

THE ATTITUDES AND PERCEPTIONS OF SECONDARY SCHOOL
PUPILS IN TRANSKEI TOWARDS GEOGRAPHY:
A CASE STUDY OF THE BUTTERWORTH DISTRICT

THESIS

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by

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DECLARATION

I hereby declare that this is my original work and has not been submitted for the award of any degree at any other University.

A handwritten signature in black ink, appearing to be 'E. Sarpong', written over a horizontal dashed line.

(Emmanuel Sarpong)

ABSTRACT

Considerable attention has in recent times been given to the attitudes of secondary school pupils towards Geography among black schools in South Africa. Many reasons account for this. It is partly because of the poor results and falling numbers of pupils in the discipline. Concern has also been expressed on the relevance of the Geography syllabus to the black pupils. Evidence suggests that these problems are evident in Transkei. The need therefore exists to assess pupils' attitudes towards Geography in Transkei.

Arising from this background, this study sets out to assess the attitudes of secondary school pupils in Transkei towards Geography. Two hundred and thirty four pupils from eight urban and rural secondary schools in the Butterworth District of the Republic of Transkei were used in the study. Attitudes were measured in terms of "interest in Geography", "desire to study the discipline", "commitment to Geography" and the perceived relevance of the discipline.

Through the use of techniques such as percentages, chi-square and principal component analysis - among others - for the analysis of the data, the following information emerged from the study:

- (1) Geography is generally perceived as being worthy of study;

- (2) Differences in responses were noted to result from a complex of factors which were grouped into home environmental factors and school environmental ones.
- (3) The major factor influencing attitudes towards Geography was noted to be home environmental conditions. In general pupils from lower income families expressed more positive views about the worth of Geography than those from the upper income families.

From the above findings, it has been proposed that teachers and educational planners need to be made aware of these findings as they are important for classroom practice. It has also been recommended that there is a need to improve certain school practices such as taking pupils on Geography excursions more often as factors such as this were shown to improve pupils' attitudes towards the discipline.

TABLE OF CONTENTS

LIST OF TABLES	vii
ACKNOWLEDGEMENTS	ix
CHAPTER ONE - BACKGROUND TO THE STUDY	
1.1 The Context of the Problem	1
1.2 The Rationale	3
1.3 Objectives of the Research	9
1.4 Organisation of the Study	9
CHAPTER TWO - THEORETICAL AND CONCEPTUAL FRAMEWORK	
2.1 Objectives of Geography Education	11
2.2 Attitudes	13
2.3 Attitude Change	15
2.4 Research into Pupils' Attitudes to Geography	18
2.5 Geographical Education in Transkei	18
Summary	20
CHAPTER THREE - RESEARCH DESIGN AND METHODOLOGY	
3.1 Data Collection : Types and Sources	21
3.2 Selecting Instruments to Assess Pupils' Attitudes to Geography	21
3.3 Questionnaire Construction	23
3.4 Research Location	25
3.5 Sample Selection	27
3.6 Administration of the Questionnaire	29
3.7 Validity and Reliability of the Data	30
3.8 Data Analysis	31
3.9 Limitations of the Research	34
CHAPTER FOUR - PUPILS' ATTITUDES TO GEOGRAPHY : RESEARCH RESULTS	
4.1 Background of Respondents	36
4.2 Reasons for Studying Geography	37
4.3 The Desire to Study Geography	38
4.4 Attitudes Regarding the Utility of Geography	39
4.5 Interest in Geography	41
4.6 Commitment to Geography	42
4.7 Attitudes Towards Areas of the Discipline	43
4.7.1 Physical Geography	43
4.7.2 Mapwork	44
4.7.3 Settlement Geography	45
4.7.4 Fieldwork	45
4.7.5 Studying About Other People	46
4.8 Geography and Other Disciplines	47
Summary	48

CHAPTER FIVE - PUPILS' ATTITUDES TO GEOGRAPHY :
WITHIN GROUP DIFFERENCES

5.1	Socio-Economic Factors	50
5.1.1	Respondents Grouped According to School Location	51
5.1.1.1	Location and Background to Studying Geography	52
5.1.1.2	School Location and the Desire to Study Geography	52
5.1.1.3	School Location and the Utility of Geography	52
5.1.1.4	School Location and One's Interest in Geography	53
5.1.1.5	School Location and Commitment to Geography	53
5.1.1.6	School Location and Attitudes Towards Specific Areas of Geography	53
5.1.2	Pupils' Attitudes to Geography and Mode of Travelling to School	54
5.1.3	Respondents Grouped According to Parental Education	55
5.1.3.1	Level of Parental Education and the Perceived Utility of Geography	57
5.1.4	Attitudes to Geography and Parental Help	57
5.1.5	Watching Television and Attitudes to Geography	58
5.1.5.1	Television Viewing and One's Interest in Geography	59
5.1.6	Listening to the Radio News and Attitudes Towards Geography	60
5.1.6.1	Listening to the Radio News and the Perceived Utility of Geography	61
5.1.6.2	Listening to the Radio News and Attitudes Towards Physical Geography	61
5.1.6.3	Listening to the Radio News and Attitudes Towards Mapwork	61
5.1.6.4	Listening to the Radio News and Attitudes Towards Settlement Geography	61
5.1.7	Attitudes to Geography and Newspaper Reading	61
5.2	Factors Relating to the School Environment	64
5.2.1	Pupils' Attitudes and Length of time Studying Geography	64
5.2.2	Attitudes to Geography and Geography Excursions	66
5.2.3	Geography Excursions and the Desire to Study Geography	67
5.2.4	Geography Excursions and Attitudes Towards the Utility of Geography	67
5.2.5	Geography Excursions and One's Interest in Geography	68
5.2.6	Geography Excursions and Attitudes Towards Areas of Geography	68
	Summary	69

CHAPTER SIX - PUPIL'S ATTITUDES TOWARDS GEOGRAPHY : THE UNDERLYING FACTORS

6.1	Principal Component Analysis	71
6.2	Deriving the Factors	72
6.3	Naming the Factors	72
6.4	The Major Factors Underlying Attitudes to Geography	78

CHAPTER SEVEN - CONCLUSION

7.1	Summary of Findings	81
7.1.1	Attitudes Towards Geography	81
7.1.2	Elective Subjects	82
7.1.3	Group Results	82
7.1.4	Differences in Attitudes	82
7.1.5	Principal Component Analysis	83
7.2	Conclusions Drawn	83
7.3	Recommendations	84
7.3.1	Socio-Economic Factors and Attitudes Towards Geography	85
7.3.2	Syllabus Design	85
7.3.3	Length of Time Spent Studying Geography	86
7.3.4	Geography Excursions	86
7.4	Future Areas of Research	86
7.4.1	Relationship Between Pupils' Perceptions and Socio-Economic Conditions	86
7.4.2	The Newspaper Factor in Attitudes Towards Geography	87
7.4.3	Attitudes Towards Other Disciplines	86
7.5	Conclusion	87

LIST OF REFERENCES	89
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APPENDIX A: EXAMPLE OF QUESTIONNAIRE TO PUPILS	92
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APPENDIX B: EXAMPLE OF LETTER TO SCHOOL PRINCIPALS	98
--	----

APPENDIX C: SYLLABUS INTRODUCTION - GEOGRAPHY	99
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APPENDIX D: PROCEDURE INVOLVED IN THE PRINCIPAL COMPONENT ANALYSIS	107
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LIST OF TABLES

	Page
Table 1.1 : Percentage Passes (Higher Grade) in Some Subjects of the Transkei Standard Ten Examination Results - 1985 - 90	6
Table 1.2 : Number of Candidates for the Various School Subjects (Higher Grade) 1985-1990	8
Table 3.1 : Selected Schools	28
Table 3.2 : Percentage Distribution of the Sample According to Gender	28
Table 3.3 : Age Distribution of the Sample	29
Table 3.4 : Percentage Distribution of the Respondents According to Location	29
Table 4.1 : Percentage Distribution of How Pupils Came to Study Geography	37
Table 4.2 : Percentage Distribution of Pupils' Responses Towards the Desire to Study Geography	39
Table 4.3 : Percentage Distribution of Pupils' Responses to the Utility of Geography	40
Table 4.4 : Percentage Distribution of Pupils' Responses Relating to the Interest of Pupils in Geography	41
Table 4.5 : Percentage Distribution of Pupils' Responses Relating to Commitment to Geography	42
Table 4.6 : Percentage Distribution of Pupils' Attitudes Towards Physical Geography	43
Table 4.7 : Percentage Distribution of Pupils' Attitudes Towards Mapwork	44
Table 4.8 : Percentage Distribution of Pupils' Attitudes to Settlement Geography	45
Table 4.9 : Percentage Distribution of Pupils' Attitudes Towards Fieldwork	46
Table 4.10: Percentage Distribution of Pupils' Attitudes Towards Studying About Other Peoples	47
Table 4.11: Percentage Distribution of Responses Towards the Usefulness of Geography in Relation to Some Selected School Subjects	48
Table 5.1: Significant Differences in Attitudes Towards Geography as a Result of the Location of Respondents	51
Table 5.2: Percentage Distribution of Mode of Travelling to School	54
Table 5.3: Significant Differences in Responses Attributed to Mode of Travelling to School	55
Table 5.4: Percentage Distribution of Level of Education of Head Among Respondents	56

Table 5.5:	Significant Differences Recorded in Responses Attributed to Differences in Level of Education of Head of Family	56
Table 5.6:	Significant Differences in Responses Attributed to Parental Help	57
Table 5.7:	Percentage Distribution of Television Viewing	58
Table 5.8:	Significant Differences in Responses Attributed to Frequency of Watching Television	58
Table 5.9:	Frequency of Listening to the Radio News	59
Table 5.10:	Significant Differences in Responses Attributed to the Frequency of Listening to the Radio News	60
Table 5.11:	The Summary of Newspaper Reading Habits	62
Table 5.12:	Significant Differences in Responses Attributable to Newspaper Reading	62
Table 5.13:	Percentage Distribution of the Length of Time Respondents Have Spent Studying Geography	64
Table 5.14:	Significant Differences in the Responses Attributed to the Length of Time Spent Studying Geography	65
Table 5.15:	Percentage Distribution of Attendance at a Geography Excursion	66
Table 5.16:	Significant Differences in Responses Attributed to Exposure to Geography Excursion	66
Table 6.1 :	Contributions of the Main Factors	72
Table 6.2 :	Loadings Associated with Factor 1	73
Table 6.3 :	Loadings Associated With Factor 2	73
Table 6.4 :	Loadings Associated with Factor 3	74
Table 6.5 :	Loadings Associated with Factor 4	74
Table 6.6 :	Loadings Associated with Factor 5	75
Table 6.7 :	Loadings Associated with Factor 6	75
Table 6.8 :	Loadings Associated with Factor 7	76
Table 6.9 :	Loadings Associated with Factor 8	76
Table 6.10:	Loadings Associated with Factor 9	77
Table 6.11:	Loadings Associated with Factor 10	77
Table 6.12:	Loadings Associated with Factor 11	78
Table 6.13:	Loadings Associated with Factor 12	78

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Chapter One

BACKGROUND TO THE STUDY

Introduction

This study examines the attitudes towards Geography of selected standard seven and eight pupils in the Butterworth District of Transkei. These pupils are used as a case study to gauge Transkeian pupils' perceptions of the discipline and to note some of the major factors influencing the attitudinal positions expressed.

1.1 The Context of the Problem

Affective factors have always played a central role in Geography education as the discipline is both concerned with attitudes in Geography and attitudes to Geography (Slater, 1982). Several reasons give rise to this situation.

In the first place, Geography lays claim to both cognitive and attitudinal aims among the objectives of its education (Bailey, 1974). This is partly because by its very nature Geography examines issues that are capable of providing "concerned insights" into a situation, by considering the feelings, anxieties and intentions of other people. The development of insights such as these is not just dependent on knowledge but on one's attitudes (Graves, 1971).

There is also a belief that the learning of Geography by its very nature should lead to international understanding and tolerance by providing

appropriate knowledge. Indeed it is lack of knowledge that results in people's distorted attitudes towards other countries and this can be ascribed to the neglect of Geographical education at school level. Hence "... on that basis many false ideas and endeavours could have been avoided" (Keys and Omerad, 1976, p. 414). This further reinforces the discipline's concern for attitudes. Geography as a discipline also demands neatness, order, thoroughness and accuracy. While these virtues are transferable to areas beyond the subject itself, it is also a fact that to be geographically educated implies the acquisition of such attitudes. These attitudes result in a respect for the worthwhileness of the discipline (Graves, 1971). This will in turn produce positive attitudes towards the discipline. Attitudes thus represent the Geography teacher's new frontier (Huckle, 1976). These reasons repudiate suggestions that values and attitudes can be kept out of the Geography teacher's classroom.

While it is accepted that the Geography content is not value free, attitudes have a further impact on the discipline in terms of the pupils' attitudes regarding whether they perceive Geography as either "valueless" or "valuable". Current research has furthermore indicated that pupils' attitudes may negatively or positively affect their performance in school (Blair, 1975). For instance, if a pupil has positive attitudes "about teachers and likes school work, it is almost inevitable that he will experience some success and through reinforcement, (a feeling of achievement), will work more effectively, and achieve more nearly to his capacity. Positive attitudes towards Geography therefore imply that the discipline will be well received and that pupils' performances in it will be high. Conversely, negative attitudes towards school and teachers usually signify that he will fight attempts to make him learn" (Blair,

1975, p. 36). Therefore the inference is that if school pupils have negative attitudes towards a school subject such as Geography they will not enjoy it and are less likely to spend time and energy gaining mastery over it (Mwamwenda, 1985). This can be summed up in the assertion "one should like what one does well and do well what one likes" (Mwamwenda, 1985, p. 102).

It is in recognition of these facts that several studies reflect the interest of educators in the role of study habits and attitudes in determining academic success (Christensen and Massey, 1989). The various studies have resulted in an ongoing argument in education circles about whether one should stress the development of proficiency in a discipline in the hope that motivation will follow or stress the development of positive feelings in the hope that this will encourage the development of proficiency.

The central role played by affective factors also influences pupils' preference for the discipline besides its effects on the acquisition of Geographical knowledge. Such a situation arises as a result of the development of negative attitudes towards the discipline.

1.2 The Rationale

The rationale for this study is based on the following:-

(1) Attitudes towards Geography affect academic attainments in the discipline. It has however, been noted that academic achievement in turn affects the life of every school pupil in many ways. According to Grifore and Samuels (1978) it can have a strong influence on the person's self

image (Morelanda, Miller and Laucka, 1981) and on his relationship with other pupils (Taylor, 1964). Lewis (1974) also notes that even after graduating, poor results can keep a pupil from pursuing further education (In Moreland, Miller and Laucka, 1981) or as Gordon (1974) has noted obtaining a desirable job (Moreland, Miller and Laucka, 1981). Thus according to Vincent, (1970) college students, for instance, frequently mention college grades as a major source of anxiety in their lives (Morelan, Miller and Laucka, 1981). According to Blaine and McArthur (1971) concern about college grades accounts for over half of all requests for counselling in the USA (In Moreland, Miller and Laucka, 1981). An assessment of pupils' attitudes to Geography is therefore necessary in the solution of the problem of academic achievement.

