch. (Sefula)
Copperbelt	Ndola Lions Basic (Ndola	-	-
Luapula	-	-	St. Mary's Basic School (Kawambwa)
Lusaka	*Munali Sec. Sch. (Lusaka)	-	-

* School where pilot study was done.

TABLE 3

DISTRIBUTION OF THE TOTALLY BLIND GRADE 9 STUDENTS PER SCHOOL

	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
Ndola Lions Basic	5	-
Kalomo Sec. Sch.	-	1
Sefula Sec. Sch.	-	4
St. Mary's Basic	4	-
TOTAL SAMPLE	9	5

TABLE 4

DISTRIBUTION OF HISTORY AND RESOURCE TEACHERS FOR BLIND GRADE 9 STUDENTS PER SCHOOL

	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
Ndola Lions Basic	4	-
Kalomo Secondary School	-	3
Sefula Secondary School	-	3
St. Mary's Basic	4	-
TOTAL SAMPLE	8	6

Instruments

In order to carry out this study, two types of research instruments were employed. These were tests and a questionnaire (see Appendices A, B, C and D). The three tests in the history subject were set by the researcher based mainly on the junior secondary school leaving examination pattern. These were edited by a teacher of history who was not involved in the setting before being treated as final. The questions asked in the tests covered grade 8 content of the junior history syllabus because not much of the Grade 9 content had been covered at the time the research was being conducted. The tests consisted of objective and essay type questions covering aspects like multiple choice, time chart, one word or short phrase completion exercises, summary, map, comprehension and essay. The main purpose was to tap cognitive domains as stated by Garvey and Krug (1977) that

it is ideal for the teacher of history to allot to each student achievement he wants to measure a suitable testing procedure, as follows:-

objective testing - for factual knowledge and simple cognitive skills, achieved through a single word or phrase, alternative response questions, time chart, and multiple choice questions;

interpretive testing - for assessing skills such as translation, drawing of inferences, imaginative reconstruction, and testing hypotheses, realised through summary, comprehension and map exercises;

the essay-type testing - which involves assembling evidence, arguing a case, and synthesizing knowledge. The worthiness of the tests was realised after a pilot study conducted at Munali secondary school in Lusaka, where the only blind grade 9 was tested. The pilot study revealed that the questions were quite fair. This meant that the questions were appropriate for grade 9s because most of the attempted questions were correctly done by the pretested student who obtained an average of 51 percent in the three tests. The last two sections of test 1 and test 2 were cancelled because questions which were not very difficult, were too many to be completed in the stipulated time of 2 hours 48 minutes. It is policy in special education that the blind students be given a forty percent extra time allowance of the normal time because they generally tend to be slow. The tests if given to the sighted would last for two hours each. However, test 3 was not adjusted because it was within the time limit. The tests were administered at the following intervals:- test 1 was given in the morning of day one, test 2 in the afternoon of the same day while test 3 was given in the morning of day two.

The questionnaire (see Appendix D) prepared for this study was made up of two parts. Part I was to be completed by history and resource teachers of blind grade 9 students, while blind students were given an oral interview by the researcher based on part II of the questionnaire. This questionnaire was devised in such a way that it could furnish information about teacher quality, teaching materials and equipment used, teacher attitudes, and their views about the running of special schools and integrated schools (see questions A1-3, B1-5 and C1-12 Appendix D Part I); and student background, students' views about their history and resource teachers as well as the history subject (see questions A 1 and 2, and B1-7 Appendix D Part II). The questions covered in the questionnaire were verified by the researcher's two supervisors and an expert at questionnaire setting at the University of Zambia Education Research Bureau. These proved to be extracting the expected information vital for this study after a pilot study had been conducted at Munali secondary school among the history and specialist teachers, and the blind grade 9 student. Teacher attitudes towards blind grade 9 students in the two types of schools were measured using a Likert scale, which was also used in 1936 by Rundquist and Sletto in their study of the morale of American people during the great depression (Duverger, 1968). Similarly, Njobe (1983:30), in his thesis made reference to the Likert-type of scale. Favourable statements were coded plus (+) while unfavourable statements were coded minus (-) (see Appendix D Part IC). Table 5 below shows the numerical scoring scale 5,4,3,2,1 on the favourable and unfavourable attitude items, as adopted in this study.

TABLE 5

NUMERICAL SCORING GUIDE

	STRONGLY AGREE	AGREE	UNDECIDED	DIS-AGREE	STRO-NGLY DIS-AGREE
Favourable Item	5	4	3	2	1
Unfavourable Item	1	2	3	4	5

The larger the total attitude score for a given respondent on the items, the more positive his/her attitude on what was being measured. That is, all the total scores of the attitude items which fell well above the mid-point of the maximum score indicated that individuals had positive attitudes towards what was being measured. Of the twelve attitudes items used in this study, items 2,5,6,11 and 12 were favourable while the rest were unfavourable. The minimum score for the twelve items was 12, the maximum score was 60 while the mid point was 30. Although favourable statements were coded plus (+) while unfavourable statements were coded minus (-) to facilitate analysis and understanding of teacher attitudes, these statements had not been coded in the actual questionnaire administered to teachers when data was being collected in the field, in order to avoid influencing them in the choice of their responses they were to give.

Data collection procedure

Two main instruments were used for this research. These were the administration of tests and questionnaire. Three common tests, each lasting two hours and forty-eight minutes, were given to blind grade 9

students in the selected special schools and integrated schools. Blind grade 9 students were instructed to write their names and the name of the school on the answer sheets to facilitate marking, classification into sub-samples and analysis. They were asked to answer all sections presented in the tests. Finally, they were reminded to read instructions carefully given under each section before proceeding to answer the questions.

A structured interview was the last activity for blind grade 9 students. The questionnaire completion was the only activity teachers carried out during this research. The researcher devoted a few minutes towards introducing the questionnaire to blind students and their teachers and reminding them about the importance of the exercise they were about to undertake. Respondents (both teachers and students) were asked to answer all questions in their respective parts, that is, part I and part II. They were cautioned not to write their names on the questionnaires, in the case of teachers, while blind students were not expected to give their names. They were then reminded to present information in good faith about themselves and their views about the education of blind grade 9 students in their respective schools. Later the researcher read out questions and their alternatives and marked the answers in accordance with the views of blind grade 9 students. A maximum of five minutes was spent with each respondent. The structured interview was part II of the questionnaire devised for this study. Questionnaires were distributed to teachers of blind grade 9 students in special schools as well as the history and specialist teachers of blind grade 9 students in integrated schools after the general introduction. These were collected as soon

as the teachers had completed them. Teachers completed part I of the questionnaire designed for this study. Each teacher spent a maximum of fifteen minutes completing the questionnaire. The whole exercise of data collection lasted for a period of four weeks in the months of March and April, 1990.

Data Analysis

Analysis of data involved finding out whether or not:-

i. blind grade 9 students in special schools performed better in history tests than their counterparts in integrated schools, or vice versa;
ii. academic performance among blind grade 9 students in history in special schools and integrated schools was the same;
iii. academic performance of blind grade 9 students in history was affected by the following:- availability of teaching equipment and materials; teacher quality; student background; teacher attitudes; and so on.

Descriptive statistics (that is, means, standard deviations and percentages) were used in the analysis of data. However, for comparison purposes of the groups, the t-test was employed to determine the significance of the difference in:-

1. the scores obtained by blind grade 9 students in history in integrated schools and special schools; and

2. teacher attitudes towards blind grade 9 students in integrated schools and special schools, at 0.05 alpha level - as reflected in the next chapter.

CHAPTER FOUR

PRESENTATION OF RESULTS

This chapter discusses the scores obtained by students in history in special schools and integrated schools, based on the tests as given in Appendices A, B and C; teacher attitudes in special schools and integrated schools based on instruments administered in Appendix D Part I C in response to the earlier stated hypotheses: blind students in schools with poor conditions of learning such as lack of adequate teaching materials and equipment like brailled textbooks, braille typewriters; specialist teachers perform poorly in history; and teachers in segregated special schools have more positive attitudes towards blind students than teachers in integrated schools. In addition, teacher quality, teaching materials and equipment, student background teachers' and students' views about the organisation of special schools and integrated schools are presented (see Appendix D).

Student scores

Based on the average scores, three students passed the history tests - two obtained credits while the third obtained a pass. This represented 33% of this sub-sample (see table 6a).

TABLE 6a

RAW MARKS FOR BLIND GRADE 9 STUDENTS IN SPECIAL SCHOOL

		SCORE IN HISTORY TESTS - 100% EACH			
STUDENT	SEX	TEST 1	TEST 2	TEST 3	AVERAGE
A	F	66	37	52	52
B	F	44	39	32	38
C	F	11	14	24	16
D	M	59	51	52	54
E	M	11	11	12	11
AA	F	43	50	49	47
BB	F	33	43	33	36
CC	F	16	27	21	21
DD	M	36	21	32	30
MEAN		35.5	32.5	34.1	33.8
STANDARD DEVIATION		19.9	14.9	14.2	15.6

Based on the average scores, one student passed the history tests. This was a representation of 20% of this sub-sample (see table 6b)

TABLE 6b

MEAN AND STANDARD DEVIATION OF SCORES FOR STUDENT SAMPLE IN SPECIAL SCHOOLS AND INTEGRATED SCHOOLS

		SCORE IN HISTORY TESTS - 100% EACH			
STUDENT	SEX	TEST 1	TEST 2	TEST 3	AVERAGE
A	M	39	29	35	34
B	M	41	41	27	36
C	M	63	24	40	42
D	F	14	23	18	18
AA	M	23	24	32	26
MEAN		36	28.2	30.4	31.2
STANDARD DEVIATION		18.8	7.5	8.3	9.3

Blind grade grade 9 students in special schools and integrated schools showed the following differences in the scores obtained in history tests in terms of means and standard deviation:-
in test 1 there was a difference in the mean of -0.6 and a difference of 1.1. in standard deviation; test 2 showed a mean difference of 4.3 and a difference in standard deviation of 7.4; test 3 had a difference in the means of 3.7 and a difference in standard deviation of 5.9; and the average showed a difference in the means of 2.6 and a difference in the standard deviation of 6.3 (see table 6c).

TABLE 6c

MEAN AND STANDARD DEVIATION OF SCORES FOR STUDENT SAMPLE IN SPECIAL SCHOOLS AND INTEGRATED SCHOOLS

		TEST 1	TEST 2	TEST 3	AVERAGE
SPECIAL SCHOOLS	MEAN	35.4	32.5	34.1	33.8
	STANDARD DEVIATION	19.9	14.9	14.2	15.6
INTE-GRATED SCHOOLS	MEAN	36	28.2	30.4	31.2
	STANDARD DEVIATION	18.8	7.5	8.3	9.3

A t-test was employed to find out whether there was any significant difference in the academic performance in the history tests between blind grade 9 students in special school and integrated schools. Using the sample size 9, mean ($\bar{x}$) 33.8 of the average score and standard deviation (SD) 15.6 of the average score in special schools and the

sample size 5, mean 31.2 of the average score and standard deviation 9.3 of the average score in integrated schools, -0.4 was obtained as the computed value while -2.776 was obtained as the critical value at 5% alpha level, two tail with 4 as the degree of freedom. Since the computed value (-0.4) was outside the critical region (-2.776), the null hypothesis could not be rejected (see table 7).

TABLE 7

TESTING FOR SIGNIFICANCE IN STUDENT SCORES USING t-test

	SPECIAL SCHOOLS	INTEGRATED SCHOOL
SAMPLE SIZE	9	5
MEAN ($\bar{x}$) OF AVERAGE SCORE	33.8	31.2
STANDARD DEVIATION (SD) OF AVERAGE SCORE	15.6	9.3
- Computed value = -0.4 - Critical value = -2.776 at 5% alpha level, two tail. - Degree of freedom = 4		

Teacher attitudes

An investigation was carried out with the view to finding out the nature of teacher attitudes towards their respective students in the selected special schools and integrated schools (see Appendix D Part IC). A total of twelve items, five favourable and seven unfavourable, were selected to measure teacher attitudes in the sample schools. For measurement purposes, the maximum score was 60, the minimum score was 12 and the mid-point was 30. All teachers for the blind grade 9 students in special schools scored above the mid-point of 30 (see table 8a). Similarly, all teachers for blind grade 9 students in integrated schools scored above the mid-point of 30 (see table 8b).