(2) Attitudes to Geography are also at the very heart of a Geography teacher's work as it affects pupil's performance in the classroom. A poorly motivated pupil consumes time which may not yield results in the end while only serving to delay the more highly motivated students (Lindgren, 1972). Indeed considerable anxiety has existed on the part of a teacher when his/her pupils perform badly in their examinations (Cohen, 1968). To remove this anxiety, teachers need to understand how the pupils perceive the discipline they teach. Such an understanding can come only from an assessment of the prevailing situation. As Szentes, (1971) claims, "it is impossible to bring about a deliberate and purposeful change in the present without knowing how this state came about. We can't successfully fight any phenomenon without knowing its roots" (p. 3).

(3) The nature of and factors underlying pupils' attitudes to Geography are also important as they enable a teacher to determine the strength and

weaknesses of his pupil so that he can modify his teaching accordingly (Blair., 1975). According to Blair a "teacher who knows a great deal about learning but little about the learner is only half prepared" (Blair, 1975, p. 120). A study of pupils' attitudes to Geography will therefore help teachers to know their pupils better.

(4) Attitudes towards Geography are also important for the selection and identification of curriculum content. Geography has often been criticised for having "syllabuses that are too long" (Graves, 1985, p. 21). The solution to this is to prune the syllabus, the problem however is what to include and what to exclude. This cutting down can be done only when the attitudes of the population towards the discipline are assessed in order to provide evidence as to what is of the most concern to the population (Fien and Gerber, 1988).

(5) While the range of skills, knowledge and concepts which each discipline claims to develop are generally well known, the way people (especially pupils) see the discipline in relation to such aims is less well understood (Lumb and Child, 1976). Without this understanding there is a dichotomy between the intended aims of a discipline and its achieved aims.

(6) Identifying the attitudes of pupils to Geography is important if one is to enhance the image of the discipline.

An analysis of Geography education in Transkei reveals many problems:

(a) There is for instance a serious shortage of well-trained teachers in the discipline, besides the absence of adequate and suitable textbooks. The annual report of the Department of Education, Transkei (1986), identified the following problem areas of general education in Transkei which needed

to be addressed. Among such problems are the constant overcrowding in schools, an absence of guidance and counselling and the predominance of subject matter, poor infrastructure and the lack of support services for teachers which all have their effect on attainments in the discipline. Apart from these general problems, there were other more pertinent problems noted such as pupils' attainment in Geography and the growth of pupil enrolment in the subject.

(b) An analysis of the Standard Ten Senior Certificate results for Transkei, when compared with other subjects, would seem to indicate that the attainment of Geographic knowledge falls short of the intended outcome for the discipline - especially at the Higher Grade level. Table 1.1 below lends support to this assertion by comparing attainments in Standard Ten Higher Grade Geography in Transkei with some other popular subjects.

Table 1.1 : Percentage Passes (Higher Grade) in Some Subjects of the Transkei Standard Ten Examination Results : 1985 - 90.

Subjects	Percentage Passes					
	1985	1986	1987	1988	1989	1990
Xhosa 1st Language	91.1	94.8	92.1	92.1	86.5	91.7
S. Sotho 1st Lang.	89.9	84.5	90.8	97.1	94.3	97.9
Zulu 1st Language	89.7	74.4	71.4	100	83.7	100
English 1st Lang.	55.6	100	100	100	74.1	58.3
English 2nd Lang.	61.5	67.5	47.5	57.0	88.0	87.4
Afrikaans 2nd Lang.	36.1	28.9	22.3	22.6	45.4	42.3
Mathematics	14.5	22.9	22.8	32.8	17.1	18.5
Physical Science	9.8	27.0	22.3	23.7	23.8	21.3
Biology	25.5	42.7	37.6	34.5	37.4	26.2
History	33.2	39.7	35.8	32.1	35.8	32.4
Geography	18.0	11.7	19.6	20.3	17.5	21.7
Economics	39.2	50.4	53.0	54.9	44.5	40.0
Biblical Studies	21.0	33.1	43.0	29.6	34.8	32.1
Accounting	21.8	29.1	31.6	24.8	24.6	24.8
Agric. Science	13.3	22.8	10.6	22.1	11.9	15.3
Home Economics	28.4	33.0	67.4	31.1	29.4	27.6

Source: Summary of Examination Results, Department of Education, Umtata

The table above reveals that attainment in Geography has often been either the poorest overall (1986 and 1988) or at best third from the bottom (1985, 1989, 1990). It can be deduced from the above statistics that nearly 80% of the higher grade candidates who write Transkei matriculation examinations in Geography fail. Results such as these are capable of leading to what Raen (1977) describes as "disenchantment with the discipline". Poor results in Geography would tend to affect pupils' attitudes towards the discipline negatively (Porter, 1986).

Negative attitudes to the discipline can also lead to other, more serious problems. One such problem is the drop in pupil numbers. While there has always been a problem of providing a satisfying and satisfactory education for secondary school children for whom the traditional public-examination-oriented curriculum fails to appeal or for whose needs it is unsuited (Cox, 1983, p. 69), the drop in pupil numbers is not the same for all subjects. There is ample evidence that subject preference is related to one's needs, wishes etc. There will be a steady increase in numbers where a discipline achieves these for its students. As Elms has noted this is because "people come to hold positive attitudes towards anything that helps them to attain their goals, and negative attitudes to anything that blocks goal attainment" (Porter, 1986, p. 88).

If claims regarding enrolment figures as an indication of a subject's ability to develop further are to be believed then it would seem that Geography as a discipline in Transkei is less successful than other subjects in the school curriculum since there has been a slower growth in the number of Geography candidates for some time when compared to many of the others. This is borne out by Table 1.2 below.

Table 1.2 : Number of Candidates for the Various School Subjects
(Higher Grade) 1985 - 1990.

Subjects	Number of Candidates						% Increase 85-90
	1985	1986	1987	1988	1989	1990	
Xhosa 1st Language	12381	11603	11630	14892	16288	19871	61
S.Sotho 1st Lang.	427	375	380	516	548	621	45
Zulu 1st Language	40	48	42	2	49	30	-25
English 1st Lang.	9	10	15	24	58	60	567
English 2nd Lang.	12848	11914	12051	15412	16886	20321	58
Afrikaans 2nd Lang	5376	4116	3516	3707	3507	3326	-38
Mathematics	1808	1373	1146	1239	1320	1257	-22
Physical Science	1832	1282	1373	1470	1351	2553	39
Biology	6598	10553	10593	14348	15173	14839	125
History	5350	5644	6606	8471	9857	11713	119
Geography	1898	1819	1783	2575	2408	3071	62
Economics	579	700	859	1078	1312	1534	165
Biblical Studies	2406	2652	2960	4605	5669	6853	185
Accounting	339	435	451	407	574	640	89
Agric. Science	1072	1211	1020	1199	1253	1411	32
Home Economics	346	279	396	726	759	758	119

Source: Summary of Examination Results, Department of
Education, Umtata

The table above reveals that while there has been growth in the number of candidates taking higher grade Geography, the growth has been smaller when compared with competing disciplines such as History. Overall the growth rate of candidates in Higher Grade Geography is eighth among the sixteen subjects listed. According to Raby and Walford (1981), the problem relating to negative attitudes towards a particular discipline or disciplines would seem to stem from a general failure of the education system to provide a curriculum which makes sense to pupils by meeting their needs and interests, thus resulting in considerable wastage of potential. Recent research would seem to indicate that changes in pupils' subject preferences over time show a movement in demand towards those subjects perceived to be related to better employment prospects (Tarsh, 1982).

The need to assess Transkei pupils' attitudes to Geography within this scenario cannot be over-emphasised. A further factor necessitating such a study is related to the fact that pupils are the major consumers in the school population and therefore their perceptions of events are important. An understanding of the attitudes towards Geography which have developed as a result of learning is a necessary beginning to acknowledging the central role of attitudes in the study of the discipline. A study of pupils attitudes to Geography is therefore important if one is to identify and to solve the apparent problems that confront the discipline in Transkei.

1.3 Objectives of the Research

In the light of the above analysis the main objectives of the present study are as follows:

- (1) to investigate the attitudes of pupils towards Geography;
- (2) to identify the differences in attitudes that can be ascribed to demographic, socio-economic and school environmental factors;
- (3) to make recommendations in the light of the findings in
(a) and (b) above;

1.4 Organisation of the Study

The study consists of six main Chapters and a Conclusion.

The first chapter reviews the background to the study. It has been devoted to stating and explaining the problem, reviewing the background to the

problem, stating the objectives of the study and providing a rationale for the study.

Chapter two provides an explanation of the major concepts and theories relevant to the research.

Chapter Three describes the research methodology including the sample used, the instruments, and the techniques employed in the research. The chapter furthermore explains and provides an analysis and justification of the data gathering techniques employed and the research location.

Chapter Four summarises the data collected and provides a broad perspective of pupils' attitudes to Geography.

Chapter Five presents the significant differences in the broad perspectives of pupil attitudes; it reflects differences in the respondent population gathered through section A of the questionnaire (Appendix A).

Chapter Six is intended to identify the major factors that influence the attitudinal positions presented in chapter five using the technique of principal component analysis.

Chapter Seven presents the conclusions resulting from the evidence in the three previous chapters. This chapter also carries recommendations based on these conclusions that are intended to address the problems identified as a result of the study.

Chapter Two

THEORETICAL AND CONCEPTUAL FRAMEWORK

Introduction

Having outlined the objectives of the research in the previous chapter, this chapter reviews the major themes and theories relevant to this study. These relate to attitudes, their role in Geographical education, the factors influencing attitude change, and the conclusions of studies into pupil attitudes to Geography. The chapter will also provide the operational definitions for concepts that will guide the analysis of the data.

2.1 Objectives of Geography Education

The identification of highly specific and even measurable objectives characterises educational programmes of the post war years. The effects of this trend has been felt in all the disciplines. According to Hirst, "with no clear statement of objectives set out to guide them, teachers only too easily take the statement of the mere content of the curriculum or syllabus as a statement of the objectives to be pursued" (Fay, 1981, p.12).

According to Bailey, "the purpose of teaching Geography is to enable the growing child and young adult to conceptualise and set in order the dimension of space in which all human beings live" (1976, p. 8). The basic aim of geography teaching, therefore, must be to illuminate the pupils' understanding of the world beyond the school (Bailey, 1974). This world includes the attitudinal realm. In this context it is accepted that the content of Geography is not value-free. This implies that "school geography

should cover a vast range of experiences for pupils" (Levy, 1984, p. 212). At a UNESCO conference in November 1988 delegates from 25 countries hailed Geography as a key subject for teaching about global issues (Editorial, Geographical Education, 6/1 1989).

Geography is, however, neither static in terms of its general aims nor with regard to the specific objectives upon which the content is based. The changes in the approach to Geography is reflected at school level and this has resulted in changes in emphasis, methods and in its perceived role in education.

From the writings of people such as Chisholm, (1975); Smith, (1977); Hall (1984); Preston-Whyte (1982) and Walford (1981), it is possible to assess "the way Geographers have thought and now think and the methods they use" (Jensen, 1977, p. 12). In the tradition of Kuhn (1977) a time framework seems to be the basis within which to examine these changes. With respect to Geography, three phases - the period before 1950, the period from 1950 to 1965 and the post - 1980 era are a convenient basis within which to view developments in the discipline.

The period before 1950 is best characterised as dominated by the Geography of description. This period in Geographical development emphasised the acquisition of a large body of information about different regions of the earth's surface. The student of Geography was perceived as having a great body of facts about different places in the world. Maps were the principal aid in the imparting of Geographical knowledge.

Between the 1960s and 70s however students of Geography felt dissatisfied with pure description and wanted greater explanation and understanding rather than a large body of facts for its own sake. This was the era of science characterised by the search for regularities and order. Quantification was the principal tool of Geographers in seeking to create this order. Quantification furthermore established the notion that a student of Geography was concerned not only with the acquisition of a body of facts but rather with perceiving the world of man in a certain way.

Beyond the 1980s the discipline shifted its emphasis to a perception of the environment as viewed by the individual. In the words of Yi-Fu, Tuan, "Geography is the mirror of one's self" (Quoted in Harvey, 1969, p. 122). It is this latter trend which firmly entrenched attitudes and perceptions as a hallmark of Geographical enquiries. This latter trend is indicated as an objective in the school Geography syllabus in Transkei in the following injunction to teachers: "studies in Geography should promote the formation and reinforcement of positive attitudes and values" (Syllabus Introduction, 1985, p. 4).

2.2 Attitudes

The word "attitude" comes from the latin word "aptus" meaning fitness or adaptedness. The Oxford Universal Dictionary defines an attitude as, "a way ... of thinking or behaving" (Oxford Dictionary, 1981, p. 49). "Attitudes determine for each individual what he will see and hear, what he will think and what he will do" (Allport, 1954, p. 43-45). It enables the individual to "slip into some frame of mind peculiar to himself" (Allport, 1954, p. 22).

Despite the vast amount of literature related to attitudes, there is considerable disagreement about the concept and its theoretical foundations. The word "attitude" as used in this study, however, refers to the state of mind of the individual towards a value. Thus in this study love of money, desire for fame, hatred of foreigners, respect for scientific doctrines, love or hatred of a discipline etc are all various types of attitudes. According to Allport (1954) four conditions emerge for the formation of attitudes (a) the integration of numerous specific responses within an organised structure; (b) the differentiation of more specific action patterns and conceptual systems from the primordial; (c) nonspecific attitudes of approach and withdrawal; and (d) the adoption of attitudes by imitation of parents, teachers or peers (Quoted in Campbell, 1968). These four conditions imply that attitudes are indeed a part of the "general acquired behavioural dispositions" (Campbell, 1968, p. 107-111).

According to Thomas (1978), attitudes are learnt, but while this may be true, it is also true, as Mouly (1985) has noted, that attitudes cannot be taught in the same sense in which one can teach a specific discipline (Quoted in Ballantyne, 1987). Formal instruction can, however, help in crystallising attitudes that are already forming so that the individual can act in a positive way as a result of the development of positive attitudes (Ferron, 1984). This results from the fact that, "... learners construct understanding. They do not simply mirror and reflect what they are told or what they read. Learners look for meaning and will try to find regularity and order in the events of the world even in the absence of full or complete information" (von Glasersfeld, 1984, P. 3). Applied to a school situation, attitudes, according to Thomas, incorporate cognitive, affective, and conative elements.

Since the relationship between attitudes and overt behaviour is difficult to establish the measurement of attitudes in many studies is limited to intentions (Wicker, 1973).

The major areas of focus in research into attitudes include attitudinal expectations, educational openings and utility of a discipline in terms of job creation (especially for higher education pupils) (Williams, 1970; MajoriBanks, 1976; Brown and Peelo, 1982). Attitudinal measurement related to school disciplines is an emergent area which is likely to become important as accountability of the various school disciplines increasingly becomes a feature of the educational system (H.S.R.C., 1981).

For a variety of reasons Geography is likely to feature prominently in studies related to attitudes. This is partly because problems have been identified with regard to its areas of focus. To Dear for instance, "contemporary Geography is an eclectic mish-mash of old and new, pertinent and irrelevant, the quirky and incomplete" (Dear, 1988, p. 263). How pupils perceive Geography, therefore, is an important field for investigation. Equally important is the fact that a concern with attitudes happens to be one of the objectives of Geography education.