TABLE 8a

TEACHERS' ATTITUDE SCORES IN SPECIAL SCHOOLS

ITEM	TEACHER							
	A	B	C	D	E	F	G	H
1	4	1	4	4	1	4	4	5
*2	2	4	5	5	5	5	4	4
3	4	3	4	5	2	5	4	4
4	2	1	2	1	1	1	1	2
*5	4	5	4	5	5	5	2	4
*6	4	1	4	1	1	5	1	2
7	2	2	2	1	1	1	2	2
8	4	1	4	4	1	5	1	2
9	4	4	4	4	1	1	4	3
10	2	4	4	5	5	5	2	2
*11	2	4	4	5	5	5	2	2
*12	2	4	4	5	5	5	5	5
TOTAL SCORE	38	34	45	44	33	43	32	38

NOTE:

1. Table 8a shows teacher responses to twelve attitude items. The numerical scoring scale was 5-1 for unfavourable items towards blind students and 1-5 for unfavourable items. The scale ranged from strongly agree, agree,/undecided, disagree to strongly disagree. The minimum score for the twelve items was 1 x 12 = 12, the maximum score 5 x 12 = 60 and the mid-point was 30. Total scores well above 30 indicate positive attitude while total scores well below 30 indicated negative attitude towards students.

2 * indicates favourable items, while the rest were unfavourable (see Appendix D Part I C).

TABLE 8b

TEACHERS' ATTITUDE SCORES IN INTEGRATED SCHOOLS

ITEM	TEACHERS					
	A	B	C	D	E	F
1	5	1	2	5	5	2
*2	5	4	5	5	5	5
3	4	2	4	5	4	4
4	2	2	1	1	2	1
*5	5	4	1	5	1	1
*6	2	4	1	2	2	2
7	2	2	1	2	2	1
8	5	2	5	1	5	5
9	2	4	2	5	2	2
10	4	4	5	2	5	1
*11	2	5	5	3	2	5
*12	4	5	5	5	5	2
TOTAL	42	39	41	44	43	35

* indicates favourable items, while the rest were unfavourable (see Appendix D Part I C).

NOTE: For details about table 8b, see footnote below table 8a.

Differences were recorded in the mean and standard deviation of -2.3 and 1.888 respectively in teacher attitudes in the two types of schools. The values - sample size 8, mean 38.3 and standard deviation 5.153 of the total score in special schools and sample size 6, mean 4.0 and standard deviation 3.265 of the total score in integrated schools were employed to test whether there was any significant difference in attitudes between teachers in special schools and teachers in integrated schools

using t-test at 0.05 alpha level, two tail with 5 as the degree of freedom. It was found that the computed value (1.019) was outside the critical region (2.776). This meant that we could not reject the null hypothesis (see table 8c).

TABLE 8c

TESTING FOR SIGNIFICANCE IN TEACHER ATTITUDES USING t-test

	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
SAMPLE SIZE	8	6
MEAN ($\bar{x}$) OF TOTAL SCORE	38.3	40.6
SD OF TOTAL SCORE	5.153	3.265
- Computed value = 1.019 - Critical value = 2.776 at 0.05 alpha level, two tail. - Degree of freedom = 5		

Teacher quality

Teacher qualification in special schools and integrated schools has been illustrated in table 9 below:-

Of the teachers interviewed in special schools, six (75%) were certificate holders, two (25%) were diploma holders, and there was no degree holder. In integrated schools, one (15%) was a certificate holder, two (33%) were diploma holders, while three (50%) were degree holders. In terms of years of service, three teachers in special schools had served between 0 and 5 years, three teachers had served

between six and ten years, and two teachers had served between eleven and twenty years. In integrated schools, two teachers had served between six and ten years, while four teachers had worked between eleven and twenty years. Special schools had seven (88%) specialist teachers for the blind and one (12%) non-specialist teacher. Integrated schools had three (50%) specialist teachers for the blind and three (50%) non-specialist teachers for blind grade 9 students. Three teachers each indicated that they taught history in both types of schools (see table 9).

TABLE 9

TEACHER QUALIFICATION IN SPECIAL SCHOOLS AND INTEGRATED SCHOOLS

	CERT-FICATE	DIPLOMA	DEGREE	SPECIALIST TEACHER
SPECIAL SCHOOL N = 8	6 (75%)	2 (25%)	-	7 (88%)
INTEGRATED SCHOOLS N = 6	1(17%)	2 (33%)	3 (50%)	3 (50%)
TOTAL	7	4	3	10

N = Total number of teachers for blind grade 9 students in special schools and integrated schools.

Teachers' views on:-

a) Teaching problems in history

Teachers were asked to identify the teaching problems they encountered in history in their schools (see question 2, Appendix D part IB). Three (38%) of the 8 teachers in special schools and three (50%) of the 6 teachers in integrated schools felt that there were problems of lack of teaching equipment such as braille typewriters, thermform, frame and stylus; as well as non-funding of school activities such as buying of textbooks. Further, seven (88%) of the 8 teachers in special schools and four (67%) of the 6 teachers in integrated schools indicated that there was the problem of lack of teaching aids such as embossed maps, brailled charts, radios, and radio cassettes. This view was rated highly by both groups. Two (25%) of the 8 teachers in special schools and one (17%) of the 6 teachers in integrated schools held the view that additional problems existed in the teaching of history besides the ones cited above. They mentioned the non-availability of the thermform machine used for reproducing prepared teaching materials and tests and lack of uniformity in the construction of learning aids, which may distort the acquisition of knowledge by blind students (see table 10).

TABLE 10

TEACHERS' RESPONSE FREQUENCES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON TEACHING PROBLEMS IN HISTORY

*ALTERNATIVES	TEACHERS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 8	INTEGRATED SCHOOLS N = 6	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
a	3	3	38	50	0.75	0.75	0.442	0.343
b	3	3	38	50	0.75	0.75	0.442	0.343
c	7	3	88	67	1.75	1.00	1.031	0.457
d	2	1	25	17	0.50	0.25	0.294	0.114

x = 15 x = 11

N = Total number of teachers for blind grade 9 students in a given type of schools.

* For details to alternatives, see Appendix D part 1B

NOTE:

1. Data was coded using the multiple mention coding system.

2. For analysis purposes in this study, only percentages and actual counting of responses have been employed. However, other statistical details about the variable are also shown.

b) Instruments for students

In question 3 (see Appendix D part I B) teachers in special schools and integrated schools were requested to indicate the instruments available to students for their use in the learning of history subject. Three (38%) of the 8 teachers in special schools and three (50%) of the 6 teachers in integrated schools indicated that the braille typewriters (or Perkins) was in use. Teachers in integrated schools had a slightly higher percentage than their counterparts in special schools, as shown above. Four (50%) of the 8 teachers in special schools and five (83%) of the 6 teachers in integrated schools showed that the writing frame and stylus, and braille paper were in use in their respective schools. Four (50%) of the 8 teachers in special schools and one (17%) of the 6 teachers in integrated schools had not responded to the question (see table 11).

TABLE 11

TEACHERS' RESPONSE FREQUENCIES PERCENTAGES, MEANS, AND STANDARD DEVIATION ON INSTRUMENTS FOR STUDENTS

*ALTER-NATIVES	TEACHERS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 8	INTE-GRATED SCHOOLS N=6	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
a	3	3	38	50	0.6	0.6	0.07	0.28
b	4	5	50	83	0.8	1.0	0.09	0.46
c	4	5	50	83	0.8	1.0	0.09	0.46
d	4	5	50	83	0.8	1.0	0.09	0.46
NO RESPONSE	4	1	50	17	0.8	0.2	0.09	0.09
	x = 19	x=19						

NOTE: For details about table 11, see footnote under table 10.

* For details to alternatives, see Appendix D part 1 B

c) Factors which may promote high scores in history.

Teachers in the two types of schools were asked to give their opinions about the factors which may promote attainment of high scores in the history subject among blind grade 9 students in their respective schools (see question 4, Appendix D part I B). Two (25%) of the 8 teachers in special schools and three (50%) of the 6 teachers in integrated schools stated that giving of remedials after difficult lessons was important. More teachers in integrated schools favoured the remedial idea than in special schools. Four (50%) of the 8 teachers in special schools and four (67%) of the 6 teachers in integrated schools felt that availability of brailled textbooks, and the use of all possible visual aids during lessons promoted attainment of high scores in history. Both groups appear to have advanced the two views above positively. Three (38%) of the 8 teachers in special schools and four (67%) of the 6 teachers in integrated schools were of the opinion that availability of trained staff in special education was an important factor. A larger representation of teachers in integrated schools favoured the above opinion than in special schools. One (13%) of the 8 teachers in special schools and none in integrated schools felt that there was more to the question than the opinion given above. He indicated that embarking on educational tours to places of historical importance such as historical sites and museums would enhance the understanding of historical facts among students. Lastly, four (50%) of the 8 teachers in special schools and one (17%) of the 6 teachers in integrated schools decided not to answer the questions (see table 12).

TABLE 12

TEACHERS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS, STANDARD DEVIATIONS ON FACTORS WHICH MAY PROMOTE HIGH SCORES IN HISTORY

*ALTER-NATIVES	TEACHERS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N=8	INTE-GRATED SCHOOLS N=6	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
a	2	3	25	50	0.33	0.51	0.14	0.33
a	4	4	50	67	0.66	0.67	0.28	0.44
c	3	4	38	67	0.50	0.67	0.21	0.44
d	4	4	50	67	0.66	0.679	0.28	0.44
e	1	0	13	-	0.16	-	0.07	-
NO RESPONSE	4	1	50	17	0.66	0.16	0.28	0.11
	x=18	x=16						

NOTE: For details about table 12, see footnote below table 10.

* For details to alternatives, see Appendix D part 1 B

d) Role of the Zambian government

Teachers in special schools and integrated schools were asked to air their opinion about what they think should be the role of the Zambian government in the education for the blind (see question 5, Appendix D part I B). Eight (100%) of the teachers in special schools and five (83%) of the 6 teachers in integrated schools advocated for government promotions of in-service training among the serving staff, and for government financing of the necessary teaching equipment and teaching material. In addition, eight (100%) of the teachers in special schools and six (100%) of the teachers in integrated schools claimed that the government should provide enough incentives to teachers of the blind. Seven (86%) of the 8 teachers in special schools and five (83%) of the 6 teachers in integrated schools expected the government to maintain a viable inspectorate for the blind students and their teachers. The above views were rated highly by teachers in both types of schools. Finally, one (13%) of the 8 teachers in special schools, but none in integrated schools, wanted the government to provide overseas training opportunities to teachers of the blind (see table 13).

TABLE 13

TEACHERS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON THE ROLE OF THE ZAMBIAN GOVERNMENT IN THE EDUCATION FOR THE BLIND

*ALTER-NATIVES	TEACHERS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N=8	INTE-GRATED SCHOOLS N=6	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
a	8	5	100	83	1.6	1.0	0.76	0.56
b	8	5	100	83	1.6	1.0	0.76	0.56
c	8	6	100	100	1.6	1.2	0.76	0.68
d	7	5	86	83	1.4	1.0	0.66	0.56
e	1	0	13	-	0.2	-	0.09	-
	x=32	x=21						

NOTE: For details about table 13, see footnote below table 10.

* For details to alternatives, see footnote below table 10.

Student background

Of the 9 students in special schools, two (22%) were repeaters who were among the three students who on average passed the history tests, while seven (78%) were non-repeaters in grade 9. All the five (100%) blind grade 9 students in integrated schools were non-repeaters. Eight (89%) of the 9 students in special schools and three (60%) of the five students in integrated schools had ages ranging between 16 years and 18 years, and they were in the majority. One (20%) of the five students in integrated schools and none in special schools had the age ranging between 13 years and 15 years. One (11%) of the 9 students in special schools and one (20%) of the five students in integrated schools had ages ranging between 19 years and 21 years (see tables 14 and 15).

TABLE 14

REPEATERS AND NON-REPEATERS

	NUMBER OF REPEATERS	NUMBER OF NON-REPEATERS
SPECIAL SCHOOLS N = 9	2(22%)	7 (78%)
INTEGRATED SCHOOLS N = 5	0	5 (100%)

TABLE 15

AGE RANGE FOR THE SAMPLE STUDENTS

AGE RANGE	SPECIAL SCHOOLS N = 9	INTEGRATED SCHOOLS N = 5
13 - 15 Years	-	1 (20%)
16 - 18 Years	8 (89%)	3 (60%)
19 - 21 Years	1 (11%)	1 (20%)

In question 1a (see Appendix D part IIB) students were asked whether or not they liked their school bearing in mind that there were other types of schools elsewhere. Eight (89%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools stated that they liked their respective schools. One (11%) of the 9 students in special schools and one (20%) of the 5 students in integrated schools indicated that they did not like their respective type of schools (see table 16).

TABLE 16

STUDENTS' RESPONSE FREQUENCIES, MEANS AND STANDARD DEVIATIONS ON WHETHER THEY LIKE OR DISLIKE THEIR TYPE OF SCHOOL

*ALTERNATIVES	STUDENTS RESPONSE FREQUENCY		PERCENTAGE		MEANS		STANDARD DEVIATION	
	SPECIAL SCHOOLS N = 9	INTE-GRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOL	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
LIKE	8	4	89	80	4.0	2.0	4.39	1.69
DISLIKE	1	1	11	20	0.5	0.5	0.54	0.42
	x = 9	x = 5						

N = Total number of the totally blind grade 9 students in a given type of schools.
* For details to alternatives, see Appendix D part IIB
NOTE: 1. Data was coded using the multiple mention coding system.
2. For analysis purposes in this study, only percentages and actual counting of responses were employed. However, for other statistical details about the variable, see table above.