2.3 Attitude Change

If attitudes are accepted as being important then one needs to look at how they change. This is made necessary by the consideration that recommendations which may arise as a result of this study need to be looked at within this context. It is known that established attitudes can be

changed with time (Festinger, 1957). This assertion is supported by many personality theorists who claim that because individuals are dynamic, a person's attitudes should develop and change under the influence of the roles that they play and adjustments that they make in life. Often changes in attitude are brought about through identification with people such as peers, teachers, etc. However there has always been a problem with attitude change. This is partly because, "each of us construct knowledge which fits our experiences. Once we have constructed this knowledge, then simply being told that we are wrong is not enough to make us change our misconceptions" (Kennedy and Haniski, 1975 p. 876). Different theories have been proposed to examine the processes through which attitude changes occur. Most of these theories allege that attitudes change only in response to definite communication. One of the well known theories of attitude change, the theory of cognitive dissonance by Festinger (1957), alleges that there is a discomfort when one person holds two cognitions one of which is the converse of the other. Because of this discomfort, he argues, one is motivated - depending on the importance of the cognition and the information available - to change the attitude.

2.4 Research into Pupils' Attitudes To Geography

In the light of the above observations, several studies have been initiated world wide to examine the attitudes of pupils to Geography. A number of these studies have been conducted in the United Kingdom in particular. In one such study Bellamy (1977) used a sample of nearly 300 sixteen to nineteen year old pupils to assess the attitudes of pupils to Geography. He concluded that despite some optimism, several negative tendencies about matters such as relevance existed in pupils' perceptions. In another study

of student opinions Allen (1980) discovered that many students accepted some items of a traditional nature as being a part of the discipline. Some items relating to modern Human Geography had a low level of acceptance while others had a high level of acceptance.

In a study conducted among sixth form college students in Essex and the London Borough of Havering, Stephens (1984) concluded that many students studied Geography at advanced level because they enjoyed it in previous years. A considerable number of the 248 students in the sample also chose Geography because they had good grades in the discipline. This conclusion was also arrived at in Bramwell's study (1984), which tends to support the assertion that one of the considerations for pupils' subject preference is related to how well they performed in the subject. The same would seem to apply to attitudes (Mwamenda, 1985). In addition to his earlier conclusion Bramwell also found that school Geography was neither a predominantly male nor a predominantly female - oriented subject. Watson (1982) set out to study the effects of the option system on choice of Geography in the upper (14-16) school curriculum. His studies confirmed the fact that about half of the students in the upper forms chose Geography as one of the subjects in their curriculum because they do well in it.

Studies by Robinson (1982) highlighted the fact that the less able a student is in Geography, the more likely it is that he will have negative attitudes about the discipline and vice versa. Research into pupils' attitudes to Geography tends to indicate that it is related to attainment.

2.5 Geography Education in Transkei

Education in Transkei has responded to political developments in the Republic of South Africa, its former colonial power. This has been occasioned by the closeness of the relationship between the two countries and the extent to which this impacts on education in the Transkei.

Formal education was introduced in Transkei as part of missionary (mostly Methodist and Anglican) activities in 1820. The early mission schools were set up in Butterworth, Clarkebury, St Marks, Buttingville, Holy Cross, Shawbury, Palmerton, Emfudisweni, and Bensonvale (Ngubentombi, 1984). These institutions taught the three Rs and also provided industrial skills. Following the imposition of British colonial administration over the Cape Province, education in Transkei passed into government hands. It was during this period that Geography along with many other liberal arts was added to the curriculum (Levy, 1984).

From the early 1960s, education in Transkei was operated by Transkeians. It is interesting to note, however, that the links between Transkei and the Cape Province through syllabus provision and textbooks had, if anything, been strengthened. The development of educational provisions was accelerated much faster in the 1970s than in the earlier period. Teacher education was expanded and more teachers were being trained in specialised subject areas than before. Subject advisors have been employed and an in-service department developed. The number of schools were also increased. The Department of Education in Umtata also retained the services of professional planners. Finally, a University was built.

These developments have had an impact on the way the discipline is taught today in the sense that teaching techniques and the supply of equipment have been much improved. This is not to say that Geography education in Transkei today receives the support it deserves nor is it provided with the necessary inputs it needs.

The 1970s also brought a noticeable change in emphasis in the teaching of geography in South Africa with its consequent absorption by Transkei. Both textbooks and examination papers moved away from the acquisition of knowledge by pupils towards the application and interpretation of this knowledge (Levy, 1984, p. 211). In Transkei a new syllabus was introduced to reflect these developments through the disappearance of static and descriptive Geography from the school syllabus. In this connection the introduction to the syllabus stresses quantitative expressions, systems theory, model building, and the development of positive attitudes.

The links between Transkei and the Cape Education Department have meant that changes in the Geography curriculum come more from outside than inside. These links have meant that while attitudes are firmly entrenched in Geographical education, problems facing black rural folk such as housing and water supplies in Transkei do not feature in the school Geography syllabus. The discipline is also strictly compartmentalized into areas such as Geomorphology, Climatology, Economic Geography and the Regional Geography of different parts of the earth's surface with few links between them. The main objective has been and still is to provide pupils with factual knowledge despite attempts to emphasise skills, concepts and attitudes. These factors will obviously affect the way pupils view the discipline. As Ausubel has noted "the most important single factor

influencing learning is what the learner already knows" (Ausubel, Novak and Hanesian, 1978, p. 61).

Summary

From the examination of the major themes and concepts relevant to this research the following has emerged:

- (1) Geography education is concerned with attitudes within the subject and towards the subject.
- (2) Attitudes represent a way of thinking or behaving.
- (3) Peoples' attitude can be formed and changed depending on among others information available and the roles they play in life.
- (4) Pupils' attitudes to a particular discipline will - among other things - depend on their academic performance in that discipline.
- (5) The general nature of the syllabus is such that there is the inclusion of topics which have a perpetual relevance to individual pupils.

Chapter Three

RESEARCH DESIGN AND METHODOLOGY

Introduction

This chapter outlines the research design and justifies the use of methods utilised in the collection and the analysis of the data.

3.1 Data Collection : Types and Sources

In terms of the objectives of this research, data collection was primarily related to the following :

- (1) selecting instruments to assess pupils' attitudes towards Geography;
- (2) the selection of pupils for the sample population
- (3) the selection of instruments to analyse the attitudes expressed
- (4) the identification of techniques which help to isolate within and between group differences; and,
- (5) the selection of techniques which help to identify the factors which influence attitudes towards Geography

3.2 Selecting Instruments to Assess Pupils' Attitudes to Geography

The research survey centres around attitudes defined in Chapter Two as the state of mind of the individual towards a value. Various methodologies have been utilised for the measurement of attitudes. Three widely used methods for the measurement of attitudes are: interviews, the Likert scale, and the semantic differential. In view of problems of communication, and

interpretation, coupled with the lack of the necessary resources, the use of interviews was discarded in this research.

The Likert scale is a five point scale that is designed to measure a person's response towards an object or a situation. While research in education has tended to concentrate on the use of the Likert scale, this is not necessarily the most established approach (Snider and Osgood, 1969). The Likert scale is easier to use because its design makes it readily understood. However, it is involved and it is difficult to handle its responses (because of the way it is constructed) while the semantic differential is easier to construct, less involved and can measure attitudes just as well (McCallon and Brown, 1971).

The Semantic differential measures the attitudes of individuals towards certain objects, situations or concepts. Essentially the semantic differential offers a choice of attitudes to an object along a continuum. The technique is advantageous because it offers both associational and scaling properties (Snider and Osgood, 1969, p. 26). Due to these advantages, some researchers consider the semantic differential as offering greater validity than the Likert scale (McCallon and Brown, 1971). To obtain the benefits of the two methods, however, they are both employed in this research.

The use of both a semantic differential and a Likert type scale involves the use of questionnaires. Accordingly, the primary data for this research was gathered through questionnaires. Despite the complexities and limitations of using questionnaires, such as problems with levels of literacy and the lack of freedom in the choice of answers, this was decided

upon as the best means of gathering the required data with regard to the instruments selected (Cohen and Manion, 1984).

3.3 Questionnaire Construction

The content of the questionnaires used was arranged under headings to reflect the major research areas. There were four main research areas: (1) Desire to study Geography (2) Interest in Geography (3) Commitment to the subject, and (4) Perceived relevance of the subject. The whole questionnaire, however, is divided into five major sections.

The first section of the questionnaire identifies details pertaining to the characteristics of the survey population. The second section identifies pupils' backgrounds in Geography (such as length of time spent studying the subject). This section, comprising 16 items, demanded responses of either a Yes or No/True, or False type of question. The third section consist of 36 items which are statements concerning attitudes to Geography. In this pupils were presented with sets of statements about Geography ranging from positive to negative in tone. The statements were researcher designed items on aspects of Geography to which the pupils responded. Individuals rated each item on a five point Likert scale ranging from 1 (strongly agree), 2 (agree), 3 (undecided), 4 (disagree), 5 (strongly disagree) to indicate the degree to which the statement expresses their personal beliefs about aspects of Geography.

Five aspects of Geography were of concern in the development of the questionnaires: Geography as a classroom discipline; Geography as a functional tool; Background (in terms of time spent) to the study of

Geography; development of Geographical thinking; textbooks in Geography education; and the perceived relevance of Geography. Acknowledging the current practice in questionnaire construction, half the statements expressed favourable attitudes while the other half expressed unfavourable attitudes (Fergusson, and Francis, 1979, p. 234).

The fourth section of the questionnaire involved the use of a semantic differential as a measure of pupils attitudes towards Geography. This comprised nine adjectival words arranged into pairs as an evaluative scale. Pupils evaluated their attitudes to aspects of Geography using these pairs of adjectives. The adjectival pairs used were adapted from those proposed by McCallon and Brown (1971) for assessing the attitudes of pupils towards Mathematics. The adapted pairs selected were: Productive - Unproductive; Varied - Repetitive; Pleasant - Unpleasant; Good - Bad; Nice - Awful; Satisfying - Frustrating; Comfortable - Uncomfortable; Valuable - Worthless; and Enjoyable - Unenjoyable.

Each adjectival pair is placed on a five point scale corresponding to Most, Very, Just, Not, and Not Very. A higher score in this case is indicated by the extent to which the perceived entity was rated closest to the particular adjective. Each adjectival pair was used to assess the attitudes of pupils to different aspects of the Geography syllabus. The use of this technique was designed as a supplement to the first and to help assess some of the reasons behind the particular attitudes about geography held by the pupils. The two techniques were combined in one questionnaire which expressed an even spread of opinions.

The position of Geography may be evaluated either by pupil enrolment, subject numerical status relative to alternative subject electives in the school curriculum or by the perceived utility of a discipline, relative to other disciplines (Ballantyne, 1987). This latter method was added to the methodology utilised in this research and appropriate questions were listed as the last section (section five) of the questionnaire. In this connection, a comparative scale of the various subjects studied at school was drawn up. Respondents were then asked to rate each subject in terms of a scale of usefulness. The degree of pupils' acceptance or rejection of the statement along the scale proposed was used to assess their attitudes to the discipline in general. This section of the questionnaire was designed as the best expression of an individual's attitude towards the Geography discipline. Higher scores represent a favourability index for the particular item.

3.4 Research Location

The research was conducted among standard seven and eight pupils of eight schools in the Butterworth district. Research such as this should in all probability have been conducted among all the secondary schools in the Transkei. Such an approach is, however, fraught with serious difficulties among which can be mentioned financial and other logistical constraints. Factors in favour of Butterworth include its rural and urban component which is "representative" of the country, a long history of education leading to a satisfactory teacher base, and the personal experience and participation of the researcher in Geography education in the district.

The Butterworth District lies towards the southern part of Transkei. It has an area of 664 km² which forms barely 2% of the total area of Transkei. As in all other areas of Transkei, the District can be divided into the urban (comprising the area within the municipal boundaries of Butterworth town) and the Rural (comprising the rest of the region). Besides its geographical dimension, this division also relates to differences in certain socio-economic factors. The rural areas are characterised by very low incomes, poor housing conditions, and communal living. The major economic activity is farming. Rural residents are, therefore, generally poorer and have less formal education than those in the urban areas (Thomas, 1985). In the urban areas, on the other hand, incomes are much higher, housing conditions are better, and economic activities vary from commerce through industry to finance. Urban residents are also more individualised and the basic family unit is the nuclear family. This dichotomy was taken into consideration in the selection of the sample size for this study.

During the last census (1985) 75494 people were listed as living within the District (4% of the total population of Transkei) divided into 32838 males and 42656 females. The rural population was given as 48151 and the urban population 27343. Urban population growth rate has been so rapid (36%) that the Butterworth District now has the highest ratio of urban population to rural population by district in the whole of Transkei (Muller, 1984). This is due mostly to the selection of Butterworth as an industrial growth point and the consequent increase in industrial establishments. Currently, Butterworth has over 50% of all industries in Transkei. It is not surprising that urban population density at 2486 per square km is the highest in Transkei. However, the rural population density of 72 square km

is moderate. There are 97 educational institutions in the Butterworth district, comprising four pre-schools, 18 Junior Primary Schools, 20 Senior Primary Schools, 40 Junior Secondary Schools, 10 Senior Secondary Schools, 2 Training Colleges, 1 Technical/Vocational Institute, 1 Technikon and a University Branch.

3.5 The Sample Selection

For mainly logistical reasons, the study was limited, primarily, to 300 standard seven and standard eight secondary school pupils drawn randomly from 8 Junior and Senior secondary schools in the Butterworth District of the Republic of Transkei. The major aim in focussing on standard eights and sevens in this research is to compare attitudes to Geography in a period before and after adjustment to Senior secondary school Geography.

The transition from junior secondary to senior secondary has often been noted to be of great importance to the life of a child (Duckworth and Entwistle, 1974). It may either encourage development through presenting challenge and stimulation or have a detrimental effect (Finlayson and Cohen, 1987; Evans, 1987; Chitensen and Massey, 1989). It seems, therefore, that it is a critical stage in education and thus deserving of one's focus in assessing attitudes.

To ensure objectivity in the selection of the schools and at the same time ensure that variations in the school population were accounted for, multi-stage cluster sampling involving the grouping of the population and the selection of respondents from each group was utilised. All the Junior Secondary Schools in the Butterworth District were arranged into two

groups: rural and urban schools and listed alphabetically. Thereafter two schools were selected from each group using a table of random numbers. A similar procedure was utilised for the Senior Secondary Schools. In each school only one class was used. The selected schools and the proportion of pupils from each is listed on table 3.1 below.

TABLE 3.1 : SELECTED SCHOOLS

SCHOOL	LOCATION	NUMBER OF RESPONDENTS	STANDARD
A	Urban	68	8
B	Urban	30	8
C	Urban	41	7
D	Urban	10	7
D	Rural	45	8
E	Rural	43	7
F	Rural	43	7
G	Rural	20	8
Total		300	

Source: Field Survey, 1991

The survey sample was drawn so as to reflect the differences in the population in terms of certain characteristics (for instance more of the respondents were selected from the rural areas because of the higher population in those areas). Tables 3.2, 3.3 and 3.4. below summarise some of the demographic characteristics of the sample used.