In question 1b (see Appendix D part II B) the students were asked to give reasons why they liked their respective type of schools. Eight (89%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools referred to good subjects offered as an important factor. Six (67%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools mentioned the helpful teachers and non-teaching staff. Six (67%) of the 9 students in special schools and three (60%) of the 5 blind grade 9 students in integrated schools referred to buildings found in their respective schools. Further, seven (78%) of the 9 students in special schools and on (20%) of the 5 students in integrated schools made reference to other factors such as clubs (debate, music, drama, mathematics, Chongololo), sports, and being found in home area. Lastly, one (11% of the 9 students in special schools and one (20%) of the 5 students in integrated schools decided not to give any reason for liking their respective type of schools (see table 17).

TABLE 17

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS, STANDARD DEVIATIONS ON REASONS WHY THEY LIKE THEIR RESPECTIVE TYPE OF SCHOOLS

*ALTERNATIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGE		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTEGRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
i	8	4	89	80	1.6	0.8	0.77	0.46
ii	6	4	67	70	1.2	0.8	0.57	0.46
iii	6	3	67	70	1.2	0.6	0.57	0.35
iv	7	1	78	20	1.4	0.2	0.67	0.12
NO RESPONSE	1	1	78	20	1.2	0.2	0.09	0.12
	x = 28		x = 13					

NOTE: For details about table 17, see footnote below table 16.

* For details to alternatives, see Appendix D Part II B.

Students were asked to check the subjects they liked best in their schools (see question 2, Appendix D part II B). Eight (89%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools indicated that history was among their favourite subjects such as English and Geography (see Table 18).

TABLE 18

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON SUBJECTS THEY LIKE BEST IN THEIR RESPECTIVE SCHOOLS

*ALTERNA-TIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGE		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTE-GRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE GRATED SCHOOLS
a	6	0	67	-	0.75	-	0.32	-
b	7	4	78	80	0.87	0.50	0.37	0.38
c	8	3	89	60	1.00	0.38	0.42	0.29
d	5	2	56	40	0.62	0.25	0.26	0.19
e	8	4	89	80	1.00	0.50	0.42	0.38
f	3	3	33	60	0.37	0.38	0.16	0.29
g	4	1	44	20	0.50	0.13	0.21	0.09
h	2	0	22	-	0.25	-	0.11	-
	x = 43	x = 17						

NOTE: For details about table 18, see footnote below table 16.

* For details to alternatives, see Appendix D part II B.

In question 3 (see Appendix D part II B) students were asked to rate the history subject in terms of its being simple, average or difficult. Nine (100%) of the students in special schools and four (80%) of the 5 students in integrated schools indicated that the history subject was simple. One (20%) of the 5 students in one of the integrated schools and none in special schools indicated that history was an average subject. No student in both types of schools rated history as being difficult (see table 19).

TABLE 19

STUDENTS' RESPONSE FREQUENCIES PERCENTAGES, MEANS AND STANDARD DEVIATION ON WHETHER HISTORY WAS SIMPLE, AVERAGE OR DIFFICULT

*ALTERNATIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGE		MEAN		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTEGRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
a	9	4	100	80	4.5	2.0	6.36	1.69
b	0	1	-	20	-	0.5	-	0.42
	x = 9	x = 5						

NOTE: For details about table 19, see footnote below table 16.

* For details to alternatives, see Appendix D part II B.

Students' views on:-

a) Teaching aids in use

In question 4 (see Appendix D part II B) students were asked to check the teaching aids used by the teachers of history in their learning of the history subject. Only (44%) of the students in special schools and one (20%) of the five students in integrated schools indicated that their teachers used maps, charts and brailled textbooks during the history lessons. Four (44%) of the 9 students in special schools and none in integrated schools indicated that radios were in use. No student had indicated that radio cassettes and tapes were in use during history lessons in both types of schools. On the other hand, five (56%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools claimed that maps, charts, radios, radio cassettes and brailled history textbooks were not used by their teachers of history during the history lessons. Instead, teachers employed the explanation method while students played the role of listeners (see Table 20).

TABLE 20

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON TEACHING AIDS USED BY THEIR TEACHERS OF HISTORY

* ALTERNATIVES	STUDENT RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTEGRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTEGRATED SCHOOLS
a	4	1	44	20	0.66	0.16	0.33	0.18
b	4	1	44	20	0.66	0.16	0.33	0.18
c	4	0	44	-	0.66	-	0.33	-
d	0	0	0	0	0	0	0	0
e	4	1	44	20	0.66	0.16	0.33	0.18
f	5	4	56	80	0.83	0.62	0.42	0.75
	x = 21	x = 7						

NOTE: For details about table 20, see footnote below table 16.

* For details to alternatives, see Appendix D part II B

b) Assistance from the teachers of history

In question 5a (see Appendix D part II B) students were asked to indicate whether or not they got enough help from their teachers of history. Seven (78%) of the 9 students in special schools and three (60%) of the 5 students in integrated schools indicated that they were given enough help by their teachers of history. Two (22%) of the 9 students in special schools and two (40%) of the 5 students in integrated schools argued that they did not receive enough help from their teachers of history (see table 21).

TABLE 21

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS, AND STANDARD DEVIATIONS ON WHETHER OR NOT THEY WERE HELPED ADEQUATELY BY THEIR TEACHERS OF HISTORY

*ALTER-NATIVES	STUDENTS RESPONSE		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTE-GRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
AGREE	7	3	78	60	3.5	1.5	2.74	0.42
DISAGREE	2	2	22	40	1.0	1.0	0.78	0.28
	x = 9	x = 5						

NOTE: For details about table 21, see footnote under table 16.

* For details to alternatives, see Appendix D part II B.

In question 5b (see Appendix D part II B) students who responded postitively to question B 5a were asked to state the kind of help they received from their teachers of history. Seven (78%) of the 9 students in special schools and three (60%) of the 5 students in integrated schools argued that their teachers clarified difficult areas in the lessons as it progressed. Four (44%) of the 9 students in special schools and one (20%) of the 5 students in integrated schools claimed that their teachers of history offered remedials after lessons were over, and taught with the help of teaching aids most of the time. One (20%) of the 5 students in integrated schools stated that the history teacher assisted in his mobility in and outside the class. Nobody indicated this in special schools. Two (22%) of the 9 students in special schools argued that the above views were not applicable since they never received enough help from their teachers of history (see table 22).

TABLE 22

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON KIND OF HELP GIVEN BY HISTORY TEACHERS

*ALTER-NATIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTE-GRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
i	7	3	78	60	1.4	0.6	1.07	0.335
ii	4	1	44	20	0.8	0.2	0.61	0.112
iii	0	1	-	20	-	0.2	-	0.112
iv	4	1	44	20	0.8	0.2	0.61	0.112
NOT APPLI-CABLE	2	2	22	40	0.4	0.4	0.13	0.223
	x = 17	x = 8						

NOTE: For details about table 22, see footnote under table 16

* For details to alternatives, see Appendix D part II B.

c) Assistance from the specialist teachers

In question 6a (see Appendix D part II B) students were requested to indicate whether or not they received enough help from their specialist teachers. All the nine (100%) sample students in special schools and all the five (100%9 sample students in integrated schools agreed that enough help was given by their specialist (or resource) teachers.

Question 6b (see Appendix D part II B) asked students to indicate the nature of assistance their specialist teachers rendered. All of them in the two types of schools indicated that their resource teachers offered remedials after some difficult lesson, and gave instructions in Activities for Daily Living (ADL). Further, three (60%) of the 5 students in integrated schools contended that their resource teachers assisted them in their mobility in and outside the class, while no student in special schools mentioned this point (see table 23).

TABLE 23

STUDENTS' RESPONSE FREQUENCIES, PERCENTGES, MEANS AND STANDARD DEVIATIONS ON NATURE OF ASSISTANCE GIVEN TO STUDENTS BY RESOURCE TEACHERS

* ALTRNATIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTEGRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTEGRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOL
i	9	5	100	100	3.00	1.66	2.59	0.44
ii	9	5	100	100	3.00	1.66	2.59	0.44
iii	0	3	-	60	-	1.01	-	0.28
	x = 18	x = 13						

NOTE: For details about table 23, see footnote below table 16.
* For details to alternatives, see Appendix D part II B.

d) Problems with the history subject

Question 7 (see Appendix D part II B) asked students to identify the problems they faced in their learning of the history subject. All the nine (100%) sample students in special schools and all the five (100%) sample students in integrated schools claimed that their schools lacked brailled history textbooks. Five (56%) of the 9 students in special schools and four (80%) of the 5 students in integrated schools stated that there was lack of adequate writing equipment like braille typewriters, and braille paper. Lastly, two (22%) of the 9 students in special schools and one (20%) of the 5 students in integrated schools felt that there was inadequate attention from their teachers of history (see table 24).

TABLE 24

STUDENTS' RESPONSE FREQUENCIES, PERCENTAGES, MEANS AND STANDARD DEVIATIONS ON PROBLEMS WITH THE HISTORY SUBJECT

*ALTER-NATIVES	STUDENTS RESPONSE FREQUENCIES		PERCENTAGES		MEANS		STANDARD DEVIATIONS	
	SPECIAL SCHOOLS N = 9	INTE-GRATED SCHOOLS N = 5	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS	SPECIAL SCHOOLS	INTE-GRATED SCHOOLS
a	9	5	100	100	3.0	1.65	2.0	1.04
b	5	4	56	80	1.6	1.32	1.1	0.83
c	2	1	22	20	0.7	0.33	0.4	0.21
	x = 16	x = 10						

NOTE: For details about table 24, see footnote below table 16.

* For details to alternatives, see Appendix D part II B.

CHAPTER FIVE

DISCUSION OF RESULTS

This chapter discusses the results presented in the previous chapter, and covers the following aspects:- blind grade 9 students scores in the history tests, teacher attitudes in the two types of schools, teacher quality and their views about special schools and integrated schools, student background and their views about the running of their respective type of schools.

Student scores in the history tests

Blind grade 9 students in special schools and integrated schools appear to have performed poorly in history, as shown by the scores they obtained in the three tests (see tables 6a, 6b). Some differences in the scores obtained in the three tests between the two groups, were observed in terms of mean and standard deviation. These differences were also reflected in the average mean and standard deviation (see table 6c). However, the t-test indicates that there was no significant difference in academic performance in history between blind grade 9 students in special schools and their counterparts in integrated schools. This was a result of the computed value (-0.4) having fallen outside the critical region (-2.776). This means that the null hypothesis can not be rejected. The implication is that not only were blind grade 9 students in schools with poor conditions such as lack of adequate teaching materials and equipment and specialist teachers subjected to poor performance in history but their counterparts in schools which were alleged to have good conditions were also in a similar situation.

One contributing factors to this state of affairs in the two types of schools appeared to have been lack of cognitive skills among the blind grade 9 students. Students faired poorly in map interpretation, time chart, essays, comprehension, and even recall aspects of the tests. This might in turn be attributed to the nature of presentation of lessons, which may have lacked exercise and introduction to the skills mentioned above. Garvey and Krug (1977) confirmed that teaching was not an exercise which a teacher performed in front of a room full of pupils, but was an ancillary activity by which one person helped others to learn. They thus referred to intellectual skills such as knowledge, comprehension, application, analysis, synthesis and application acquired through activities like document study, textbook study, note-making, map study, simulation and drama.

Failure to reject the null hypothesis further implied that it was generalising to believe that special schools had all the necessary teaching equipment, teaching materials and better qualified teachers which facilitate attainment of higher scores. Similarly, it may be argued that if good learning conditions did exist in special schools, they were not put to correct use since based on the average scores only 33% of the students passed the history tests. Of the 33% of the students who passed the tests in special schools, 22% were repeaters. It is therefore assumed that student background may have affected performance positively since two out of the three students who passed the tests on average were repeaters. A representation of 20% of the students in integrated schools, believed to be subjected to poor learning conditions, passed the history tests.

On the other hand, poor performance among blind grade 9 students in integrated schools was expected since it was alleged that these schools did not have adequate teaching equipment, teaching materials and specialist teachers.

Lastly, the students' gender seemed to have no effect on scores attained in the history tests in special schools because both male and female students either failed or passed some or all of the tests. That is, some among the boys and girls passed some or all of the tests whilst others failed some or all of the tests. Similarly, the only female student in integrated schools found herself among male students who failed all of the tests (see tables 6a, 6b).

Teacher attitudes

The teacher attitude scores obtained in special schools and integrated schools are shown in tables 8a and 8b. These give a breakdown of scores per item and the total score for the twelve item for each teacher. Teachers in integrated schools showed a slightly higher mean of the total attitude score than their counterparts in special schools. On the contrary, teachers in special schools had a slightly higher standard deviation than teachers in integrated schools (see table 8c). The scores obtained showed that all the teachers in special schools and integrated schools seemed to have positive attitudes towards their students, since they all scored well above the mid-point of the total score for the twelve items.