Table 3.2 : Percentage Distribution of the Sample According to Gender

Gender	Percentage
Females	66
Males	34

Source: Field Survey, 1991

Table 3.3 :

Age Distribution of the Sample

Age	Number of Respondents
< = 13	10
14	14
15	41
16	47
17	40
18	44
19	22
20+	16

Source : Field Survey, 1991

Table 3.4 : Percentage Distribution of the Respondents
According to Location

Area	Percentage
Rural	67
Urban	33

Source : Field Survey, 1991

From Table 3.2 it can be deduced that 34% of the sample were males and the remainder females. The pupils ranged in age from 12 years to over 20 (Table 3.3). They have all been studying Geography for at least one year. One hundred and fifty seven of the respondents came from the rural area while 76 came from the urban area (Table 3.4).

3.6 Administration of the Questionnaire

The questionnaire was initially administered to twenty pupils (ten from standard seven and ten from standard eight). The purpose of this technique was to test understanding of the items proposed. Results of the first test indicated that only half of the respondents understood all questions. Changes were effected to the wording of some of the questions without

changing their essence. In the second test 90% of the pupils in the sample understood all the questions (as measured by their ability to answer all questions). The modified questionnaire was accepted for the research.

The questionnaires were personally administered by the researcher to avoid problems relating to postal surveys such as delays and low return of responses (Cohen and Manion, 1988). In each school, however, the class teacher's help was enlisted to ensure that an atmosphere was created that was conducive for the completion of the questionnaires. Pupils were asked not to identify themselves in an attempt to encourage truthfulness in the completion of the questionnaire. Where an individual failed for one reason or another to answer a certain question the individual's total data set was rejected to forestall bias through selectivity. For this reason three hundred questionnaires were distributed but only 234 questionnaires were found suitable for the analysis.

3.7 Validity and Reliability of the Data

One of the major problems with a research of this kind is the validity of the data gathered. Validity in this sense is held to mean the avoidance of bias (Cohen and Manion, 1984). Measures taken to reduce bias in this research include making the meaning of the questionnaires used very clear through corrections made after the pilot survey, varying the content of the questions used to increase interest among a wide variety of pupils, not allowing pupils to communicate with each other while completing the questionnaires and also the use of probability sampling in the selection of the sample. The use of questionnaires also encourages honesty because they are anonymous. Reliability of the data on the other hand refers to the

consistency of the answers give (Mahlangu, 1987). One of the measures taken to ensure reliability in this research was to vary the questions in such a way that one question often acted as a check on the other. This allowed the answers given to be cross-checked.

3.8 Data Analysis

The analysis of the expressed attitudes was carried out first through the following procedures:

(A) Group analysis: summarising each group of attitudes to provide a simplified picture of different aspects of the situation. The attitude scale for each individual was obtained from the value the respondent assigned to each attitudinal statement. This score was assumed to be an indication of the individual's location on the attitudinal scale represented by the scale statements (Edwards, 1956).

To allow the measurement of the attitudes to be placed in a proper perspective, the analysis is broken into the major components of the questionnaire (e.g. interest in Geography). In using the Likert type scale in assessing attitudes, it is being assumed that attitudes form a continuum and that each individual expression is represented as a point along the continuum. Several attitudes are considered in this connection not as a set of discrete entities, but as a series of class intervals along the attitude continuum.

(B) Within Group analysis : the expressed attitudes to aspects of Geography by the different population groups (e.g. males) were also summarised

through assessing : (1) the relative popularity of each attitude of the scale for a designated group as shown by the frequency distribution for that group (2) the range of opinions accepted or rejected and (3) the degree of homogeneity in the attitudes of a designated group to a particular attitudinal statement as shown by the spread or dispersing of its frequency distribution.

Hypothesis testing was also carried out in order to establish differences so as to enable a comprehensive picture to be revealed. The hypothesis used stated that the distribution of group responses to each attitudinal item would be identical. The alternative hypothesis would, therefore, imply that the distribution of group responses to items in the questions indicate shifts in the response locations.

To enable group differences (as in sex) to be tested for significance, the chi-square test is utilised. It is used when comparing the number of groups falling into a certain descriptive category. While it is often used to distinguish between two categories, it can also be used to categorise three or more groups. The chi-square test compares the observed to the theoretical frequency and answers the question of whether the differences could be ascribed to chance. Its basic principles are that (1) there is a theory or an idea of a certain kind about how the cases should be distributed (2) there is a sample showing how the cases are actually distributed and (3) there is a wish to know whether or not the differences between the theoretical and the observed frequencies are of such size that these differences might reasonably be ascribed to the operation of chance. It is simple, clearly understood and easy to use. A 95% level of significance is the minimally accepted level in using the chi-square test.

Differences are also considered only if the P-value is <0.01 . At this level, the null hypothesis (H_0), which asserts the independence of the groups, is rejected and then the alternative hypothesis (H_1), which holds that the variables are dependent, is accepted.

(C) Underlying trends : the scores from the 234 returns were also correlated and placed in a hierarchical cluster to identify groups of items which - taken together - might reflect some underlying attitudinal dispositions. A principal component analysis was then carried out to probe more fully the relationship between the variables. This resulted in twelve decisional scales with internal reliability coefficients (Cronbach, 1951) of 0.50 or more.

Principal component analysis can be employed in a number of research strategies. The method can be employed to test or evaluate hypotheses deduced from a theory (Bell, 1955); to transform a set of variables to a new set of orthogonal factors for input into a regression model, to explore the underlying structure into a data matrix and to achieve parsimony in data description (Moser and Scott, 1961).

In this research principal component analysis will help to group the variables which will make description easier (parsimony) and also help to reveal the major dimensions of the attitudes. Through principal component analysis it is intended in this research, to reduce the variables in the data matrix to a form that reflects the general pattern characteristic of the variables. This, apart from providing information on the individual variables as they relate to their means and standard deviations, also portrays the relationship between the variables through their

correlations. In principal component analysis only the estimated variance - the portion of the variance in each variable which is related to that in other variables analysed - is subjected to scrutiny. The common variance represents common elements running through the data resulting in high correlations. In using component analysis, the selected variables will also be combined with the other modulating variables such as the level of parental education, or the age of respondents.

Using principal component analysis, attitudes towards Geography were identified and arranged into 12 major groups accounting for more than 71% of the total variance. These are 'commitment to Geography'; 'lack of Interest', 'subject utility', 'subject interest', 'subject usefulness', 'use of knowledge', 'subject difficulty', 'Geography and Jobs', 'parental interest', 'Geography and other subjects', 'subject matter', and 'Subject curriculum'.

In addition to the measures outlined above, various tables, and figures were employed at various stages of the interpretation to help in the elucidation of the data. They were also employed to help in bringing about concise description of the data.

3.9 Limitations of the Research

This research is likely to suffer the following limitations:

(1). The study assessed the views of only 234 pupils. This raises questions about the generality of the results. While time and cost constraints were the main considerations in the selection of this sample size, it severely limits the applicability of the results. The conclusions cannot for

instance be construed to mean that it has perfect validity for the rest of the population. The sample size is also not enough to assess properly differences between different types of schools, socio-economic conditions and the backgrounds of pupils.

(2). This study also did not probe the personality and professionalism of Geography teachers. Interviews conducted among teachers would have provided much useful information about teacher attitudes, school organisation as regards options and how these affect pupil attitudes.

(3). The mere expression of an attitude also does not mean that one will act in accordance with it. Therefore, it is possible that replication of this research among the same respondents might produce different results.

(4). The presence of the subject teacher and of the researcher is likely to have influenced pupil attitudes.

(5). Data for this study was collected during the first week of June 1991. At that time most pupils were writing their half year examinations. Their attitudes could, therefore, be coloured by the perceived easiness or difficulty of their Geography examinations. Time constraints made it impossible to find a more suitable time. However, it is possible that any such effects may influence pupils' judgement in either way.

Notwithstanding these limitations, this study attempts to be a pointer to an existing situation.

Chapter Four

PUPILS' ATTITUDES TO GEOGRAPHY: RESEARCH RESULTS

Introduction

This chapter presents and summarises the results of the survey population as a group. In interpreting the results it should be noted that for questions using a Likert scale, "strongly agree" and "agree" just like "disagree" and "strongly disagree" are often added to provide a simplified and comprehensive picture of the evidence collected. Conclusions are drawn from the evidence presented. As outlined in Chapter Three, the summary is presented with respect to the various sub-headings of the questionnaire (Appendix A).

4.1 Background of Respondents

Items 15 to 18 of the questionnaire (Appendix A) were designed to establish the Geographical educational background of the respondents. The extent of the respondents' exposure to Geography is considered as a useful indicator towards understanding the attitudes expressed.

An analysis of the results of the study reveals that most of the respondents had been exposed to the discipline from standard seven. As noted in chapter two, Geography is a compulsory subject in standard seven in Transkei. The results also indicate that less than 13% of the respondents are studying Geography for the first time in standard eight. Similarly 5.2% of the respondents indicated that they would only be

studying Geography for the first time in Standard nine. Most of these, it would seem, are new in Transkei, having begun their education elsewhere.

4.2 Reasons for Studying Geography

Attempts were also made to find out how respondents came to be studying Geography, as this could provide an idea of their commitment to and interest in the discipline. Table 4.1 below summarises responses to items 19 to 23.

Table 4.1 : Percentage Distribution of How Pupils Came to Study Geography

Influence of	Yes	No	Total
Teachers' Influence	78.6	21.4	100
Parents' Wish	54.5	45.5	100
No other Option at School	39.9	60.1	100
Friends' Influence	38.5	61.5	100

Source: Field Survey, 1991

The table above reveals that most of the respondents studied Geography because they were influenced by their teachers to do so. While 39.9% indicated that they do Geography as their options are limited, respondents among this group also indicated that teacher influence had been the major factor in their studying Geography. It would seem reasonable, therefore, to conclude that teacher influence is of paramount importance in the choice of subjects among the respondents. The small influence of friends is noteworthy. While one would expect peer influence to be particularly strong at this age (Cherian, 1987) this does not seem to be a factor here.

In view of the fact that only 32% of the respondents have parents who had received formal education to standard eight level, it is surprising that

54% of the respondents reported the fact that their parents were happy that they were studying Geography. One could perhaps infer that the parents' happiness relates to the fact that they are receiving some education and is not specifically related to the fact that they are studying Geography.

According to Bailey (1974) teacher support would tend to imply that Geography as a discipline is considered as a necessary part of a child's education. If this assertion is to be accepted, then it seems worrying that an analysis of the results reveals that nearly 40% (85 out of 234) of the respondents had no opportunity to study Geography because it alternates with other subjects, most notably the commercial and technical subjects. While it might be necessary to curtail subject choice due to staff shortages, space problems and time constraints, there is a need to determine elective subjects carefully. It seems reasonable to conclude that lack of understanding of Geography's importance causes many schools to make Geography an alternative to other subjects irrespective of the fact that due to its broad nature it is a suitable vehicle for introduction to many other subjects (Fox and Reintges, 1990). In the words of Dear, "all social process is contingent upon Geography; Geography is a condition of social life" (Dear, 1988, p. 271).

4.3 The Desire to Study Geography

An aspect of pupils' attitudes to a discipline is reflected by their desire to study the subject. In this connection questions 24 to 31 were designed to assess the degree to which the pupils desired to study the discipline. Such factors as understanding, enjoyment, practicality, etc were selected for this exercise. Table 4.2 below summarises the evidence from the

respondents regarding their perceptions of the discipline with respect to the factors outlined above.

Table 4.2: Percentage Distribution of Pupils' Responses Towards the Desire to Study Geography

Variable	True	False	Total
Understanding	76.5	23.5	100
Enjoyment	85.5	14.5	100
Practicality	77.8	22.2	100
Textbook Reading	50.6	49.4	100
Other subjects	32.9	67.1	100
Intelligent People	30.3	69.7	100
Abstract	30	70	100
Boring	18.9	81.1	100

Source: Field Survey, 1991

From the results of the analysis the conclusion can be drawn that there is strong evidence that pupils are favourably disposed to studying Geography. The only exception was the small difference between those who held Geography textbooks to be easy to read and those who felt that the textbooks were difficult to read. Further investigation of this is needed to understand factors which have led to the expressed opinions.

4.4 Attitudes Regarding the Utility of Geography

In looking at the perceived utility of a discipline, aspects such as helping one to secure a job, usefulness of the knowledge gained through studying Geography in one's daily life or the importance of such a knowledge as a foundation for further study were considered. Questions 32 to 40 were designed with these objectives in view. Table 4.3 below summarises the responses to these questions.

Table 4.3 : Percentage Distribution of Responses to the Utility of Geography

Items	Response				
	St. Agree	Agree	Undecided	Disagree	St. Disagree
Usefulness After School	40.6	29.9	13.7	12.4	3.4
Usefulness in Securing a Job	26.5	27.8	27.8	13.7	4.3
Requirement for Many Jobs . .	44.9	29.1	11.5	11.5	3.0
Useful to Know about the World	60.7	21.4	3.8	6.4	7.7
Knowledge of Geography Important for all	32.3	42.7	13.8	9.5	1.7
Syllabus should be based on local Environment . . .	46.6	25.9	8.6	8.2	10.8
More Useful things to Learn than Geography .	20.3	40.1	9.5	20.7	9.5
Teaching is the only Job for People who study Geography	14.7	13.8	10.8	20.7	40.1
Knowing Geography is important only in the Classroom	13.4	13.8	4.3	28.0	40.5

Source: Field Survey, 1991.

The results above reveal that the majority of the respondents view the discipline as being useful both in terms of the knowledge it disseminates and in terms of securing a job. However, there are two deviations that are of interest. The first relates to the notion that the Geography syllabus should be based on the local environment. More than seventy percent of the respondents (72.5%) believe that this should be the case. This observation would tend to suggest that the present Geography syllabus is viewed as not being entirely relevant to the pupils needs and interests. The other observation from the table is that 60.4% of the respondents believe that

there are many things which are more important to learn than Geography. This observation presents Geography with one of its most serious challenges that of getting to be regarded as important or more important than other disciplines.

4.5 Interest in Geography

The interest of pupils in Geography was measured by their indication of the extent to which Geography is interesting, creative, introduces new ideas, is prestigious to learn, etc. Questions 41 to 51 (Appendix A) seeks to assess this aspect of attitudes to Geography. Table 4.4 below summarises the responses of the pupils in this regard.

Table 4.4 : Percentage Distribution of Responses Relating to the Interest of Pupils in Geography

	St Agree	Agree	Und	Disagree	St.Disagree
Interesting Lessons	44	38.8	5.6	6.0	5.6
New Ideas	50.4	34.1	6.9	6.9	2.6
Prestige in Learning	17.5	24.6	10.3	35.8	12.1
Creativity	22.4	49.6	14.7	8.2	5.2
Parents Happy	26.7	31.9	25.9	6.0	9.5
Liking for the Subj.	34.2	33.8	10	11.7	10.4
Too much Work	33.9	45.5	7.3	6.9	6.4
Uninteresting	11.6	21	5.2	20.2	42.1
Difficult	7.3	18	12.9	30.9	30.9
Parents Not					
Interested in Geo	8.6	12.1	12.5	41.8	25
Dislike Discipline	9	10.3	6.9	25.3	58.5

Source: Field Survey, 1991.