Though there were minor differences in the mean and standard deviation, the t-test results showed that there was no significant

difference in attitudes between teachers in special schools and teachers in integrated schools. The computed value (1.019) fell outside the critical region (2.776) at 0.05 alpha level, two tail (see table 8c). Thus the null hypothesis can not be rejected. In view of the above findings, the contention that teachers in segregated special schools had more positive attitudes towards blind students than teachers in integrated schools seemed not applicable in this study. Instead, all teachers seemed to have positive attitudes towards blind grade 9 students in their respective type of schools. All teachers, specialist and non-specialist, in integrated schools had high attitudes scores well above the mid-point. This was a clear indication that negative stereotypes towards blind students may not have existed among non-specialist teachers in integrated schools, contrary to what was earlier assumed.

These findings, therefore, suggest that teacher attitudes in both types of schools seemed not to have contributed towards poor performance in history among blind grade 9 students. The findings seem to refute the earlier beliefs about teacher attitude towards blind students such as the belief that special schools provide a better learning environment leading to good results among blind students than integrated schools; and that non-specialist teachers generally seem to lose their tempers easily when dealing with blind students in their respective schools (see Appendix D part IC).

Teacher quality

Special schools, which are in reality primary schools, had by far more certificate holders than was the case in integrated schools. These

received their training in Primary School Teachers Training Colleges spread throughout the country. They attained the status of specialist teachers after receiving a year's specialist training at the Lusaka College for Teachers of the Handicapped. The certificate holder in one of the integrated schools was in actual fact a specialist teacher assigned to man the Unit for the blind in that school. There was equal representation of diploma holders in the two types of schools, though these differed in terms of percentage. These received their training in the Secondary School Teachers Training Colleges. Fifty percent of the teachers for blind grade 9 students studied in integrated schools were degree holders while none existed in special schools. Teachers in the two types of schools had good teaching experience since the majority of them served for at least six years. An even number of teachers taught history in special schools and integrated schools. Though integrated schools seemed to have better qualified teachers, they appeared not to have an advantage over special schools. This was due to the fact that the academic performance of blind grade 9 students in history in the two types of schools appeared not to be different (see tables 6a and 6b).

The general expectation was that certificate, diploma or degree holders with specialist training and good teaching experience would lead to the attainment of higher scores in the history tests among the blind grade 9 students in both types of schools. Although teacher quality appeared not to have any effect on student performance, a number of implications could be made from student poor performance. Some of these implications are that teachers' morale could have been below expectation such that their teaching was affected; specialist teachers in special

schools and integrated schools were probably not trained history teachers; history teachers in integrated schools did not liaise with specialist teachers for assistance in the preparation of teaching aids for their lessons; both history teachers and specialist teachers did not have enough teaching materials and teaching equipment which make effective learning possible; teachers were not keen at using teaching materials and equipment if they were available; teachers in both types of schools lacked supervision from the inspectorate to enable them present their lessons well class; and subject teachers (non-specialist) probably felt that they were neither trained nor paid for handling blind students thus were reluctant in executing their duties satisfactorily.

Teachers' views on

a) Teaching problems in history

Thirty-eight percent of the teachers in special schools and fifty percent of the teachers in integrated schools stated that their schools lacked teaching equipment such as thermform, braille typewriter, ordinary typewriters, writing frame and stylus and braille paper; as well as non-funding of school activities such as the buying of brailled textbooks. Minor differences were observed in the percentages, which implies that there was a similarity in the above views. Eighty-eight percent of the teachers in special schools and sixty-seven percent of the teachers in integrated schools were of the opinion that non-availability of teaching aids such as embossed maps, brailled charts, radios, radio cassettes posed a big problem in the teaching of history. Though there was a difference in the percentages, non availability of teaching

aids was overwhelmingly voiced by teachers in the two types of schools. General observation also showed that special schools and integrated schools lacked teaching equipment, brailled textbooks and teaching aids. Clearly these factors are likely to have a direct bearing on the academic performance of blind grade 9 students in history in both types of schools. Mbozi confirmed the above observation by referring to the works done in less developed countries by Murphy, Heynman and Kabwe who concluded that the socio-economic status of a student had little effect on the student's performance. Instead, variables such as teacher quality, textbooks and other equipment had a positive effect on student performance (Mbozi 1989:28). It would be interesting to find out at a later stage whether these findings apply to developed countries as well.

b) Instruments for students

From the results there was an indication that blind grade 9 students in the two types of schools used the writing frame and stylus and braille paper most of the time. Though some differences existed in both types of schools in terms of percentages, they were not significant. The frame and stylus were expected to be readily available to students or any literate blind person because they could be carried easily from one place to another. These play a vital role in a blind person's daily life. On the contrary, only thirty-eight percent of the teachers in special schools and fifty percent of the teachers in integrated schools indicated that the braille typewriter was in use. Braille typewriters were not enough to

circulate among all students in the sample schools, such that some of the students in these schools did not know how to use them. Blind students write braille faster using the braille typewriter than using the frame and stylus. Of the few braille typewriters available, especially in special schools, most of them were old while some needed servicing since they were out of order. Lastly, although braille typewriters are not easily portable as writing instruments, they are essential to blind students.

c) Factors which may promote high scores in history

Most teachers in both special schools and integrated schools (that is, fifty percent and sixty-seven percent respectively) held the views that availability of brailled textbooks, and the use of all possible teaching aids during lessons helped greatly in the attainment of high scores in history. Twenty-five percent of the teachers in special schools and fifty percent of the teachers in integrated schools argued that the offering of remedials after difficult lessons would contribute positively towards the attainment of good marks in history. Further, thirty-eight percent of the teachers in special schools and sixty-seven percent of the teachers in integrated schools felt that the availability of trained staff in special education would lead to attainment of high scores in history. Although teachers in integrated schools outnumbered their counterparts in special schools, the general trend was that these views were representative in both types of schools. On the other hand, fifty percent of the teachers in special schools and seventeen percent of the teachers in integrated schools had not agreed with

any of the above views. More teachers in special schools than the teachers in integrated schools disagreed with the above views may be due to the fact that the majority of them are not history specialists.

d) Role of the Zambian government

Overwhelming support was given by almost all the teachers studied in special schools and integrated schools, to views related to what the role of the Zambian government in the education for the blind should be, as presented below:- it should promote in-service training among the serving staff so as to facilitate good performance in class among them; it should be able to finance the buying of teaching equipment such as thermform, Perkins, frame and stylus, radios, radio cassettes, ordinary typewriters, as well as teaching materials such as brailled textbooks, maps, charts, and braille paper - which would facilitate good learning and teaching in the two types of schools; it should provide enough incentives to teachers of the blind in terms of allowances, housing, promotion, and so on; it should be able to maintain a viable inspectorate for blind students and their teachers in terms of tours, workshops, seminars, recommendation of teachers for further training, and so on.

One teacher in one of the integrated schools suggested that the government should ensure that teachers for the blind have access to scholarships abroad (both overseas and regional) in special education, rather than confining them to the Special Education Inspectorate personnel only at the then Ministry of General Education, Youth and Sport (now called Ministry of Education) headquarters. It is the class teachers

who interact on a daily basis with the blind students who should have access to specialised training, and not the administrators.

Some of the observations made above are in line with the recommendations made in the Education Reforms (1977:26) which stated that the government should increase the number of institutions for handicapped teachers training, and expand facilities in capacity and range of fields of handcaps for which training opportunities should be offered.

It is, therefore, up to the Zambian government to address itself to these burning issues aimed at improving the education for the blind who, like the sighted, should contribute positively towards the development of this nation.

Student background

All but two of the totally blind grade 9 students in special schools and integrated schools were non-repeaters (see table 14). In addition, the age group for the majority of these students fell between sixteen and eighteen years (see table 15). Two out of the three students aged between sixteen and eighteen years who on average passed the history tests in special schools were repeaters. This meant that student background with regards repeating may have enhanced good performance in the tests. However, two of the four students who on average passed the tests, one each in the special schools and integrated schools, were non repeaters. Thus, it is not always the case that repeaters would be the only ones who may perform well in the history tests. On the contrary, it was revealed that the majority of the sample students

liked their schools, irrespective of the type (that is, special school or integrated school) due to the following reasons:-
good subjects offered; helpful teachers and non-teaching staff; as well as the type of buildings found in their respective schools. In addition, more blind grade 9 students in special schools than their counterparts in integrated schools referred to other factors such as clubs (that is, debate, music, drama, mathematics and Chongololo), sports, and schools being found in home area. There was disparity in the above area probably due to the fact that clubs and sports may not be encouraged among blind students in integrated schools since these mainly deal with the sighted in such matters. Further, the majority of the sample students in the two types of schools felt that the history subject was simple and one among their favourite subjects (see table 18). The question of the subject being unpopular should not therefore be expected to have an effect on student performance in the tests.

Students' views on

a) Teaching aids in use

Only forty-four percent of blind grade 9 students in special schools and twenty percent of blind grade 9 students in integrated schools indicated that maps, charts, and brailled textbooks were used by their teachers during history lessons. Similarly, less than fifty percent of blind students in special schools stated that radios were in use in their schools during the history lessons, while nobody indicated that the radio was in use in integrated schools. No student in both special schools and integrated schools mentioned the radio cassettes and tapes as being in use during history lessons.

Fifty-six percent of blind grade 9 students in special schools and eighty percent of blind grade 9 students in integrated schools argued that teachers employed the explanation method while students played the role of listeners. That is, embossed maps, brailled charts, radios, radio cassettes and brailled history textbooks were not used during history lessons. If this was a justified contention, it is certainly likely to have some negative bearing on the blind grade 9 students performance in history in the tests given. The above data shows that though some teaching aids may have been used in some schools, teachers of history in both types of schools generally seemed to present lessons using the recitation method-where the teachers talk with no reference to teaching aids.

b) Assistance from the teachers of history

A seventy-eight percent majority of blind grade 9 students in special schools and a sixty percent majority in integrated schools were convinced that they received enough help from their teachers of history during history lessons. On the contrary twenty-two percent of blind grade 9 students in special schools and forty percent of blind grade 9 students in integrated schools held the opposite view. The majority of the students who responded positively stated that their teachers of history explained difficult areas in the lesson as it progressed in both types of schools. Forty-four percent of blind grade 9 students in special schools and twenty percent of blind grade 9 students in integrated schools claimed that their teachers of history offered remedials after lessons, and taught with the help of teaching aids most of the time.

One student in one of the integrated schools felt that his teacher of history assisted him in his up mobility in and outside the classroom while nobody brought this point in special schools. However twenty-two percent of blind grade 9 students in special schools and forty percent of those in integrated schools did mention that they never received adequate assistance from their teachers of history (see table 22).

From the above, one may conclude that though assistance was rendered to blind grade 9 students, that assistance was not readily available nor adequate from some teachers of history. This may have been due to the fact that most history teachers had not received specialist training with the view to teaching among the blind. Blind students, to the majority of the teachers of history, were meant to receive their education in special schools. Probably, the teachers in question were not psychologically prepared to handle blind students, such that little or no time was spared to them during lessons. One of the strongest principles of teaching the blind is individualisation under which some minutes in every lesson must be devoted to an individual blind student. That is, for every minute spent on a needy sighted student the blind student must be allocated about four minutes in a given lesson in integrated schools. This is one factor which contributes to the smallness of classes in schools only attended by blind students. The largest class could have a maximum of about 15 blind students. In such schools, time given to the individual student in a lesson may vary according to whether the student is bright, average or slow to instruct.

The reality of the moment in Zambia is such that there is over-enrollment in most ordinary secondary schools which makes it difficult for the subject teacher to even attend to the needy sighted students individually during the lesson. As a result, it is even more difficult for that teacher to attend to a blind student individually during the lesson. However, where a resource teacher has established awareness among the non-specialist subject teachers about the importance of assisting the blind in their learning, a subject teacher must be in a position to give remedials to blind students during his spare time though he does not qualify for an allowance for the extra work done. Specialisation in secondary schools makes it difficult for resource teachers to assist students in all the subjects. To improve on this problem, the resource teacher must attend some of the lessons together with the students in the subjects he is not familiar with. Besides, he could arrange with the subject teacher for a special teaching session.

c) Assistance from the specialist teachers

All the sample students in special schools and integrated schools strongly asserted that their resource teachers provided adequate help in terms of offering remedials after some difficult lesson, and giving of instructions in Activities for Daily Living (A.D.L.). According to Sakala (1988:7-10), A.D.L. deals with the development of a child's behaviour, communication and social competence skills which help the child to interact with others. Seeing to the visually impaired means trying to hear, touch, feel, taste, and smell if he/she has to get a concept of anything. He further clarifies that the aim of A.D.L. is to enable a child to live

normally and independently, taking care of himself and contributing to social development. The visually impaired achieve the above through agents like parents, relatives, peers, schools, and the whole society.

A good percentage (60%) of students in integrated schools, and none in special schools argued that their specialist teachers helped them in their mobility in and outside the class. Sakala (1988:15) defined mobility as one's ability to move from one fixed point to another point of reference, bearing in mind posture anomalies, mobility techniques, sighted guide techniques, the cane, and so on. Students in special schools did not mention this as an issue because they had stayed in their schools since grade one such that mobility training was given to them during their early years of stay in such schools. On the other hand, blind grade 9 students left their primary schools to go to integrated schools after qualifying for secondary education, such that there was need to orient them to the new environment in terms of mobility.

Blind students generally rated their specialist teachers highly in terms of their concern for them in the two types of schools. This may be a result of the nature of training received by specialist teachers where they are expected to be kind, tolerant and hardworking. Where schools are not provided with teaching aids by the government teachers are expected to make them during their spare time, outside working hours. That is, teachers are expected to be resourceful through improvisation. Another strong principle of teaching the blind is that no lesson should be taught without an aid.

The Ministry of Education and Culture (1981), in a memorandum entitled "Job Description for Resource Teachers 'Blind Units'" outlined duties of resource teachers in integrated secondary schools. It stated that a resource teacher should establish cooperation with all the staff and between the blind students, staff and sighted students, in relation to fields where blind students required independence and areas where they need assistance; and should teach blind students in areas such as:-

i) preparation of new concepts, diagrams and graphs likely to be introduced in ordinary classes; ii) consolidation of the learning in ordinary classes, clarification of concepts, checking of notes, dictation of notes and headings of assignments, developing awareness of mistakes in written work marked by other teachers; iii) teach orientation and mobility within and outside the school surrounding; iv) teach-writing (touch method); v) supervise Activities for Daily Living (ADL); vi) assist blind pupils in ordinary classes in terms of exercises in practical work, when it is necessary and upon agreement with the teacher concerned; vii) make special teaching aids such as models, relief illustrations, transcriptions and tape recorded texts; viii) advise the staff in making of aids when they offer their assistance; and ix) advise the Ministry of Education concerning special aids needed and despatch records and reports when requested to do so.

d) Problems with the history subject

All the students in the sample schools made reference to lack of brailled history textbooks as one of the major problems in their

learning of the history subject. Further, a substantial number of students, especially in integrated schools, felt that lack of adequate writing equipment like braille typewriters, braille paper, and so on - also posed a problem. There was some disparity in this view because though special schools did not have adequate braille typewriters, their condition was not as chronic as it were in integrated schools. Lastly, twenty-two percent of the sample students in special schools and twenty percent of the sample students in integrated schools were of the conviction that their history teachers did not give them enough attention during history lessons (see table 24).

In conclusion, it is worth mentioning that from the findings the type of school, teacher attitudes, teacher quality and student sex, seemed not to have an effect on the academic performance in history between blind grade 9 students in special schools and their counterparts in integrated schools. These findings may be contrary with what others have done, e.g. Mbozi (1989) quoted the works done by Kabwe, Heynman and Murphy on teacher attitude and teacher quality, due to different factors of which the discussion is outside my field of study. On the contrary, data collected indicated that availability and use of teaching equipment and teaching materials as well as student background seemed to have an effect on the academic performance in history among blind grade 9 students who generally failed the history tests in the two types of schools. Though assistance was given to blind grade 9 students by their teachers of history, that assistance seemed not to be adequate from some of them. It appears from the results that most specialist teachers in

both types of schools give their students adequate assistance. To improve the quality of education the general feeling was that the government should provide teaching materials and provide incentives to teachers.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary, conclusions and recommendations of salient points emanating from the study's findings and ends with recommendations.

SUMMARY

Though segregated schools were said to have better learning and teaching conditions than integrated schools there seemed to be no significant difference in the academic performance in the history subject between blind grade 9 students in the selected special schools and blind grade 9 students in the selected integrated schools. The subjects in the two types of schools attained lower scores in the three history tests in which they were tested. This situation where over 90% of the sample students failed the tests in the two types of schools may be attributed to the way teaching was done in class by the teachers of history. Teaching modes like document study, textbook study, note-making, map study, simulation and drama seemed not to have been employed.

The study revealed that teachers in both segregated special schools and integrated schools have positive attitudes towards their blind students. In addition, all the teachers studied in integrated schools, specialist and non-specialist, seemed to display the same positive attitudes towards blind grade 9 students. In view of this, teacher attitudes seem not to have had effect on blind grade 9 students performance in history since all teachers in the sample schools seemed to have positive attitudes towards their students. This finding may not be consistent with what others have established about teacher attitude. The reason for this difference may be due to other factors beyond the discussion by this study.

Teachers in integrated schools seemed to be better qualified than teachers in special schools. However, the majority of the teachers in the two types of schools appeared to have good teaching experience. Though there was some difference in teacher qualification in the two types of schools, it did not seem to have a direct bearing on blind grade 9 students performance in history. This was because there seemed to be no significant difference in the scores attained by the subjects in both types of schools. Teacher quality therefore seemed not to have had an effect on blind grade 9 students poor performance in special schools and integrated schools. The implication is that training of teachers in itself is not enough if those teachers do not implement effectively what they were taught. This is with regards to the provision and use of teaching aids during history lessons.

Student background seemed to have some effect on the scores attained because two out of the three students who passed the tests in special schools were repeaters. However, since two of the four students who on average passed the tests in both types of schools were non repeaters, it is not always true that repeaters would be the only ones who may pass the history tests. Besides, at least sixty percent of the students, repeaters inclusive, in the two types of schools found themselves in the same age range (16-18), and students generally liked their respective types of schools as well as the history subject.

Teachers in both special schools and integrated schools seemed to hold the following views about the running of their schools.
In the case of teaching junior history, they outlined problems such as

lack of teaching equipment, teaching materials and visual aids which appeared to have a negative effect on the academic performance of blind grade 9 students. Though not adequately supplied, the frame and stylus were in wider use among students than the Perkins. Students were disadvantaged because they write faster with the Perkins (braille typewriter) than with the frame and stylus. To compound the problem, some students in some of the sample schools did not know how to use the Perkins because these were not readily available for every student. There could be attainment of high scores in history if brailled history textbooks, visual aids such as brailled charts, and embossed maps were made available and used during history lessons. Remedials which consolidate a student's understanding of what was discussed in class, must be offered after every difficult lesson. Teachers handling students in special education must be given appropriate training which may lead to satisfactory teaching and as a result good student performance. They summed up their views by stating that the Zambian government could promote good performance among blind students by ensuring that in-service training was conducted among the serving staff at home and abroad, teaching equipment and teaching materials were purchased, enough incentives were provided to teachers for the blind (both specialist and non-specialist), and a more effective inspectorate in special education was maintained.

Similarly, student views in segregated special schools and integrated schools confirmed that teaching aids such as maps, charts, textbooks, radios, radio cassettes, and so on, were rarely used during history lessons. This handicap contributed positively towards the poor performance of the subjects in the history tests. History lessons

appeared to have been dominated by the teacher recitation approach to teaching, which is strongly discouraged in the history teaching methods. Lastly, students strongly advanced the view that specialist teachers in both types of schools appeared sufficiently concerned with their learning problems both in and outside the classroom. However, although students felt that they generally got adequate assistance from their history teachers, a few of them expressed disappointment with some teachers.

CONCLUSIONS

An outline of important features derived from the study's findings is made as follows:- Type of school seemed to have no effect on the academic performance in history among blind grade 9 students in integrated schools and blind grade 9 students in special schools. There was no significant difference in the scores attained between blind grade 9 students in integrated schools and blind grade 9 students in special schools. Ninety-three percent of the students in both types of schools had their average scores falling below forty percent - the pass mark.

Teacher attitudes appeared to have no effect on blind grade 9 students performance in the history tests in both types of school because there was no significant difference in the teacher attitudes scores which meant that teachers (both specialist and non-specialist) were positively organised towards their students. All teachers had scored well above the mid-point (30) on the Likert type of scale.

Student background seemed to have some impact on student performance because the two repeaters, belonging to the most common age-range and interested in the history subject, passed the tests.

Both teachers and students in the two types of schools acknowledged that teaching materials and teaching equipment were either not used during history lessons or were not adequately available in schools, which may have affected student performance since the majority had failed the history tests.

Blind grade 9 students in both special schools and integrated schools seemed to generally agree that though they received help from their teachers of history, it was not adequate from some of them. On the contrary, students indicated in large numbers that specialist teachers provided enough help to them.

Teacher quality such as type of certificate held, teaching experience and specialist training received seemed not to facilitate attainment of high scores in the history tests because over ninety percent of the sample students failed in both types of schools.

Students' gender in both types of schools appeared to have no impact on the performance of blind grade 9 boys and blind grade 9 girls in the history tests because both sexes had either passed or failed some or all of the tests.

Blind grade 9 students in the two types of schools seemed to lack cognitive skills such as knowledge, comprehension, application, analysis and synthesis, as indicated by their poor performance in the various types of exercises in the history tests.

Teachers in both types of schools felt that the Zambian government should be able to provide teaching materials and teaching equipment to Units and special schools, incentives to teachers and maintain an active special education inspectorate.

RECOMMENDATIONS

In view of the above findings of the study the following recommendations are made:-

1. There is an urgent need for the provision of adequate teaching equipment to all schools for the blind (Units and special schools) such as thermform - for reproducing notes, tests, maps, and so on, for blind students; ordinary typewriters - to enable blind students learn to communicate with the sighted; braille typewriters; frame and stylus; radio and radio cassettes.

2. Provision of teaching materials such as brailled history textbooks, charts, and embossed maps in the Units and special schools is also needed. The government or its agents must fund the Braille Presses at the Curriculum Development Center (C.D.C.) and the National Educational Company of Zambia (NECZAM) in order for them to produce the above items.

3. The already serving diploma and degree holders with specialisation in history in special schools and integrated schools need to ensure that their teaching of history among blind grade 9 students is combined with teaching aids rather than without them. Non-specialist teachers should ensure that they liaise with specialist teachers with the view to facilitating brailled maps, charts, and documents which are vital for their presentation of lessons.

4. The Lusaka College for Teachers of the Handicapped, especially the Visually Impaired Department, should ensure that thorough training is given to the specialist teacher candidates. A complaint was, for instance, registered from all the transcribers of the brailled history tests answer sheets that brailling by blind grade 9 students was done very badly. It is therefore important to introduce training which should be more practical oriented. Extension of the duration of the course from one year to two years could facilitate the giving of more time to teaching practice. Lecturers in the Visually Impaired department should have access to specialist training outside the country.

5. The government should maintain a mobile inspectorate in special education as opposed to that which carries out inspection of the concerned schools through correspondence. The Special Education Inspectorate could make frequent tours and other activities for the benefit of students and teachers in schools for the blind.

6. Specialist teachers must have attractive incentives such as good accommodation, various allowances, promotion, and in-service training at home and abroad (both regionally and overseas). Scholarships in Special Education need not only be confined to administrators at the Ministry of Education.

7. The Inspector of History should liaise with the Special Education Inspectorate (Blind) so that joint workshops could be conducted for teachers of history for the blind where demonstrations on the correct presentation of Lessons and other issues could be made and discussed respectively.

8. The present junior secondary school history syllabus should be maintained. However, provision of teaching materials and equipment, and in-service training to the teachers of history, which enhances its implementation among the blind, must be made.

9. Special Education should be one of the compulsory courses offered at the University of Zambia in the School of Education, Nkrumah Teachers College and Copperbelt Secondary School Teachers College. Besides introducing student teachers to the four handcaps (that is, the blind, the deaf, the mentally retarded, and the physically handicapped) they could be prepared psychologically to handle handicapped students wholeheartedly in secondary schools after their training.

10. Subject teachers (non-specialist) handling blind students in ordinary secondary schools should be given an allowance for handling such students, just as resource teachers qualify for it.

11. From the findings, though based on a small study, integration of blind students in ordinary schools should continue due to the following reasons:-

    i) There was no significant difference in the history test scores between blind grade 9 students in special schools and those in integrated schools;

    ii) It is one major way of providing secondary, college and university education to blind persons;

    iii) Besides saving money by not building separate institutions, the government fulfills the normalisation principle where

both the blind and the sighted share all facilities and participate fairly in national development.

12. More comprehensive research should be carried out in special education among the blind in areas such as:-

a) The effect of specialisation in secondary schools on resource teachers in their provision of remedials to blind students;

b) Blind students academic performance in senior history;

c) Blind students academic performance in other subjects besides history;

d) Policy implementation and its effect on the education for the handicapped persons;

e) A comparative investigation in the academic performance between the sighted and blind students;

f) A comparative investigation in the academic performance between the partially sighted and the totally blind.