From the results it can be deduced that there is a strong degree of interest in Geography among the pupils. This conclusion can be supported by the fact that in almost all cases at least 50% or more of the respondents either strongly agree or agree with the positive statements and then disagree or strongly disagree with the negative statements. The only

exception to this is with regard to the amount of work involved in Geography. In this case the majority of the respondents (79.4%) were of the opinion that Geography involved too much work. Geography has often been criticised in this context (Dear, 1988). The inference is, therefore, that this is an aspect which could detract from the image of the discipline.

4.6 Commitment to Geography

Another aspect of pupils' attitudes to Geography is their commitment to the discipline as measured by such factors as their willingness to study the discipline beyond their present standard (were they to have the choice) or to associate with others who study the discipline. The table below summarises the responses pertaining to pupils' commitment to the discipline.

Table 4.5 : Percentage Distribution of the Responses Relating to Commitment to Geography

	St. Agree	Agree	Und	Disagree	St.Disagree
Continue Studying Geo					
Next Year	40.9	35.3	11.6	6.5	5.6
University	35.6	34.3	16.7	6.9	6.4
Associate with People Studying Geo	30.5	44.6	10.7	8.6	5.6
More Geo Periods	32.6	23.2	12	18	14.2
End Geo this Year	11.2	12.9	12	23.6	40.3
Other Subjs. More Important	15.9	13.3	15.5	37.8	17.6
Hatred of Geo	11.2	9.4	7.3	40.8	31.3
Nothing New in Geo	13.9	34.3	13.5	19.6	18.7

Source: Field Survey, 1991

The above results would seem to indicate that the respondents are committed to the discipline. The statement eliciting the most negative response was related to pupils' perceptions of the content of the Geography they are taught. In this instance 48% of the respondents indicated that they felt there was nothing new to learn in Geography.

4.7 Attitudes Towards Areas of the Discipline

As noted in Chapter two, the various parts of the Geography syllabus tend to be studied in Transkei as discrete entities. Therefore, it was considered necessary to examine pupils' attitudes towards each of the syllabus components in order to assess the attitudes towards the discipline. The following sections are intended to explore this aspect of the research.

4.7.1 PHYSICAL GEOGRAPHY

Table 4.6 below provides a summary of the responses to physical Geography in terms of such adjectives as productive, satisfying, good, etc (Appendix A).

Table 4.6 : Percentage Distribution of Pupils' Attitudes towards Physical Geography

Productive	42.7	29.1	12.4	9.0	6.8	Unproductive
Varied	20.5	42.3	21.4	6.4	9.4	Repetitive
Pleasant	38.9	25.6	15.4	12.4	7.7	Unpleasant
Good	43.6	24.4	12.4	9.0	10.7	Bad
Nice	33.3	33.8	13.7	11.1	8.1	Awful
Satisfying	27.5	37.8	14.6	11.2	9.0	Frustrating
Comfortable	27.8	32.1	19.7	11.5	9.0	Uncomfortable
Valuable	33.8	26.9	18.8	10.3	10.3	Valueless
Enjoyable	38.0	29.9	13.2	7.3	11.5	Unenjoyable

Source: Field Survey, 1991

The picture revealed by this table indicates that pupils consider physical Geography as a necessary component of the syllabus. In most of the cases favourable responses of 50% or more were recorded.

4.7.2 MAPWORK

Table 4.7 below summarises the attitudes of the respondents to mapwork. The summary was gleaned from the answers to questions 69 to 77 of the semantic differential (Appendix A). This is one of the most important areas in the study of the discipline which also teaches several important skills.

Table 4.7 : Percentage Distribution of Pupils Attitudes towards Mapwork

Productive	27.4	35.5	15.4	12.4	9.4	Unproductive
Varied	15.0	28.6	36.3	11.5	8.5	Repetitive
Pleasant	17.1	37.6	26.5	11.5	7.3	Unpleasant
Good	26.5	37.6	12.4	12.8	10.7	Bad
Nice	35.9	23.9	22.6	9.8	7.7	Awful
Satisfying	22.2	36.3	20.5	13.7	7.3	Frustrating
Comfortable	23.9	35.9	20.5	9.4	10.3	Uncomfortable
Valuable	32.1	25.6	20.1	9.8	12.4	Valueless
Enjoyable	27.7	35.1	13.4	12.1	11.7	Unenjoyable

Source: Field Survey, 1991

From the table it can be deduced that most of the respondents hold positive attitudes towards mapwork. This is borne out by the fact that in most of the cases at least 50% of the respondents were certain of the pleasant or enjoyable nature of the activity. However, there was only one case where not very positive attitudes were recorded. This relates to assessment of mapwork as either being very varied or very repetitive. In this case 36.3% of the respondents held that they were uncertain of the role of mapwork in this regard.

4.7.3 SETTLEMENT GEOGRAPHY

Settlement Geography forms an important area of the discipline. Questions 78 to 86 (Appendix A) provided information for the assessment of how valuable pupils perceive it to be. This information is then related to how useful geographical knowledge is. Table 4.8 below provides a summary of the evidence in this regard.

Table 4.8 : Percentage Distribution of Pupils Attitudes to Settlement Geography

Productive	38.9	27.4	13.2	8.5	12.0	Unproductive
Varied	32.5	28.2	22.2	7.7	9.4	Repetitive
Pleasant	26.1	29.9	24.8	13.7	5.6	Unpleasant
Good	44.0	19.7	15.4	8.5	12.4	Bad
Nice	28.2	32.5	18.8	8.1	12.4	Awful
Satisfying	26.5	37.6	17.9	9.0	9.0	Frustrating
Comfortable	27.4	21.4	31.6	11.5	8.1	Uncomfortable
Valuable	28.2	30.8	20.9	14.1	6.0	Valueless
Enjoyable	45.0	13.9	16.5	10.8	13.9	Unenjoyable

Source: Field Survey, 1991

From these results the conclusion can be drawn that the majority of the respondents hold positive attitudes about the usefulness of settlement Geography. In most of the cases (50% or more) of the respondents believed that settlement Geography is either very productive or productive. In one instance though, that is whether they felt comfortable studying settlement Geography or not, the results detract from this pattern. In this instance, 31.6% of the respondents were uncertain, 11.5% did not feel comfortable and 8.1% felt very uncomfortable with this aspect of Geography.

4.7.4 FIELDWORK IN GEOGRAPHY

Fieldwork is not one of the systematic branches of Geography. However it is a necessary component of the course and can be used to teach any of the

systematic branches (Levy, 1984). It is such an important area of the discipline that Ledger recommends that it be put at the very centre of Geographical education (Figure 1). It is therefore considered worthwhile to assess the attitudes of pupils towards it. Accordingly, questions 87 to 95 (Appendix A) of the questionnaire sought to do this. Table 4.9 below summarises the responses of the pupils towards fieldwork.

Table 4.9 : Percentage Distribution of Pupils Attitude
Towards Fieldwork

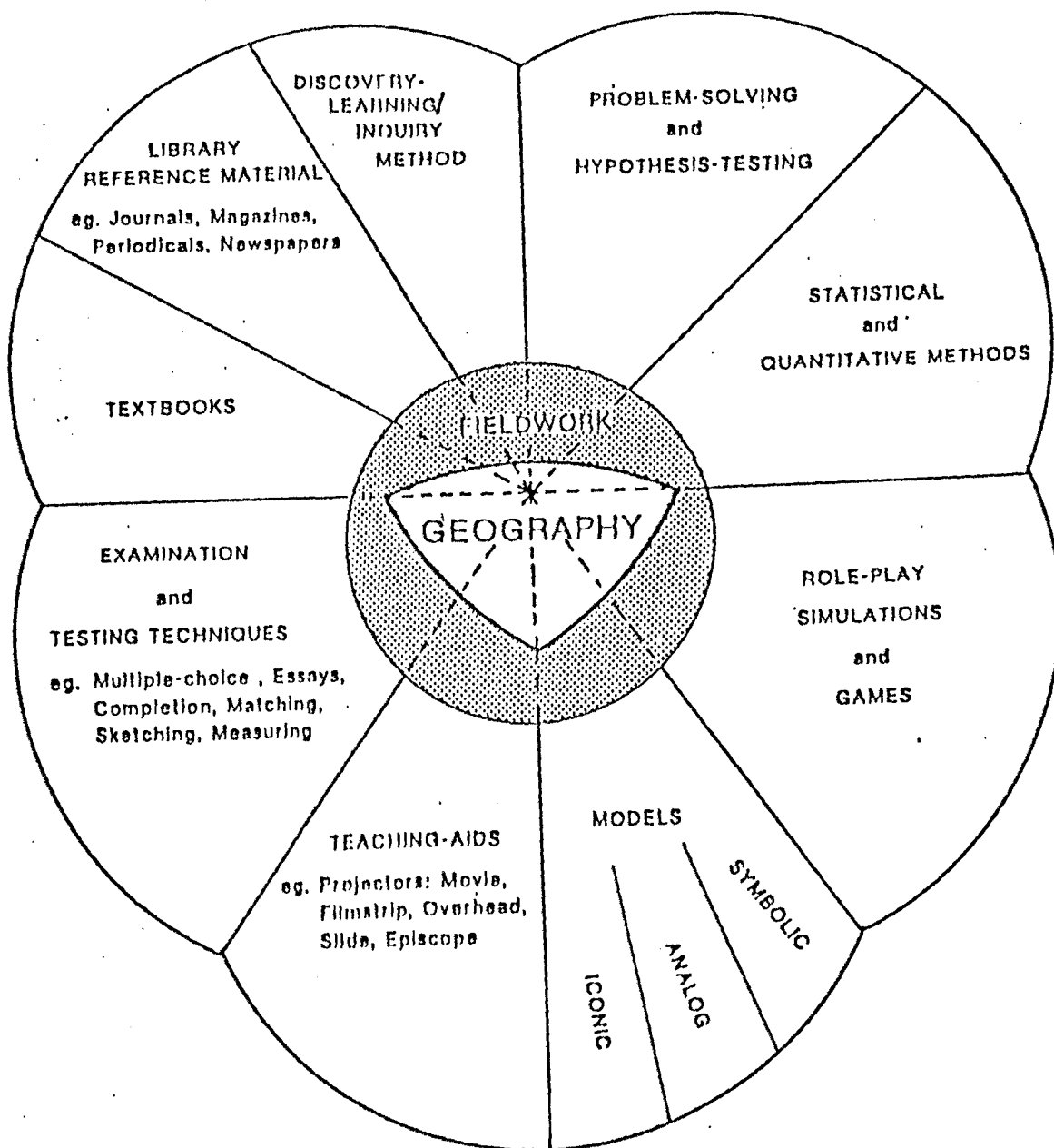
Productive	28.2	35.5	12.8	9.8	13.7	Unproductive
Varied	17.1	38.9	24.4	10.3	9.4	Repetitive
Pleasant	36.3	15.8	29.1	10.3	8.5	Unpleasant
Good	37.2	23.5	17.1	10.7	11.5	Bad
Nice	30.8	31.2	17.1	8.5	12.4	Awful
Satisfying	26.1	35.5	20.1	8.5	9.5	Frustrating
Comfortable	26.1	33.3	23.9	6.8	9.8	Uncomfortable
Valuable	20.6	32.6	21.9	15.9	9.0	Valueless
Enjoyable	26.9	26.5	19.2	11.5	15.8	Unenjoyable

Source: Field Survey, 1991

The above table reveals that fieldwork is considered a very worthwhile activity by most of the respondents. This can be gathered from the fact that in most cases about 50% of the respondents considered it to be productive, good or varied. The only exception is the extent to which pupils perceived it to be pleasant. In this instance more than 40% were either uncertain or considered it an unpleasant activity. It is also interesting to note that the 17.1% who considered fieldwork to be very varied was the lowest recorded response to the positive statements. This would tend to raise questions about how fieldwork was organised in the various schools and to what extent fieldwork is understood.

(LEDGER, 1978)

FIG.1 TEACHING STRATEGIES: A MODEL FOR
"NEW" GEOGRAPHY TEACHING IN SOUTH AFRICA



4.7.5 STUDYING ABOUT OTHER PEOPLE

The study attempted to assess pupils' attitudes about the study of other peoples. This was an attempt to find support to question 37 which assessed pupils attitudes on whether the Geography syllabus ought to be based on the local environment. In section 4.4 it was noted that there is strong support for this viewpoint. One would therefore expect that pupils would have negative viewpoints about studying about other peoples. Questions 96 to 104 (Appendix A) were designed to assess this contention. The summary of responses to these questions is provided in table 4.10 below.

Table 4.10 : Percentage Distribution of Pupils Attitudes Towards Studying About Other Peoples

Productive	31.6	25.6	10.7	14.5	17.9	Unproductive
Varied	21.8	35.0	19.7	13.7	9.8	Repetitive
Pleasant	30.8	24.4	19.2	16.7	9.0	Unpleasant
Good	28.2	30.8	10.3	16.2	14.5	Bad
Nice	35.9	18.4	18.4	14.1	13.2	Awful
Satisfying	19.2	32.1	17.5	19.7	11.5	Frustrating
Comfortable	26.1	32.1	14.1	17.5	10.3	Uncomfortable
Valuable	26.1	29.9	15.0	17.9	11.1	Valueless
Enjoyable	30.8	22.2	15.0	10.3	21.6	Unenjoyable

Source: Field Survey, 1991

From the results it can be deduced that studying about other peoples is considered to be productive, varied, pleasant, good, comfortable, and nice. In each of these cases at least 50% of the respondents felt that way. The picture is however more mixed in the rest of the cases. It ranges from an almost even spread between enjoyable and unenjoyable to a high proportion of respondents (44%) who were either uncertain or considered this activity as valueless. This pattern is different from previous ones in which the responses were more uniform towards the positive side. In general, one can conclude that the results would tend to collaborate the

results in question 37. This raises further questions regarding the perceived relevance of the syllabus statements in the lower standards.

4.8 Geography and Other Disciplines

In an attempt to find how pupils viewed Geography in relation to other subjects, the last part of the questionnaire (Appendix A) asked respondents to tick their assessment of selected school disciplines in terms of such criteria as most useful, useful, of little use and useless. The disciplines involved were randomly selected subjects but included the most popular electives available at the majority of Transkei schools. Their responses are recorded on table 4.11 below.

Table 4.11 : Percentage Distribution of Responses Towards the Usefulness of Geography in Relation to some Selected Subjects

Subject	M. Useful	V. Useful	Useful	Lit. Use	Useless
Biology	44	30.8	20.1	3.8	1.3
History	25.2	19.2	29.9	13.7	12
Maths	32.9	33.8	15.4	6.8	11.1
Phy. Sc.	27	39.9	15.9	7.7	9.9
Geography	61.1	16.2	14.1	4.7	3.8

Field Survey, 1991

The results reveals that Geography is viewed as a very useful subject in relation to the subjects selected as 77.3% of the respondents indicated that they found this subject to be the most useful, with Biology as the second most useful subject. However, if the observations from this table are compared with the 60.4% of the respondents who noted that there were more important things to learn than Geography, one can only conclude that the results in this table can be accepted only in relation to the subjects selected.

Summary

The group results analysed according to the group totals presents a generally positive view of Geography by the respondents. It indicates that the majority of the respondents:

- (1) desired to study Geography;
- (2) found Geography a useful subject to study;
- (3) had a great deal of interest in Geography;
- (4) were committed to Geography;
- (5) and were favourably disposed to learning the various areas of the discipline.