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APPENDIX A TEST ONE Marks: 100

NAME: _____ GRADE: _____ TIME: 2 HOURS 48 MINUTES

GENERAL INSTRUCTIONS

Given below is a grade 9 term 1 test based on the work covered in grade 8. Answer all sections. You are reminded to read the instructions carefully given under each section before attempting the questions. Please do not forget to complete all your particulars.

SECTION A (14 Marks)

Below are fifteen incomplete statements. Four choices are given for the completion of each statement. Choose the best answer to complete each statement, and circle the letter of the answer of your choice. The first one has been done for you.

1. According to pre-historians the first true man was:

   A. Proconsul

   B. Zinjathropus

   (C.) Homo Habilis

   D. Australopithecus

2. The Stone Age people used tools and weapons made of:

   A. Wood and Stone

   B. Wood and Iron

   C. Iron and Stone

   D. Stone and Copper

3. The site which does not belong to the Stone Age is:

   A. Gwisho Hot Spring

   B. Nsalu Cave

   C. Victoria Falls

   D. Isamu Pati

4. The site at which the skull of Broken Hill man was found is:

   A. Kabwe

   B. Livingstone

   C. Nachikufu

   D. Ing'ombe Ilede

5. The man-creature who was nicknamed as Nutcrackerman was:

   A. Kenyapithecus

   B. Homo Habilis

   C. Zinjanthropus

   D. Australopithecus

6. Life began

   A. in the air

   B. on land

   C. in the sea

   D. in heaven

7. The Early Farmers from the north belonged to:

   A. Middle Stone Age

   B. Early Iron Age

   C. Early Stone Age

   D. Late Stone Age.

8. One thing which cannot be established about pre-historic people is:

   A. Language

   B. Material Culture

   C. Food

   D. Occupation

9. The Idea of chieftainship was brought to most areas of Zambia by:

   A. Ngoni immigrants from South Africa

   B. Immigrants from Zaire

   C. Arab and Swahili from the East Coast

   D. Early Iron Age people.

10. The two important Portuguese settlements on the Zambezi river were:

   A. Sofala and Kilwa

   B. Luanda and Quelimane

   C. Sena and Tete

   D. Sofala and Zumbo.

11. The Lozi are believed to have been led into Zambia by:

   A. Mboo

   B. Mbuyu Wamwambwa

   C. Ngombala

   D. Nyambe

12. One tribe in Zambia which had no centralised government was:

   A. Bemba

   B. Lunda

   C. Lozi

   D. Ila

13. One reason why we learn about the past is that:

   A. we want to do so

   B. it is a government programme to do so.

   C. we are forced by our ancestors

   D. history is a very popular subject.

14. A centralised society is:

A. a society found in the center of the country

B. a society clearly defined with central authority

C. a society governed by a group of elders

D. a society which only meets in opposition to an enemy

15. The first Iron Age farmers mainly settled in:

A. Luapula Province

B. Eastern Province

C. Western Province

D. Southern Province

SECTION B (6 Marks)

Rearrange the following events according to the time when they happened. The earliest event must be presented <u>first</u> while the latest event <u>last</u>

- The earth was cooling slowly
- Life began in the sea
- Creatures spread to the Land
- The earth began as a ball of fire
- Plants spread to the Land
- Land and sea appeared.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

SECTION C (10 Marks)

Answer all the following questions. Write your answers in the spaces provided after each question. Use one word answer or a short phrase.

1. Write down the name of the famous archaeological site in Tanzania where Dr. Leakey found the remains of Nutcrackerman.

_____

2. What name is given to the canoe used by the Litunga during the Kuomboka Ceremony?

_____

3. In which river valley in Africa did farming first begin?

_____

4. What name is given to the stories told from one generation to the next? _____

5. What theory do christians use in explaining how the earth began?

_____

6. What name was given to creatures which live both on Land and in the Sea? _____

7. What is the scientific name for modern man?

_____

8. Give an example of one giant reptile which is now extinct.

_____

9. Which Stone Age men introduced the bow and arrow? _____

10. What is the other name given to the Early Stone Age men?

_____

SECTION D (10 Marks)

Read the passage below and answer the question at the end.

In history we can learn various developments man made in his effort to satify his needs.

Firstly man was a wandering animal in search of food. He was a hunter and food gatherer. His food supply depended on nature as such his food was not always certain.

Later on man started to select what to eat and gradually began to change his feeding habits. Instead of gathering and eating on the spot, man now gathered and selected what to eat out of his gathering. Not only selecting, man also started to think about the future. Consequently out of what he selected he stored some for the future. Thus, selection and storage were first important developments man made.

As he selected, man started knowing seeds which he could plant. Through trial and error, man started a very important economic activity called farming. He cleared land and sowed the seeds that he chose out of his gathering.

Clearing of land for farming was made easier by yet another important development. This was iron mining and smelting. Out of iron that man smelted, he made tools like hoes and axes that he used in farming. Mining other minerals followed and today products of metals are too numerous to mention.

Further development that went hand in hand with farming, is domestication of animals. Out of many animals man started to tame animals like cattle, sheep and goats just to mention a few. He ate meat and milk from his animals. More important still man used, as he does, his animals as a source of power to till his land.

Today man made numerous new developments on the discoveries that he has been making in history.

Now answer this question:

List five developments done by man.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

SECTION E (15 Marks)

Study the map carefully and then answer the questions asked after it in the spaces provided.

1. Name the rivers marked

   1. _____ 3. _____

   2. _____ 4. _____

2. Name the Lakes Marked.

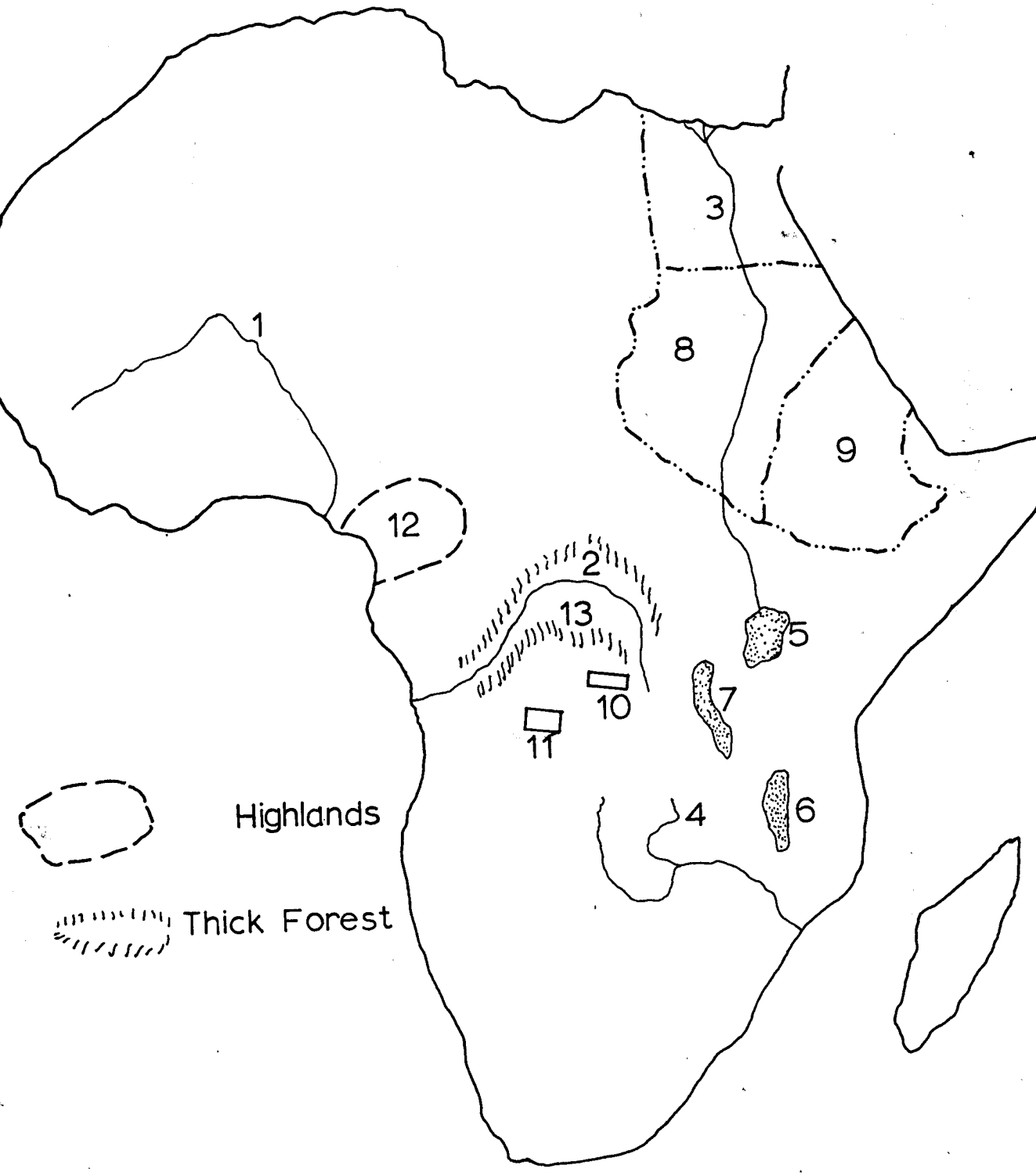
   5. _____ 6. _____ 7. _____

3. Give the ancient name of the modern country marked 8 _____

4. Give the ancient name of the modern country marked 9 _____

5. Name the 16th century Kingdom situated at 10 _____

Map for Section E



6. Name the 16th century Kingdom situated at 11 _____

7. a) Name the highlands marked 12 _____

   b) Why were these highlands important? _____

   _____

8. a) Name the Late Stone Age people who lived in forest 13.

   _____

   b) What do you think were their problems in these forests? Give three reasons.

   i. _____

   _____

   ii. _____

   _____

   iii. _____

   _____

SECTION F (15 Marks)

Write a paragraph each on three of the following topics. Use the space provided below.

1. The Middle Stone Age.
2. How we learn about the past.
3. Imagine you are a Bushman hunter living in the Kalahari desert. Describe your activities with regards your way of life.
4. Sebitwane's rule in Bulozi.

APPENDIX B TEST TWO MARKS: 100

NAME _____ GRADE _____ TIME: 2 HOURS 48 MINUTES

GENERAL INSTRUCTIONS

Given below is a grade 9 term 1 test based on the work covered in grade 8. Answer all sections. You are advised to read the instructions carefully given under each section before attempting the questions. Please do not forget to complete all your particulars.

SECTION A (10 Marks)

Below are ten incomplete statements. Four choices are given for the completion of each statement. Choose the best to complete each statement, and circle the letter of the answer of your choice.

1. The most reliable source of history is:
   A. Linguistics
   B. Visual sources
   C. Archaeology
   D. Written records.
2. Microliths belonged to a group of people called:
   A. Early Stone Age
   B. Middle Stone Age
   C. Late Stone Age
   D. Early Iron Age
3. According to the theory of evolution the greatest change in the development of man has been:
   A. the size of his thumb
   B. the size of his body
   C. the ability to stand on his feet
   D. the size of his brain

4. The first Europeans to come to Zambia were:

   A. Germans

   B. British

   C. French

   D. Portuguese.

5. The period to which Homorhodesiasis belonged was:

   A. Middle Stone Age period

   B. Early Stone Age period

   C. Late Stone Age period

   D. Early Iron Age period.

6. Proconsul Africans was discovered at:

   A. Fort Ternan

   B. Olduvai Gorge

   C. Rusinga Island

   D. Sterkfontein.

7. The Lozi Kingdom weakened after the death of Mulambwa in the 1830s because:

   A. Sebitwane failed to unify the country

   B. the Ngoni defeated the Lozi people around this period

   C. A civil war developed between Silumelume and Mubukwanu

   D. Sebitwane was a leper and distrusted the people around him.

8. The main reason which led to the decline of the Kazembe Kingdom in the Luapula valley in the 19th century was:-

   A. the area became infertile thus could not support many

   B. conquered chiefs stopped paying tribute to Kazembe

   C. Kazembe lost the monopoly of trade to foreigners

   D. all of the above

9. Archaeologists believe that Ingombe Ilede was a trading centre because:

   A. clay pots, some of which looked like the pots of the Shona people, were found

   B. two kinds of burials were excavated, one for the rich and the other for the poor

   C. salt produced near that area was highly desired in other areas.

   D. some of the goods excavated were not produced at Ingombe Ilede.

10. The Bemba used the Chitemene system of Agriculture because:

   A. the trees were a harzard to them.

   B. they wanted more space for their crops

   C. their soil was not fertile for farming

   D. none of the above.

SECTION B (10 Marks)

Work out centuries to the following years.

Write your answers in the spaces provided.

	Year	Century
A.	1990 AD	_____
B.	1750 AD	_____
C.	950 AD	_____
D.	150 BC	_____
E.	1100 AD	_____
F.	90 AD	_____
G.	5 AD	_____
H.	6000 BC	_____
I.	1890 BC	_____
J.	1 BC	_____

SECTION C (10 Marks)

Answer all the following questions. Write your answer in the spaces provided after each question. Use one word answer or a short phrase.

1. What title was given to the rulers of the Lunda Kingdom?

_____

2. The name given to places where remains of prehistoric men have been found is: _____

3. What traditional ceremony is practised among the Lunda of North-Western Province? _____

4. A system where a woman's side is more important than the man's side is called: _____

5. What name is given to places where ancestoral spirits were believed to be found? _____

6. What was the other name given to Southern Ape man? _____

7. Who was the founder of the Luba empire in Zaire? _____

8. What name is given to men who study rocks? _____

9. Name the archaeologist who discovered wooden tools near Kalambo falls. _____

10. What name was given to the Bemba paramount chief? _____

SECTION D (10 Marks)

Read the following passage carefully and answer the questions at the end.

Tsetse zones, like the Luangwa valley, from the Copperbelt Southwards towards the Zambezi and over much of the Northern and North-eastern Provinces, have proved a severe hindrance to cattle-owning peoples throughout prehistoric times. They may also have

affected the migration of prehistoric population into Zambia.

During Stone Age times man was obliged to settle in areas where game and fish were plentiful, vegetable foods abundant and water supplies readily available. This led to a concentration of human settlement along river banks and besides lakes. As the Stone Age developed man moved out into less favourable areas, living in caves and rockshelters or camping by dry season rivulets on the plateau. Like herds of game, early man was completely dependent on the environment for his survival.

During the past two thousand years the introduction of agricultural economies led to greater residential stability and a larger population. Men lived in large communities, but the areas where they could live were still limited by such factors as tsetsefly and soil fertility and good grass, apart from the need for good drainage and water supplies. Forest clearance too, was an important factor in population distribution. The earliest farmers had few Iron axes and were handicapped when it came to clearing bush gardens. Later immigrants from the Congo possessed better iron tools and were able to clear and settle larger tracts of the country. Mineral outcrops and trade routes played their part in determining the pattern of human settlement, but were not such a significant factor as they have become today.

Question:

List <u>five</u> factors which determined where man could settle in the past.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

SECTION E (15 Marks)

Study the map carefully and then answer the questions asked after it in the spaces provided.

1. Name the following oceans:

   1). _____ 2). _____

2. What name is given to Island 3 which was the most important trading center on the East Coast of Africa in the 19th Century?

   _____

3. a). Name the middlemen tribes along the routes marked:

   4 _____

   5 _____ _____

   b). Name another middleman tribe shown on the map.

   _____

4. a). Name the Europeans who settled at Luanda around the 16th century. _____

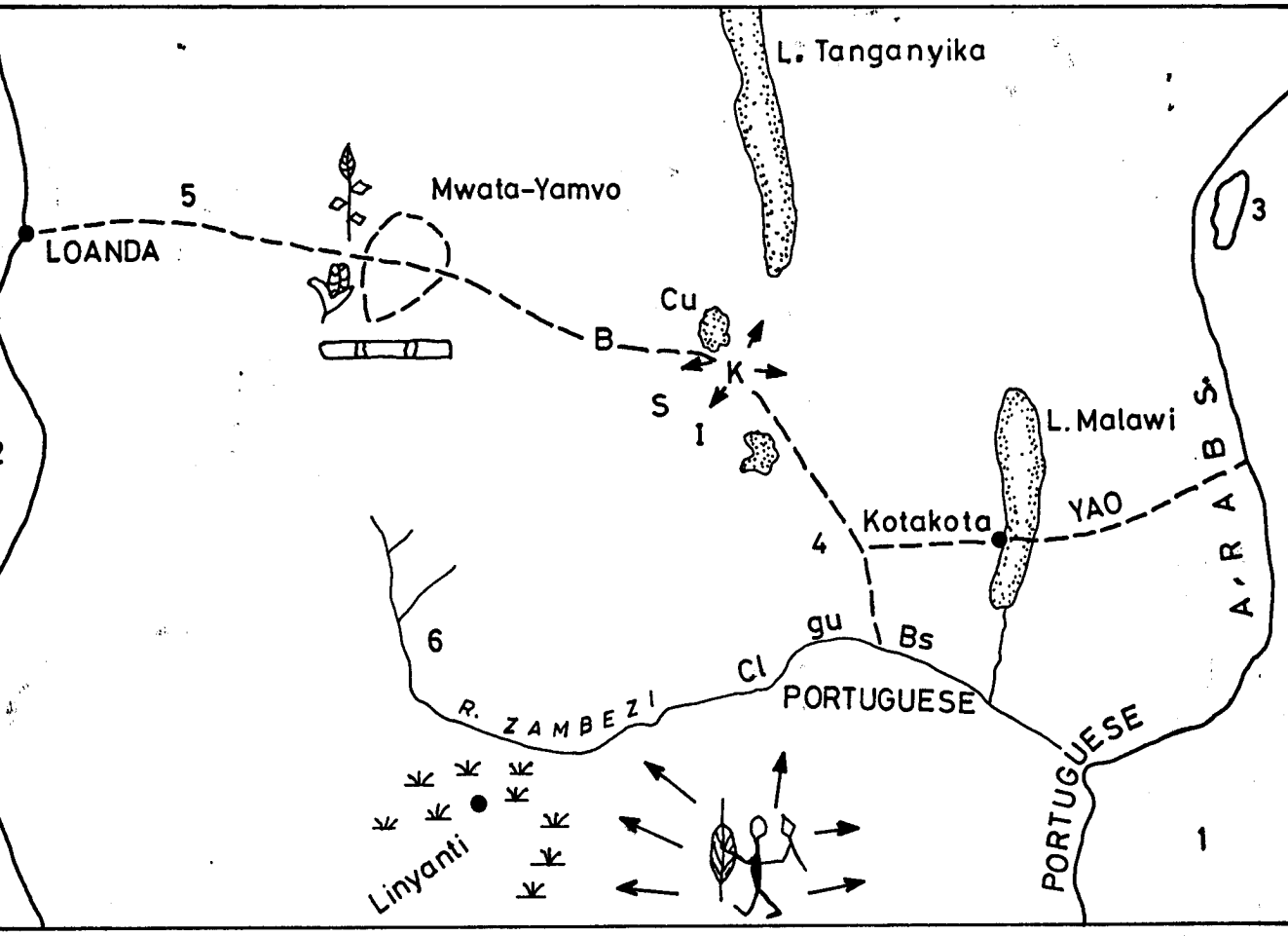
   b). Name one crop they introduced in Central Africa.

   _____

5. a). Name the people who settled around Bunkeya who blocked Kazembe's trade link with the west coast in the 19th century.

   _____

lap for Section E



EY: S = slaves
I = Ivory
Cu = Copper
Cl = cloth

Bs = beads
gu = guns

Ndebele raids

= Swamp
K = Kazembe kingdoom
B = Bunkeya

Cassava
Maize
Millet
Trade route

b). Who was their chief?_____

6. a). Name the indigenous people of the Kingdom marked "6"

_____

b). Who were the invaders from the south who conquered and defeated the people of Kingdom "6" in the 19th century?

_____

c). Why did the invaders move their capital from the north to Linyanti in the South? _____

_____

d) Why was the new capital Linyanti unsuitable?

_____

7. a) What was the most important item of trade acquired by the Lunda of Kazembe from the Zambezi valley in the 19th century?

_____

b) Why was that item of trade important?

_____

_____

SECTION F (15 marks)

Choose <u>three</u> topics and write a paragraph on each of the ones you choose.

a) decline of the Kazembe Kingdom

b) Iron smelting

c) Sekeletu

d) The Tonga society

_____

_____

APPENDIX C TEST THREE MARKS: 100

NAME _____ GRADE _____ TIME: 2 HOURS 45 MINUTES

GENERAL INSTRUCTIONS

Given below is a grade 9 term 1 test based on the work covered in grade 8. Answer all sections. You are reminded to read the instructions carefully given under each section before attempting the questions. Please do not forget to complete all your particulars.

SECTION A (10 Marks)

Below are ten incomplete statements. Choose the best answer to complete the statement and circle the letter of the answer of your choice.

1. The first creature to use stone tools was:-
   A. Zinjanthropus
   B. Ape
   C. Homo Habilis
   D. Homo Sapiens
2. The river valley in Africa where farming first began was:
   A. Zambezi valley
   B. Kafue valley
   C. Nile valley
   D. Congo valley.
3. Among the earliest tribes to arrive in Zambia were:
   A. Tonga
   B. Ngoni
   C. Bemba
   D. Kaonde

4. The people who belonged to the late Stone Age in Australia were called:

   A. San

   B. Bushmen

   C. Pygmies

   D. Aborigines

5. The year 1400 AD belonged to the _____century

   A. 14th

   B. 15th

   C. 13th

   D. 16th

6. The archaeologist who did his work in South Africa was

   A. Professor Clark

   B. Dr. Louis leakey

   C. Professor Dart

   D. Mr. Richard Leakey

7. The theory which states that the earth came from the sun was:

   A. Creation

   B. Revolution

   C. Reformation

   D. Evolution

8. Naturalistic paintings were:

   A. Paintings in which design were made

   B. Paintings in which objects looked real

   C. Paintings in which a combination of design and real objects were made.

   D. All of the above.

9. The other name for handy man was:

   A. Southern Ape Man

   B. Australopithecine

   C. Zinjanthropus

   D. Homo Habilis.

10. A system where the man's side is the most important after marriage is called:

   A. Matrilineal

   B. Virilocal

   C. Uxorilocal

   D. Patrilineal.

SECTION B (10 Marks)

Give the years to the following events. Write the year to each event in the space provided.

1. Dr. De Lacerda visited Kazembe _____

2. Zwangendaba died. _____ _____

3. The Ngoni crossed the Zambezi river near Zumbo _____

4. The skull of Broken Hill man was discovered _____

5. Monteiro and Gamitto visited Kazembe _____

6. Ing'ombe Ilede site was discovered _____

7. Death of Sebitwane _____

8. Antonio Fernandez visited the Mwenemutapa Kingdom _____

9. The Makalaka revolted against Kololo rule _____

10. Sekeletu comes to power in Bulozi _____

SECTION C (10 Marks)

Answer all the following questions. Write your answers in the spaces provided after each question. Use one word or a short phrase.

1. Name an important trading center which connected Zambia to the outside world.

_____

2. What name was given to the art of making clay pots by our ancestors? _____

3. What name was given to the Late Stone Age man (Bushmen) in South Africa? _____

4. The name given to a group of people found South of the Sahara who spoke related languages and had common economic, social, political, and cultural ways of organising themselves was:

_____

5. Name the archaeologist who did his work in Central Africa.

_____

6. Name the archaeologist who did his work in South Africa.

_____

7. Who led the Kololo from South Africa into Bulozi? _____

8. What name is given to Bushmen painting where patterns or designs were made? _____

9. Which people lived in Central Africa before the arrival of the Early Iron Age farmers? _____

10. Who led the Ngoni from South Africa into Central Africa in the first half of the 19th Century? _____

SECTION D (10 marks)

Read the following passage carefully and answer the question at the end.

Knowledge of farming began in the Middle-East along two river valleys of Tigris and Euphrates. About two thousand years ago, knowledge of farming slowly reached Zambia.

Early farmers in Zambia belonged to the Iron age period. This means that they were Iron workers. They mined iron ore or collected it from the shallow streams. After mining, they smelted the ore using either furnace or trench methods. They used iron to make tools like hoes, axes and spears.

Farmers also came with knowledge of animal keeping and pottery making. They used pots for cooking and storage. Animals kept included cattle, goats and sheep. they kept hunting dogs and chickens.

Furthermore, early farmers learnt to live in big communities. As a result they developed complex political systems with leaders, who were usually kings or chiefs. With big communities, the idea of Laws came into being. This was to enable people to live in peace.

Question:

List <u>five</u> developments brought by early farmers in Zambia.

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

SECTION E (15 Marks)

Study the map carefully and then answer the questions asked after it in the spaces provided.

1. a) Name the Kingdoms which developed in the Congo.

   Y _____ X _____

   b) Which one of the two Kingdoms was the first to develop in the Congo? _____

   c) What was the title of the rulers of Kingdom 'Y'? _____

   _____

2. a) What names were given to Kingdoms 'N' and 'M'

   N _____

   M _____

   b) From which Kingdom in the Congo did the people of Kingdom 'N' originate? _____

   c) What title was given to the rulers of kingdom 'N'? _____

   _____

3. a) 'K' and 'Z' were Early Stone Age sites.