These results, however, obscure a number of negative sentiments that were expressed. It is important to examine these negative sentiments if only to understand the reasons behind the attitudes expressed. The next chapter thus explores this aspect of the research by looking at within group differences so that the population group expressing these negative sentiments are identified. The identification of these groups would help to isolate the factors influencing such attitudes.

Chapter Five

PUPILS' ATTITUDES TO GEOGRAPHY: WITHIN GROUP DIFFERENCES

Introduction

The previous chapter was devoted to presenting an account of the attitudes expressed by the respondents to the discipline without considering within group differences or their effect on the general results. Thus in spite of positive attitudes recorded towards the discipline, it was noted that several negative sentiments also existed. In order to reveal more about these, a statistical test of significance (chi-square test) was applied to the responses given by different categories of the respondents. The respondents were grouped according to criteria identified in section A of the questionnaire. It was intended that through these analyses some of the factors underlying pupil attitudes would be established.

Analysis of the subsets identified within the group reveals that they can be considered in relation to socio-economic factors as well as factors pertaining to the school environment, with the former being the most numerous. The analyses of the within group differences in this chapter is presented according to these two broad categories.

5.1 Socio-Economic Factors

The socio-economic factors that were found to be most important are the residential location of respondents, the extent of parental education, the amount of parental help, the extent to which the respondents are exposed to television, listening to the radio news and newspapers.

5.1.1 RESPONDENTS GROUPED ACCORDING TO SCHOOL LOCATION

According to Thomas (1985) one of the most important factors that underlie socio-economic differences in Transkei is whether one happens to be an urban or a rural resident. Several reasons account for this. There is, for instance, the fact that urban residents earn more than rural residents and have more modern facilities than rural residents. The results of the chisquare test reveal that there were some differences in the perceptions and attitudes of pupils towards Geography as a result of their place of residence. From the examination of the results it was observed that statistically significant differences existed between rural and urban respondents in the responses to 19 out of the 62 items in the questionnaire (Table 5.1 below).

Table 5.1 : Significant Differences in Attitudes Towards Geography as a Result of the Location of Respondents

Item	P-value
19	.0019
22	.0000
27	.0043
30	.0005
33	.0001
38	.0003
45	.0000
47	.0004
58	.0001
60	.0047
72	.0018
90	.0097
91	.0016
95	.0050
100	.0061

Source: Field Survey, 1991

5.1.1.1 *Residential Location and the Reasons for Studying Geography*

An analysis of the results reveals that the majority of the rural respondents indicated that they were studying Geography because there was no other option in their school. These pupils also indicated that their parents were happy that they were studying the discipline.

However, contrasting these results against the fact that about half (49.7%) of the rural respondents have parents who have had education only to the primary school level, further evidence is lent to the assertion that their parents were more interested in their children receiving some education rather than with a specific interest in Geography per se.

5.1.1.2 *School Location and the Desire to Study Geography*

Items 27 and 30 concerning the pupils' perceptions of Geography textbooks in terms of their readability and of Geography in terms of its perceived degree of abstraction was used as part of the analysis to assess Transkei pupils' desire to study Geography. In both significant statistical differences were recorded in the responses from rural and urban respondents. The results indicated that rural pupils reacted more favourably than urban pupils with respect to these two items.

5.1.1.3 *School Location and the Utility of Geography*

With respect to the responses gathered on the perceived usefulness of Geography, only two items (items 33 and 38) were recorded as being

statistically significant. With respect to item 33 (knowing Geography will help me to get a job I like) 57.4% and 56.9% of those who either strongly agreed or agreed respectively with the statement came from the rural area. However 90.8% of the undecided cases were also rural respondents.

Item 38 sought pupils' responses to whether there are more useful things to learn than Geography. An examination of the results reveals that 82.8% of the 40.3% who agreed to this suggestion came from the rural areas. 56.5% of those who strongly agreed to this suggestion also came from the rural areas. Rural pupils also indicated a greater degree of indecision than urban pupils. In this case, therefore, the results show mixed signals indicating in one case (33) a positive attitude from the rural area and the other (38) a negative one.

5.1.1.4 School Location and One's Interest in Geography

In terms of interest in Geography, two statistically significant differences were recorded in the responses between rural and urban respondents. These relate to items 45 and 47. In both cases rural residents either strongly agreed or agreed with the statements.

5.1.1.5 School Location and Commitment to Geography

Only one statistically significant difference was recorded in attitudes between rural and urban respondents regarding their commitment to Geography. This relates to item 58 (I hate reading Geography textbooks). In this instance an examination of the results indicate that 82.1% of those who disagreed with this suggestion came from the rural areas.

5.1.1.6 School Location and Attitudes Towards

Specific Areas of Geography

Six differences were recorded in the responses between rural and urban residents with respect to aspects of Geography. In all the cases rural residents perceived a need for and had a greater interest in studying the discipline than the urban respondents. For instance, 77% of the pupils considered learning physical Geography a "very productive" activity. Similarly 79.5% of them found mapwork a "good activity".

In view of the small number of differences (19 out of 62 items) not much can be read into these results. However, it can be noted that some differences exist with regard to the way in which urban and rural school pupils perceive Geography.

5.1.2 PUPILS' ATTITUDES TO GEOGRAPHY AND MODE OF TRAVELLING TO SCHOOL

Mode of travelling to school is a socio-economic index. Those who are driven to school are normally from a higher income family where often the parents are well educated. They can also afford better schools and are able to buy the necessary educational materials for their children. The assumption is therefore that such children will be more highly motivated to do well at school. Their attitudes towards school subjects are likely to be related to their ambitions in life. In relation to this item the table below summarises the various modes through which the respondents travel to school.

Table 5.2 : Percentage Distribution of the Mode of Travelling to School

Mode	%
Foot	73.8
Bus	13.3
Taxi	8.2
Bicycle	2.6
Car	2.1

Source: Field Survey, 1991

The table above indicates that the majority of the respondents walk to school. Only three significant differences (out of 62 items) were noted in the responses that were related to the mode of travel to school. The specified items are noted below.

Table 5.3 : Significant Differences in Responses Attributed to Mode of Travelling to School

Items	P Value
41	.0002
43	.0069
59	.0028

Source: Field Survey, 1991

The summary of responses reveals a mixture of both negative and positive attitudes to the discipline. For instance, while 80% of those who go to school by car strongly agree that Geography lessons are interesting (item 41) only 49.7% of those who walk to school supported the statement. On the other hand while 80% of those who go by car strongly agree that there is nothing new to study in Geography, 42.8% of those who walk either disagreed or strongly disagreed with the statement. The conclusion drawn from these results do not therefore point to a specific relationship between mode of travelling to school and attitudes towards Geography. This is partly because of the few differences (3 out of 62) as well as the inconclusive nature of the results.

5.1.3 RESPONDENTS GROUPED ACCORDING TO PARENTAL EDUCATION

The level of education of the head of the family is an important socio-economic index. It is related to one's ability to provide parental help when needed and to providing sufficient motivation for pupils to aspire to certain levels. The table below summarises the level of parental education of the respondents.

Table 5.4 Percentage Distribution of Level of Education of Head Among Respondents

Standard Attained	Frequency
None	5.1
Primary	34.2
STD. 8	28.6
Matric	13.7
Post Matric	4.7
University Education	13.7
Total	100

Source: Field Survey, 1991

The analysis of the results from the study reveals that there were significant differences in the responses to 17 of the items. The various items for which significant differences were recorded are listed below.

Table 5.5 : Significant Differences Recorded in Responses Attributed to Differences in Level of Education of Head of Family

Item	P Value
33	.0000
38	.0034
41	.0040
45	.0037
57	.0009
58	.0020
59	.0014
66	.0012
69	.0017
72	.0035
77	.0007
83	.0011
84	.0018
86	.0001

Table 5.5 Cont.	87	.0071
	95	.0035
	101	.0000

Source: Field Survey, 1991

5.1.3.1 Level of Parental Education and the Perceived Utility of Geography

Two items in this section provided significant differences in the responses between pupils with parents having a high level of education and those whose parents have very little formal education. These are items 33 and 38 as indicated on the table. In general, respondents with parents having a high level of education tended to perceive Geography to be more useful than those with parents having very little education.

5.1.4 ATTITUDES TO GEOGRAPHY AND PARENTAL HELP

Parental help with school work is an important motivating factor for pupils. Statistically significant differences in responses which can be attributed to parental help were recorded in the items below.

Table 5.6 : Significant Differences in Responses
Attributed to Parental Help

<u>Item</u>	<u>P Value</u>
18	.0004
29	.0003
34	.0012
36	.0001
38	.0000
42	.0029
43	.0001
47	.0001
50	.0006
57	.0021
82	.0040

Source: Field Survey, 1991

The results are similar to those pertaining to the level of parental education. In relation to the items above, respondents having parents who were able to help them tended to perceive the discipline more positively than those whose parents did not offer them such help. The conclusion is understandable as the former will in all probability do well and therefore have a higher regard for the discipline (Raen, 1977).

5.1.5 WATCHING TELEVISION AND ATTITUDES TO GEOGRAPHY

In a discipline like Geography where distant regions are often studied with no visual aids, television is valuable. In this study, therefore, it was not surprising that a number of significant differences were found in attitudes between those who watched television often and those who did not. In this connection Table 5.7 below summarises the responses to the frequency with which pupils watched television.

Table 5.7 : Percentage Distribution of Television Watching

Frequency	Percentage
Regular	28.1
Sometimes	47.9
Seldom	9.9
Never	14.1
Total	100.0

Source: Field Survey, 1991

From the table, it can be deduced that the majority of the respondents only watched television sometimes. There were three statistically significant differences in the responses that can be attributed to television viewing.

Table 5.8 : Significant Differences in Responses
Attributed to Frequency of Watching Television

Item	P-value
43	.0005
49	.0024
66	.0007

Source: Field Survey, 1991

5.1.5.1 *Television Viewing and One's Interest in Geography*

From the examination of the results it can be observed that with respect to these three items those who watched television more often did not have as much interest in Geography as those who never watched television. For instance, 56.9% of those who disagreed with the suggestion that Geography was too difficult were those who only sometimes or never watched television. Similarly 70.7% of those who only watched television sometimes felt comfortable with studying Physical Geography. Those who felt very uncomfortable with learning Physical Geography were made up of 42.9% regular television viewers, 23.8% who watched television sometimes, 14.3% who seldom watched television, and 19% who never watched television.

5.1.6 LISTENING TO THE RADIO NEWS AND ATTITUDES TOWARDS GEOGRAPHY

Access to the radio is another socio-economic index. Pupils from middle and high income families have more access to radios than those from low income families. Listening to the news on radio is considered to have educational value for Geography. The table below summarises the percentage distribution of the frequency with which respondents listened to the radio news.

Table 5.9 : Frequency of Listening to the Radio News

Frequency	Percentage
Regular	43.7
Sometimes	47.4
Seldom	7.8
Never	1.0
Total	100.0

Source: Field Survey, 1991

Examination of the data gathered reveals that in five cases there were significant differences in the answers provided by those who listened to the radio news and those who did not. The table below lists these.

Table 5.10 : Significant Differences in Responses Attributed to the Frequency of Listening to the Radio News

Item	P-value
32	.0050
61	.0045
71	.0001
78	.0084
82	.0094

Source: Field Survey, 1991

5.1.6.1 *Listening to Radio News and the Perceived Utility of Geography*

While the previous chapter has revealed that most of the respondents expressed positive sentiments about the usefulness of Geography, an examination of the data reveals that the majority who did so either sometimes listened to the radio news or never did. The results of this data would therefore support the conclusion that those who listened regularly to the radio news were of the opinion that Geography would not be useful to them after school.

**5.1.6.2 *Listening to the Radio news and Attitudes
Towards Physical Geography***

The results above were similar to those obtained for the attitudes towards Physical Geography. In this case those who listened to the radio news regularly were more negative in their perceptions of Physical Geography than those who did not. For instance, while the majority of the respondents felt the teaching of Physical Geography was varied (42.3%) 68.6% of this number only listened to the radio news sometimes. While 66.7% and 50% of those who perceived Physical Geography to be repetitive, or very repetitive, respectively listened to the radio news regularly.

**5.1.6.3 *Listening to the Radio News and Attitudes
Towards Mapwork***

In the case of mapwork, the majority of pupils who responded positively to mapwork only listened to the radio news sometimes or never. However, for item 77, 65.4% of the pupils who considered mapwork lessons as enjoyable also listened to the radio news regularly. In this case, therefore, there was a positive reaction from those who listened to the radio news regularly.

**5.1.6.4 *Listening to the Radio News and Attitudes
Towards Settlement Geography Lessons***

In item 78 more of the respondents who believed that learning Settlement Geography is a very productive activity listened regularly to the radio news. Of those who felt it was unproductive, 50% sometimes listened to the

radio news. A different result was obtained in item 82 (chi-square .0011). In this instance, 67.1% of the respondents who felt it was nice to learn Settlement Geography only listened to the radio news sometimes. 52.6% of those who perceived Settlement Geography negatively listened regularly to the radio news. The view expressed here is therefore mixed.

5.1.7 ATTITUDES TO GEOGRAPHY AND NEWSPAPER READING

The items providing the majority of significant differences in the responses was the frequency with which newspapers were read. The differences in responses between those who read newspapers frequently and those who seldom or never did number 57 out of the 62 items in the questionnaire. The summary of newspaper reading habits is provided below:

Table 5.11 : Percentage Distribution of Newspaper Reading Habits

<u>Frequency</u>	<u>Percentage</u>
Daily	19
Once a Week	20
Seldom	47
Never	14

Source: Field Survey, 1991

The list of items for which significant differences in the responses were obtained is given below.

Table 5.12 : Significant Differences in Responses Attributable to Newspaper Reading

<u>Item</u>	<u>P Value</u>
18	.0073
19	.0071
20	.0021
21	.0000
22	.0001
24	.0057
31	.0002

Table 5.12 Cont.

32	.0060
33	.0000
34	.0002
35	.0062
36	.0024
38	.0003
39	.0001
40	.0000
41	.0014
42	.0000
43	.0000
44	.0075
45	.0000
48	.0001
49	.0043
50	.0005
51	.0018
54	.0003
55	.0067
57	.0004
58	.0000
59	.0000
64	.0004
66	.0010
69	.0000
72	.0042
73	.0001
74	.0000
75	.0000
77	.0002
78	.0028
79	.0057
81	.0011
82	.0000
85	.0093
86	.0002
87	.0000
88	.0055
90	.0096
91	.0038
93	.0041
94	.0042
95	.0056
96	.0001
97	.0013
99	.0000
100	.0000
101	.0000
102	.0071
104	.0002

Source: Field Survey, 1991

The results indicate that pupils' exposure to newspapers is the most important factor that accounts for differences in attitudes among the factors considered so far.

An analyses of the results indicates that in all cases those who either never read newspapers or only seldom did, often had a more positive view of Geography than those who did. It would seem that this is the major factor that influences the pupils' perceptions of Geography.

5.2 Factors Relating to the School Environment

The chi-square test indicated that two factors relating to the school environment elicited responses which were significantly different in terms of the subsets into which the pupils were grouped. These are the number of years the pupils had been studying Geography, and their involvement in Geography excursions.