   Name them. K _____

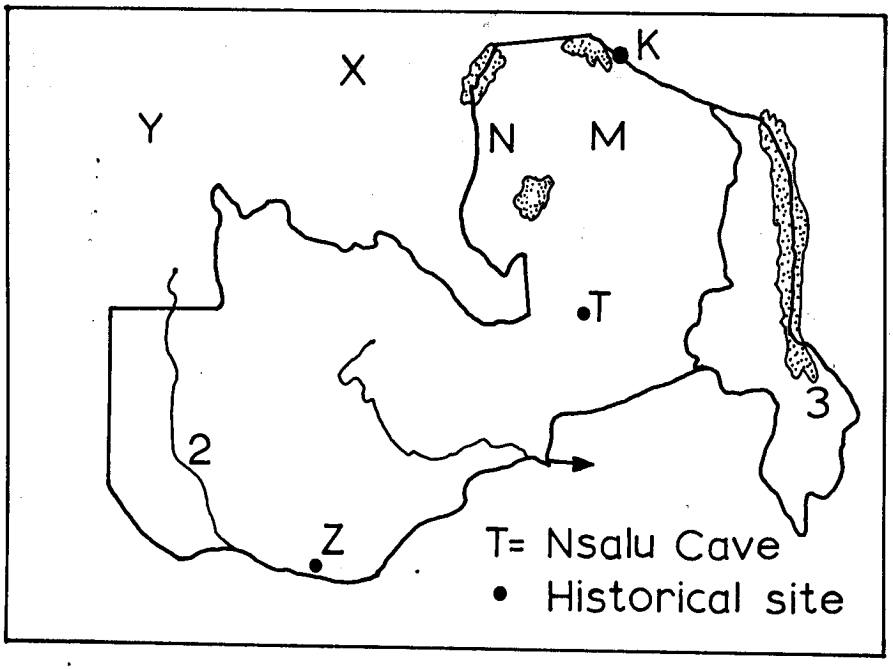
   Z _____

   b) Why is site 'K' important in Africa?

   _____

   _____

Map for Section E



c) Name the archaeologist who did his work at site 'K'

_____

4. Name the people who lived at site 'T' _____

5. Name the empire which developed in the area marked '3'

_____

6. Name the Bantu migrants from the Congo who settled in the area marked 'Z'. _____

SECTION F (15 Marks)

Choose three topics and write a paragraph on each of the ones you choose.

a) Zinjanthropus

b) Causes of Bantu Migrations

c) Why we learn history

d) Development of Man

e) Restoration of Lozi rule.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

SECTION G (15 Marks)

Read the following passage carefully and answer the questions given at the end.

Ingombe Ilede was accidentally discovered in 1960 by the Northern Rhodesia government workers - when they were trying to put up a water tank.

Here at Ingombe Ilede the workers who were putting up a water tank dug up some graves. In these graves many things were found: apart from skeletons of dead people many things such as copper crosses, copper razors, iron, gold bangles, gold and glass beads, bracelets, shells, and cloth were also dug from the graves. Tools discovered in graves were hammers, tongs, and gauges and these were probably used for making copper wires.

Some of these goods which were discovered at Ingombe Ilede indicate that Ingombe Ilede was a trading settlement in Zambia. Archaeologists tell us that Ingombe Ilede acted as a trading settlement in the 7th century to the 10th century and again the 14th to 15th centuries.

The people at Ingombe Ilede had salt pans which they controlled. These salt pans were found near Lusitu river with salt. The people of Ingombe Ilede bought Ivory, gold, copper and slaves for beads, shells, cloth and iron objects from traders from the east coast of Africa and Asia.

Gold came from Mashonaland while copper may have come from the north. Slaves and Ivory were obtained within the Zambezi valley.

Thus Ingombe Ilede which was situated near the Zambezi river which traders from the East used as a means of transport, had trading contacts both within and outside Zambia.

1. In which year was Ing'ombe Ilede discovered?

_____

2. How was Ing'ombe Ilede discovered? _____

_____

3. List three things which were dug up at Ing'ombe Ilede.

i. _____ ii. _____

iii. _____

4. Name an important item produced by the people at Ing'ombe Ilede.

_____

5. Why was Ing'ombe Ilede important?

_____

6. List two items which were exchanged for salt.

i) _____ ii) _____

7. Name the local people who lived at Ing'ombe Ilede.

_____

8. Where was gold obtained from by the people of Ing'ombe Ilede.

_____

9. a) Name the traders from the East Coast of Africa who traded with the people of Ing'ombe Ilede.

_____

b) Name one trading item they brought to the people of Ing'ombe Ilede. _____

10. What river mentioned in the passage was used as a means of tansport? _____

11. What name is given to a place where historical remains are kept?

_____

SECTION H (15 Marks)

Choose one question and write an essay in suitable paragraphs. You may use the points given to guide you.

1. Write about the life of the Late Stone Age people.
   - hunting/gathering
   - tools
   - shelter
   - paintings
   - relations with neighbours
2. Explain how we get information in history through the following:
   - oral traditions
   - archaeology
   - written records
   - anthropology
   - linguistics
   - visual aids
3. Write an essay on the rise and decline of Undi Empire.
   - origin
   - development
   - expansion
   - decline

APPENDIX D

QUESTIONNAIRE FOR THE ASSESSMENT OF INTEGRATING BLIND STUDENTS IN ORDINARY SCHOOLS AS OPPOSED TO EDUCATING THEM IN SPECIAL SCHOOLS

General Instructions

This Questionnaire has been set for blind grade 9 students and their teachers. Part I of the questionnaire is to be completed by the teachers, while blind students will be given an oral interview based on part II of the questionnaire. Please, answer all questions in your respective parts. You are reminded not to write nor give your name. Both teachers and students are reminded to present information in good faith about themselves and their views about the education of blind grade 9 students in their respective schools.

PART I: BLIND STUDENTS' TEACHER (HISTORY/SPECIALIST) INFORMATION

A. Biographical Data

1. a) Professional qualification (tick)

   i. Certificate _____

   ii. Diploma _____

   iii. Degree _____

   iv. Postgraduate diploma _____

   v. Masters _____

   b) Give the year of qualification _____

2. a) Have you done any specialist training in the field of special education? (tick)

   i. Yes _____

   ii. No _____

b) If Yes, specify the type of course done (tick)

i. Activities for Daily Living (ADL) _____

ii. Deaf _____

iii. Mentally retarded _____

iv. Blind _____

v. Other _____

ii. In which year did you attend the course? _____

3. In what type of school do you teach? (tick).

a) Special (or Residential) school _____

b) Integrated (or Ordinary) school _____

B. Questions

1. What are your teaching subjects? (tick where necessary)

a) Mathematics _____

b) English _____

c) Science _____

d) History _____

e) Geography _____

f) Civics _____

g) A.D.L _____

h) Vernacular _____

i) Religious Education ___

2. What teaching problems do you encounter in your schools?

(tick where necessary)

a) Lack of teaching equipment such as braille typewriters, frame and stylus, braille paper, and so on _____

b) Non funding of school activities such as buying of textbooks _____

c) Lack of teaching aids such as maps, charts, radio, radio cassettes, and so on _____

d) Other _____

3. Which of the following instruments are available to students for their use in the learning of the history subject? (tick where necessary)

a) Braille typewriter _____

b) Writing frame _____

c) Stylus _____

d) Braille paper _____

4. What do you think are the factors which may promote attainment of high scores in the history subject among blind grade 9 students in your schools? (tick where necessary)

a) Giving of remedials after difficult lessons _____

b) Availability of textbooks _____

c) Availability of trained staff in special education _____

d) Use of all possible visual aids during lessons _____

e) Other, such as _____

5. What, in your own opinion, should be the role of the Zambian government in the education for the blind? (tick where necessary)

a) should promote in-service training among the serving staff _____

b) should finance the buying of necessary equipment and teaching material _____

c) should provide enough incentives to teachers of the blind _____

d) should maintain a viable inspectorate for the blind students and their teachers _____

e) other, such as _____

C. Instructions

This scale has been prepared so that you can indicate how you feel about integrating students in ordinary versus educating them in separate special schools in Zambia. Please circle the number to only one alternative for each statement indicating how you feel about the statement.

1. Mixing of blind and sighted students in integrated schools results in poor academic performance among the blind
   a) strongly agree
   b) agree
   c) undecided
   d) disagree
   e) strongly disagree.

2. It is generally believed that specialist teachers promote high academic standard among blind students
   a) strongly agree
   b) agree
   c) undecided
   d) disagree
   e) strongly disagree

3. Blind students may generally lower the pass percentage in a given subject in class
   a) strongly agree
   b) agree

c) undecided

d) disagree

e) strongly disagree

4. Lack of textbooks in schools for the blind contributes to poor academic performance among blind students

a) strongly agree

b) agree

c) undecided

d) disagree

e) strongly disagree

5. Specialisation of teachers with regards to subjects taught in secondary schools leads to improved academic performance among blind students

a) strongly agree

b) agree

c) undecided

d) disagree

e) strongly disagree.

6. Lack of teaching aids like charts, braille typewriters generally seem not to contribute to poor academic performance among blind students

a) strongly agree

b) agree

c) undecided

d) disagree

e) strongly disagree

7. The Zambian government provision of assistance to schools for the blind has not generally been adequate

   a) strongly agree

   b) agree

   c) undecided

   d) disagree

   e) strongly disagree.

8. The Special Education Inspectorate generally seems not to have been active in promoting high academic standard in schools for the blind

   a) strongly agree

   b) agree

   c) undecided

   d) disagree

   e) strongly disagree

9. Non-specialist teachers generally seem to lose their tampers easily when dealing with blind students in their respective schools

   a) strongly agree

   b) agree

   c) undecided

   d) disagree

   e) strongly disagree.

10. Specialist teachers and non-specialist teachers generally seem not to cooperate when dealing with blind students

a) strongly agree

b) agree

c) undecided
d) disagree
e) strongly disagree.

11. Special schools provide a better learning environment leading to good results among students than do ordinary (integrated) schools

a) strongly agree

b) agree

c) undecided

d) disagree

e) strongly disagree.

12. Blind students in ordinary schools become more adapted to problems from the sighted and the community at large than blind students in special schools

a) strongly agree

b) agree

c) undecided

d) disagree

e) strongly disagree.

PART II. BLIND GRADE 9 STUDENTS' INFORMATION

A. Biographical data

1. Age _____

2a) Are you repeating grade 9? (tick)

i. YES _____

ii. NO _____

b) If YES, for how many years? _____

B. Questions

1. a) Do you like your school bearing in mind that there are other types of schools elsewhere? (tick)

i. YES _____

ii. NO. _____

b) If YES, what do you like about your school? (tick)

i. Good subjects _____

ii. Helpful teachers and non-teaching staff _____

iii. The buildings _____

iv. Other _____

2. What subjects do you like best in your school? (tick)

a) Mathematics _____

b) English _____

c) Geography _____

d) Civics _____

e) History _____

f) Science _____

g) Religious Eduation _____

h) Vernacular _____

3. How is the history subjects to you? (tick)

a) Simple _____

b) Moderate _____

c) Difficult _____

4. What teaching aids are used in the learning of history? (tick where necessary).

a) Maps _____

b) Charts _____

c) Radio _____

d) Radio cassettes and tapes _____

e) Text books _____

f) Other _____

5. a) Do you get enough help from your teacher of history? (tick).

i. YES _____

ii. NO _____

b) If YES, what kind of help is given? (tick).

i. Clarifies difficult areas in the lesson _____

ii. offers remedials after lessons are over _____

iii. assists in your mobility in and outside the class _____

iv. teaches with the help of teaching aids most of the times _____

v. other, such as _____

6. a) Do you get enough help from your specialist teacher? (tick).

i. YES _____

ii. NO _____

b) If YES, what kind of help is given? (tick).

i. offers remedials after some difficult lesson _____

ii. gives instructions in Activities for Daily Living _____

iii. assists in your mobility in and outside the class _____

iv. other, such as _____

7. What problems do you face in your learning of the history subject? (tick where necessary)

a) lack of brailled history textbooks _____

b) lack of adequate writing equipment like braille typewriters, braille paper, frame and stylus _____

c) inadequate attention from the teacher of history _____

d) Other, such as _____

APPENDIX E

ESTIMATED TOTAL POPULATION OF BLIND STUDENTS IN PRIMARY, BASIC AND INTEGRATED SECONDARY SCHOOLS IN ZAMBIA IN 1990.

	PRIMARY SCHOOL Grade 1-7	BASIC SCHOOL Grade 1-9	INTE-GRATED SECO-NDARY Grade 8-12	GRAND TOTAL
Magwero Primary School (Chipata)	67	-	-	67
Sefula Primary School (Mongu)	81	-	-	81
Mporokoso Blind Primary (Kawambwa	86	-	-	86
St. Mary's Basic (Kawambwa)	-	112	-	112
Ndola Lions Basic (Ndola)	-	123	-	123
Mumbwa Secondary School (Mumbwa	-	-	9	9
Kasama Girls Secondary School (Kasama)	-	-	3	3
Katete Secondary School (Katete)	-	-	8	8
Mporokoso Secondary School (Mporokoso)	-	-	18	18
Kalomo Secondary School (Kalomo)	-	-	5	5
Munali Secondary School (Lusaka)	-	-	10	10
TOTAL	234	235	62	531