5.2.1 PUPILS' ATTITUDES AND LENGTH OF TIME STUDYING GEOGRAPHY

Based on the responses to question three of the questionnaire, the respondents were grouped according to the length of time they had spent studying Geography. The table below provides a summary of the responses.

Table 5.13 Percentage Distribution of the Length of Time
Respondents Have Spent Studying Geography

Period	Percentage of Respondents
1	42.5
2	18.0
3	3.4
4	3.4

Table 5.13 Cont.

5	4.3
6	6.0
7	3.9
8	3.0
9	6.0
10	6.4
11	0.9
13	1.3
15	0.9
TOTAL	100.0

Source: Field Survey, 1991

The table above reveals that most of the respondents are studying Geography either for the first time or are in their second year of study in a secondary school. The table below summarises the statistically significant differences in the responses between those who have studied Geography for some time and those who have not.

Table 5.14 : Significant Differences in the Responses Attributed to the Length of time Spent Studying Geography

Item	P Value
22	.0006
33	.0000
39	.0058
41	.0039
42	.0034
44	.0090
45	.0040
59	.0037
96	.0046
101	.0050

Source: Field Survey, 1991

From the table it can be deduced that there are 10 significant differences in the pupils' attitudes attributed to the length of time they have spent studying Geography. These results reveal that in relation to the items listed, pupils who have had a longer exposure to the subject viewed it more negatively than the pupils who have had less exposure to Geography. For instance, 50% of those who agreed that knowing Geography would help them

find a job had been studying Geography for only one year. Similarly 48% of those who held the view that studying about other peoples is very productive (item 96) had only been studying Geography for the past one year.

A related item to the length of time spent studying Geography is the age of the respondents. In terms of age, however, only one item was statistically significant. This relates to item 21. An analysis of the results reveals that pupils who study Geography in their schools because there is no other option are concentrated in the age groups 15 to 19. The younger (13 and under) and the older pupils (more than 20) attended schools where they had more freedom in their choice of subjects.

5.2.2 ATTITUDES TO GEOGRAPHY AND GEOGRAPHY EXCURSIONS

In examining the responses, it was discovered that there were 18 statistically significant differences in the way in which pupils' attitudes to Geography differed as a result of attendance at a Geography excursion. In this connection table 5.18 summarises the percentage distribution of pupils who have been or have not been on a Geography excursion.

Table 5.15 : Percentage Distribution of Attendance at a Geography Excursion

Response	Percentage
Yes	58.5
No	41.5

Source: Field Survey, 1991

The items for which statistically significant differences were found in the responses are listed below.

Table 5.16 : Significant Differences in Responses
Attributed to Exposure to Geography Excursions

<u>Item</u>	<u>P Value</u>
24	.0001
26	.0043
29	.0002
32	.0057
33	.0001
34	.0088
37	.0003
38	.0002
39	.0010
45	.0001
46	.0029
48	.0029
50	.0090
58	.0092
65	.0060
74	.0083
78	.0089
101	.0053

Source: Field Survey, 1991

While there are comparatively fewer differences (18 out of 62) than was the case with the frequency of newspaper reading, it is significant to note that with regard to excursions, the results indicate that pupils who have been on a Geography excursion view Geography more positively than those who have not, as indicated below.

5.2.3 GEOGRAPHY EXCURSIONS AND THE DESIRE TO STUDY GEOGRAPHY

With respect to the series of questions related to the desire to study Geography, there were significant differences in answers to three of the questions. In these three cases an examination of the results indicates that those who had been on a Geography excursion have a more favourable view of the discipline than those who had not.

5.2.4 GEOGRAPHY EXCURSIONS AND ATTITUDES TOWARDS THE UTILITY OF GEOGRAPHY

From the observations made, it is possible to conclude that, with the possible exception of item 38, this study has revealed that pupils who have been on a Geography excursion have a favourable view of the discipline than those who have not. In the case of item 38, 75.3% of those who believe that there are more useful things to learn than Geography had been on a Geography excursion before. Indeed 82.5% of those who disagreed with this suggestion have never been on a Geography excursion before. In this regard, therefore, the conclusion can be drawn that more of those who have been on a Geography excursion believe that there are more important things to learn than Geography compared with those who have not.

5.2.5 GEOGRAPHY EXCURSIONS AND INTEREST IN GEOGRAPHY

An examination of the results of the four statistically significant differences once more bring into focus the fact that Geography excursion are an important means of building positive attitudes to Geography. These four items indicate that pupils who have been on a Geography excursion have better attitude towards Geography than those who have not been. They all consider it desirable for one to study Geography.

5.2.6 GEOGRAPHY EXCURSIONS AND ATTITUDES TOWARDS AREAS OF GEOGRAPHY

The semantic differential technique recorded four major differences in the responses to the various areas of study of the discipline. The first was

recorded for item 65. Considering the fact that the abstract nature of Physical Geography is made real with an excursion to the field, it was not surprising that 71.6% of the pupils who felt this to be the case had been on a Geography excursion before. It is noteworthy that 64.7% of the 14.6% who were undecided had never been on a Geography excursion trip before.

With regard to the pupils' attitudes towards mapwork, it is noted that while most of the responses considered it to be a satisfying activity (36.5%), 70.6% of this number had been on a Geography excursion before. 59.4% and 58.8% of those who felt it to be frustrating or very frustrating, respectively, had never been on a Geography excursion before.

In the analysis of the pupils' attitudes towards learning settlement Geography 53.6% of the majority (38.9%) who felt it to be a very productive activity had not been on a Geography excursion before. On the negative side 85% and 60.7% respectively of those who believed studies related to Settlement Geography were either unproductive or very unproductive have all attended a Geography excursion before.

The previous chapter noted that while most respondents felt learning about other peoples was a satisfying activity, there were some negative sentiments in the overall picture. Part of the negative trends can be ascribed to the differences in the responses from those who have been on a Geography excursion before and those who have not. The results indicate that 76% of the majority 32.1% who felt this to be a satisfying activity have been on a Geography excursion before. 52.2% of those who felt that learning about other people was a frustrating activity had never been on a Geography excursion before. Overall it can be noted that with the possible

exception of learning about other peoples, pupils who have been on a Geography excursion had more positive attitudes towards the various aspects of the Geography syllabus than those who have not.

Summary

The examination of the within group differences has revealed that differences in attitudes towards Geography can be grouped into two categories. These are factors associated with the school environment and those relating to the socio-economic environment. These factors can also be divided into those which influence pupils to develop negative attitudes to Geography (urban residence, watching television, listening to the radio news, newspaper reading, and spending more time studying Geography), those that influence pupils to develop positive attitudes to Geography (rural residence, level of parental education, parental help and attendance at a Geography excursion) and in one case (mode of travelling to school) reactions were mixed. This analysis, however, does not identify the relative importance of each of these factors. It is therefore impossible to state with any degree of certainty the most important factor(s) influencing attitudes to Geography. The next chapter therefore attempts to assess the contribution of each of the factors to the attitudes expressed and through that to identify the main factors that influence attitudes to Geography among the respondents.

Chapter Six

PUPILS' ATTITUDES TOWARDS GEOGRAPHY: THE SIGNIFICANT FACTORS

Introduction

The previous chapter has revealed both positive and negative sentiments about Geography with respect to the various population groups. The analysis presented, however, only isolated the within group differences without assessing the factors influencing the attitudes expressed. In this chapter therefore the attitudinal responses are grouped using principal component analysis. In this way the composition of each range of attitudes is assessed and their contribution to the sum of attitudinal responses calculated. The analysis is done in such a way as to reveal the major factors influencing attitudes towards Geography. Through this technique it is also intended to reveal the underlying trends affecting the attitudinal positions expressed. The application of principal component analysis in this research is further employed to help reduce information to provide a more coherent analysis of the data.

6.1 Principal Component Analysis

The results of the principal component analysis indicate that twelve factors account for more than 71% of the variation. This would tend to imply that variations in attitudes towards Geography and their underlying factors could be summarised in 12 groups. The principal component analysis has thus enabled the grouping of the factors to be achieved in such a way that instead of 264 X 62 individual scores there are now 12 factors to

contend with. The 12 factors and the proportion of the variance explained by each are listed below.

Table 6.1 : Contributions of the Main Factors Factor
Cumulative Proportion of Variance %

	<u>in Data Space</u>
1	20.55
2	29.31
3	35.83
4	40.76
5	45.43
6	49.59
7	53.57
8	57.32
9	60.87
10	64.29
11	67.62
12	70.72

Source: Field Survey, 1991

6.2 Deriving the Factors

To ensure a proper facilitation or labelling of the factors, varimax rotation was employed. The factors derived were therefore independent factors accounting for the variations in the attitudinal positions outlined. To present a more detailed picture of the twelve factors and their associated variables, the matrix of factor loadings is labelled and considered in more detail.

6.3 Naming the Factors

The naming or labelling of the factors constitutes the next most important step in the analysis of the data to achieve the objectives set for this chapter. In using the technique of principal component analysis to construct an index, the first factor is the best transformation or

reflection since it contributes a maximum to the total variance. In this connection factor one is of key importance since it constitutes 20.75% of the total variance. Table 6.3 below presents the questions associated with factor one. Only questions with values above ± 0.5 (being the most important) are considered.

Table 6.2 Loading Associated with Factor 1

Item	Loading
I would like to Study Geo in the University	0.832
Next Year I would Like to Continue with Geo	0.806
I would like to make Friends with some young People who study Geography	0.570

Source : Field Survey, 1991

An examination of the variables associated with this factor indicates that the three items contributed high positive values to this factor. The factors together summarise commitment to Geography. The analysis in chapter four indicated that commitment to Geography contains both positive and negative elements. The major factor underlying the attitudinal positions expressed reflect different positions taken by different population groups. The population group contributing high positive values in this case is that which does not read newspapers regularly. This factor is therefore referred to as "newspaper factor 1". Below are the factor loadings for factor two.

Table 6.3 : Loading Associated With Factor 2

Item	Loading
I hate Reading Geography Textbooks	0.783
I want to end my Geography lessons this year	0.598
The problem with Geography is that it is Uninteresting	0.515

Source: Field Survey, 1991

The second factor only contributes 6.52% to the variance. The variables associated with this factor are negative. These factors relate to "lack of interest" in Geography. High negative values are contributed to this factor mostly by those who have never gone on Geography excursions before. This factor is therefore labelled the "Geography excursions factor". Geography excursions therefore are a major factor underlying attitudes to Geography.

Table 6.4 Loadings Associated with Factor 3

Item	Loadings
Geography will be useful to me after I leave school	0.710
If I were to choose I would prefer more Geography periods than any other subject	0.631

Source: Field Survey, 1991

The third factor also contributes 6.5% to the variance explained. The factors relate to "subject utility". As indicated in Chapter Four positive attitudes were expressed about this factor. In the case of factor three, high positive values are contributed by respondents from the rural areas. This factor is therefore referred to as the "rural factor".

Table 6.5 : Loadings Associated with Factor 4

Item	Loadings
Geography is a Creative Subject	0.816
My Parents are glad that I am Studying Geography	0.536
Learning Geography has more Prestige than Learning other Subjects	0.519

Source : Field Survey, 1991

An examination of the items in factor four indicate that they are all positive items. The factor as a whole contributes 4.93% of the variance. These factors are related to "subject interest". The high positive values

contributed to this factor are contributed by pupils having parents with a high level of education. This factor is thus labelled "Parental Education Factor". As noted in Chapter Four, pupils indicated a high degree of positive attitudes in terms of interest in Geography. Parental education is, therefore, a relatively important factor affecting interest in Geography.

Table : 6.6 : Loadings Associated with Factor 5

Item	Loadings
The only job available to people who learn Geography is Teaching	0.787
Knowing Geography is only important in the classroom	0.685

Source: Field Survey, 1991

Only three loadings are greater than ± 0.5 in this factor. The factor as a whole contributes 4.67% to the variance. The items in this factor are all negative and are related to subject usefulness. The population group contributing high positive values to this factor are those who listen to the radio news regularly. This factor is thus labelled "Radio News Factor".

Table 6.7 : Loadings Associated with Factor 6

Item	Loadings
Learning Geography enables us to know the world around us	0.870
There are many jobs that need a person with a knowledge of Geography	0.552

Source: Field Survey, 1991

Factor 6 contributed 4.16% of the variance. There were only two items with factor loadings greater than ± 0.5 in this case. The two factors are both

positive and are related to the use of Geographical knowledge. The major contribution to this factor is related to how often respondents watched television. Those watching television more often contributed more positive values to this factor than the rest. This factor is therefore labelled the "T.V. Viewing Factor".

Table 6.8 : Loadings Associated with Factor 7

Item	Loadings
Geography lessons are interesting	0.691
Geography is too difficult for me	-0.571

Source: Field Survey, 1991

Factor seven only contributes 3.98% of the variance with two items. In this factor there is a mixed reaction with one item being positive and the other negative. The factor is related to subject difficulty. The population factor contributing high positive values is related to parental help. The same factor also contributes a high negative loading to the negative factor. This factor is therefore labelled "Parental Help Factor".

Table 6.9 : Loadings Associated with Factor 8

Item	Loadings
Knowing Geography will help me get a job I like	0.801

Source: Field Survey, 1991

Factor eight has only one item which is a positive one. The factor contributes 3.75% to the variance and is related to Geography and jobs. The major population factor accounting for this is the mode of travelling to school. Those travelling by car or taxi contributed more positive values than those who walked to school. This factor is thus labelled "Mode of Travelling to School Factor".

Table 6.10 : Loadings Associated with Factor Factor 9

Item	Loadings
My parents show no interest in what I am doing in Geography	0.904

Source : Field Survey, 1991

Only one negative item is represented in this factor. The factor contributes 3.55% to the variance and is related to parental interest. The factor contributing high positive values to this factor is related to parental education. This factor is therefore labelled the "Parental Education Factor 2".

Table 6.11 : Loadings Associated with Factor 10

Item	Loadings
There are more useful things to learn than Geography	0.863

Source: Field Survey, 1991

Only one item contributed more than ± 0.5 loading to this factor. The item in this factor is a negative one. The factor contributes 3.42% to the variance and the factor is related to the relationship between Geography and other subjects. The major population factor contributing high positive values to this factor is accounted for by the location of the school. Urban school pupils viewed other subjects as more important than Geography. This factor is therefore labelled the "Urban Factor".

Table 6.12 : Loadings Associated with Factor 11

Item	Loadings
There is nothing new to study in Geography	0.900

Source: Field Survey, 1991

This factor has only one item and it contributes 3.32% to the variance. The item is however negative and is related to subject matter. The major factor accounting for this is the length of time spent studying Geography. This factor is therefore labelled "Length of Time Factor".

Table 6.13 : Loadings Associated with Factor 12

Item	Loadings
The Geography syllabus involves too much work	0.901

Source: Field Survey, 1991

There is only one item in this factor and it contributes 3.1% to the variance. The item is a negative one and is related to the Geography curriculum. An examination of the results indicates that the high positive loading associated with this factor was contributed by the frequency of newspaper reading. The more often one read newspapers the more one felt that Geography involved too much work. This factor is thus labelled "Newspaper Factor 2".

6.4 The Major Factors Influencing Attitudes Towards Geography

From the above analysis it is possible to assess the contribution of each of the network of factors that influence attitudes to Geography and to identify the major ones.

The analysis carried out in the previous chapter has indicated that attitudes towards Geography are either positive or negative, depending on certain factors. While there are 12 such factors they can all be grouped

into two broad areas: school environmental factors and home environmental factors. The school environmental factors in this case are: Geography excursions factor and length of time factor. Home environmental factors are: rural factor, parental education factor, radio news factor, television viewing factor, mode of travelling to school factor, parental education factor 1 and 2, urban factor, and newspaper factor 1 and 2. In terms of variance contributed, school environmental conditions contribute a total of 9.84% of the attitudinal positions expressed. However, this percentage variance contributed is low and statistically insignificant.

Variance contributed by home environmental factors total 61%. It is therefore obvious that home environmental conditions are the major group of factors influencing attitudes towards Geography. Home environmental factors are however such that they serve to determine the income group from which an individual pupil comes. Those from the lower income groups stay in the rural area, have no access to radios or newspapers and have parents who have had little or no formal education. Pupils in this group viewed Geography in a positive light. Those from the middle and upper income groups have access to radios, newspapers, are driven to school in cars and attend school in the urban areas. Pupils from this group expressed negative attitudes towards Geography. Offsetting the negative sentiments of these pupils are Geography excursions, frequent attendance of which create positive attitudes to Geography.

The use of the principal component analysis has indicated that pupils' attitudes to Geography can be arranged in a hierarchy corresponding to the income position of an individual pupil and pupils from each income group have their own judgement about the worth of Geography. Any attempt to build

a positive image for Geography should therefore acknowledge this. It seems that the perceptions of the pupils from the lower income families can be seen in terms of social deprivation (which breeds ignorance) than in an accurate assessment of the worth of Geography. Discounting the "social deprivation factor", therefore, implies that attitudes towards Geography are negative. This would tend to explain why there are poor results and there is slower growth of numbers in Geography in relation to other disciplines studied in Transkei schools as was noted earlier on in Chapter One.

Chapter Seven

CONCLUSION

Introduction

This study devotes attention to examining the attitudes of pupils towards Geography and some of the factors influencing such attitudes. The analysis is achieved through the simultaneous consideration of pupils' attitudes, within group differences to such attitudes and the factors associated with the attitudes expressed.

The research was based on the fact that pupils' attitudes to Geography affect both attainment in the discipline and the enrolment of pupils in the discipline. While research has been done among the black population in South Africa to gauge pupils' perceptions of Geography (Ballantyne *op cit.*, Ledger, *op cit.*), no such study employing the techniques utilised in this research exists for Transkei. This is in spite of evidence of poor attainment and a slower growth rate in pupil numbers in relation to other subjects studied in the school curriculum. This study, however, attempts to do more than to identify pupils' attitudes to the discipline, because it also attempts to isolate the factors which influence pupils' attitudes to Geography. The results highlight the facts below:

7.1 Summary of Findings

7.1.1 ATTITUDES AND THE GROWTH OF SUBJECTS

This study indicates that pupils' attitudes towards a discipline tend to affect the growth of the discipline. Where the attitudes are predominantly positive, the subject grows in terms of the numbers of pupils who offer to study it. Similarly, positive attitudes towards a discipline tend to improve the performance of pupils in that discipline. Negative attitudes, however, tend to produce poor results and a drop in pupil numbers. The study has revealed a similar trend in Transkei where attainment in Geography is low and subject growth slower in Geography than some other subjects. In such a case some attitudes towards Geography were found to be negative.

7.1.2 ELECTIVE SUBJECTS

The study identifies the fact that Geography is offered as an elective subject in many schools in Transkei. Therefore, there tended to be a large degree of teacher influence on pupils' choice of Geography.

7.1.3 GROUP RESULTS

The initial analysis of the group totals indicates the fact that, generally, a positive view is held about Geography in spite of the poor attainments in the discipline and the fact that it is offered as an elective subject in many schools.

7.1.4 DIFFERENCES IN ATTITUDES

The research reveals that there were specific differences in attitudes towards Geography that could be attributed to certain characteristics among the respondent population. The application of the chi-square test to the group results allows the factors which influence group differences to be highlighted in terms broadly of socio-economic factors and school environmental factors. The isolation of specific attitudinal shifts relating to the different groups and the ability to identify several factors influencing these, serve to fully indicate what the underlying factors are that play the most important role in the expressed attitudes.

7.1.5 PRINCIPAL COMPONENT ANALYSIS

The use of the technique of principal component analysis identifies twelve factors influencing pupils attitudes towards Geography. These factors are scaled and the major ones identified. These factors include Geography excursions, length of time spent studying Geography, parental education, television viewing, etc. By far the most important factor, however, is the influence of newspaper reading on pupils' attitudes. The value of the principal component analysis is, therefore, that it helped to define and assess the contributions of the factors which tended to influence positive or negative attitudes to Geography.

Arising from the results indicated above the following conclusions are drawn from the study:

7.2 Conclusions Drawn

(1) Socio-economic factors are important in determining attitudes to Geography. Pupils who come from lower income groups tend to be more positive about the worth of Geography while pupils from the high and middle income groups are influenced, in particular, by their exposure to newspaper reading, which tends to reduce their perceptions of the value of Geography. The negative perceptions of Geography which apparently results from newspaper reading is also supported by television viewing. Pupils from the middle and high income groups, who have parents who can help them with school work, generally also have a more positive view of the subject than those pupils whose parents are poorly educated and cannot help them with their school work.

(2) Factors in the school environment that influence attitude are seen to be the pupils' exposure to Geography excursions and the length of time they have spent studying the discipline.

7.3 Recommendations

The results of this study ought to create an awareness among teachers of the factors which affect pupils' perceptions of the subject and the problems that arise from pupils' perceptions of the discipline. This awareness also needs to be worked upon by teachers. Teachers, therefore, have a duty to work consciously towards developing positive attitudes about the subject by making pupils realise its utility in terms of both tertiary study and for looking for a job. Teachers also need to develop pupils' skills related to critical analysis and evaluation so that they are able to

interpret and understand the factors which change the world. The same awareness must exist among textbook writers, curriculum planners, and the organisers of in-service courses and teacher training programmes to the factors influencing pupils' attitudes towards Geography. While it is accepted that the adoption of an attitude is but one of the factors that influence behaviour the conclusions of this research gives some cause for concern. In the understanding that people's attitudes can change, the following specific recommendations are made in addition to the above to ensure that the discipline is given a better image among Transkei pupils.

7.3.1 SOCIO-ECONOMIC FACTORS AND ATTITUDES TO GEOGRAPHY

The study reveals that perceptions about Geography are determined - or at least co-determined - by socio-economic conditions. While the pupils from the lower income groups would tend to perceive Geography in a more positive light, this does not preclude the need to improve the discipline's image if only to the pupils from the middle and higher income groups. This is more so because it would seem that the perceptions of the pupils from the lower income groups are clouded more by their social deprivation than by a genuine positive attitude towards the discipline. Factors identified in this study such as parental help and level of parental education are useful besides teacher efforts in the need to improve pupils' attitudes. It therefore becomes the duty of educationists to make governmental functionaries aware of these issues.

7.3.2 SYLLABUS DESIGN

One of the major findings of this research is that pupils would rather have the Geography syllabus based on the local environment and that to them there is a need to prune the syllabus as it presently involves "too much work". These findings would tend to suggest that there is considerable room to effect changes in the syllabus. While recognising the need to rewrite the syllabus in the light of these conclusions, it is not suggested that market forces (as indicated by the perceptions of pupils) should be the only consideration in syllabus design. The need is to effect syllabus changes through examining all issues, among which are pupils' perceptions of the discipline. Teachers also need to adapt the syllabus to the needs of their pupils.

7.3.3 LENGTH OF TIME SPENT STUDYING GEOGRAPHY

One significant finding of this research has been that pupils who have been studying Geography for a shorter time seem to like the discipline better than those who have spent a longer time gaining mastery of it. This finding is at variance with what it should be. If teaching styles are varied and teaching materials carefully selected, there is no reason why the perceptions of Geography should not improve as one studies it over a longer period of time. Geography teachers, therefore, ought to acknowledge this by examining and seeking improvement in their teaching styles and by employing more effective teaching aids.

7.3.4 GEOGRAPHY EXCURSIONS

The importance of Geography excursions has been raised in many studies (Levy, 1984). This study has also corroborated this finding as a useful vehicle towards the improvement of pupils' perception of Geography. Geography teachers ought to make school authorities aware of this fact and to urge that it be made an important part of Geography education.

7.4 Future Areas of Research

7.4.1 RELATIONSHIP BETWEEN PUPILS' PERCEPTIONS AND SOCIO-ECONOMIC CONDITIONS

This study has revealed that there are interesting relationships between pupils' perceptions of their school disciplines and their socio-economic conditions. The nature of the relationship has been indicated for the Geography discipline. There is a need to build on this and to examine the relationship between socio-economic conditions and pupils' perceptions of other disciplines. This will serve to increase understanding and be useful to teachers in the design of their teaching techniques, etc. Such a study can be viewed as an extension of this one.

7.4.2 THE NEWSPAPER FACTOR IN ATTITUDES TOWARDS GEOGRAPHY

One major finding of this research has been the fact that the frequency of newspaper reading has a major influence on the role pupils perceive of Geography. The factors responsible for these were, however, not examined in

this research and would seem to be an important area for further research. Such a work can be regarded as an extension to this one.

7.4.3 ATTITUDES TOWARDS OTHER DISCIPLINES

The results of this study indicate a need to examine the perceptions of pupils towards other disciplines in the school curriculum. The results of such studies would be helpful in syllabus design, teaching methods, etc.

Conclusion

The purpose of this study was to investigate through the use of a questionnaire the attitudes of selected Junior and Senior Secondary school pupils in Transkei towards Geography. The results suggest that the hypothesis that pupils' attitudes would be negative does not appear to hold. Pupils in general held positive views about Geography. The results also indicate that the attitudes held are related to the socio-economic background of the respondents and to the school environmental conditions. The results of the study hold major implications for teachers, educational planners and supervisors and to the organisers of in-service courses for teachers. Teachers could, for instance, use the techniques utilised in this research to determine the perceptions of their pupils towards any discipline or a particular topic or concept. Educational planners and in-service organisers should also encourage teachers to use the approach and the conclusions of this research to evaluate critically their pupils' understanding of a particular concept or topic.

LIST OF REFERENCES

- Allen, T.N (1980) An Investigation into Student Opinion Concerning Aspects of 6th Form Human Geography. Unpublished M.A. Thesis, University of London: London.
- Ausubel, D.P., Novak, J.D. and Hanesian, H. (1978) Educational Psychology: A Cognitive View 2nd Edition. Holt Rinehart and Winston: New York.
- Bailey, (1974) Teaching Geography, Teaching Series, David and Charles: London.
- Ballantyne, R.R., (1987) Geography's Position in Secondary School Curriculum - Pupil Enrolment Trends in South Africa. South African Journal of Geography, Vol. 70.
- Bell, W. (1955) Economic, Family and Ethnic Status: An Empirical Test. American Sociological Association, Vol.20
- Bellamy, M.P. (1977) An Investigation into the Development and Assessment of Affective Objectives in Geographical Education with Special Reference to 16 to 19 year old Pupils in South East London. Unpublished M.A. Thesis. University of London: London.
- Blair, G.M. (1975) Educational Psychology, Macmillan: New York
- Bramwell, J. (1984) An Investigation into Sex Differences in Pupils' Attitudes Towards Geography in Content and Learning Activity in the Lower School. Unpublished M.A. Thesis. University of London: London.
- Brown, G. and Peelo, M. (1982) Aspirations and Realisation : Undergraduate Attitudes to Employment. UEAI/Lancaster Mimeo
- Campbell, R.D. (1968) Personality as an Element of Regional Geography, Annals of the Association of American Geographers, Vol. 58.
- Cherian, V.I. (1987) Family Background and Academic Achievement in Transkei. Unpublished Ph.D Thesis. University of Wales : Cardiff.
- Chisholm, M (1975) Geography and Relevance, Area, Vol 3.
- Christensen, C.A. and Massey, D.R. (1989) Perpetuating Gender Inequity: Attitudes of Teacher Education Students. Australian Journal of Education, Vol. 33, No.3
- Cronbach, J. (1951) Coefficient Alpha and the Internal Structure of Tests. Psychometrika, Vol. 16, p. 16
- Cohen, L. (1968) College and the Training of Teachers. Educational Research, Vol. 11.
- Cohen, and Manion, (1988) Research Methods in Education, Croom Helm: London.
- Cox, T. (1983) The Educational Attitudes and Views About School of a Sample of Disadvantaged 15-Year-Olds. Educational Attitudes, Vol. 9, No. 2.
- Dear, M. (1988) The Post Modern Challenge: Reconstructing Human Geography. Transactions of the Institute of British Geographers, New Series, Vol. 13.
- Duckworth, D. and Entwistle, N. (1974) Attitudes to School Subjects: a Repertory Grid Technique, British Journal of Educational Psychology, No. 44.
- Editorial, Geographical Education, Vol. 6, No. 1, (1989)
- Evans, T.D. (1987) Gender and Primary Schooling, Australian Journal of Curriculum Studies, Vol. 19.
- Fay, N. (1981) Geography and Relevance. Teaching Geography.

Vol. 7, No. 1. July.

- Ferron, O.M. (1982) Psychology School, Classroom Learning and All That, University of Transkei: Umtata
- Festinger, L.A. (1957) Theory on Cognitive Dissonance. Stanford University Press: Stanford, C.A.
- Fien, and Gerber, (1988) Teaching Geography for a Better World. Australian Geographical Teacher Association Journal, Jacaranda Press: Sydney.
- Finlayson, D.S. and Cohen, L. (1967) The Teacher's Role : A Comparative Study of the Conceptions of College of Education Students and Headteachers. British Journal of Educational Psychology, Vol. 37.
- Fox, R.C. and Reitjies, C.M. (1990) Human Geography Syllabus - 1st and Second years. Trans. British Geographers.
- Graves, N.J. (1971) Geography in Secondary Education. Geographical Association Sheffield.
(1985) Geography in Education - A Review. In: Kent, A. (ed) Perspectives on a Changing Geography. The Geographical Association: Sheffield, United Kingdom.
- Harvey, D. (1969) Explanation in Geography, Arnold: London
- Herneson, M.E.; Lynn, L.M. and Carol, T. (1978) How to Measure Attitudes. Sage Publications: London.
- Huckle, J.F. (1976) A Consideration of Some Curriculum Problems Involved in Developing an Environmental Ethic with Geography Education. Unpublished M.A. Thesis. University of London: London. In: Research in Geography Education, Institute of Education University of London.
- Human Sciences Research Council, (1981) Provisions of Education in the Republic of South Africa, Cape Town.
- Jensen, A.R. (1977) Geography : Its History and Concepts. Croom Helm: London.
- Kennedy, L.R. and Haniski, R.S. (1975) Measuring Attitudes : An Extra Dimension. Journal of Reading, Vol. 18, pp. 78.
- Keys, W. and Omerad, M.B. (1976) Subjects Pupils Prefer. Dublin Research Review. Vol. 111.
- Kuhn, T. (1977) The Structure of Scientific Revolutions. University of Chicago: Chicago.
- Ledger, R.H. (1980) Geography in South Africa High Schools - Findings of a Recent Survey. South African Geographer, Volume 8, No. 1.
- Levy, H. B. (1984) Geography Teaching in South African Schools for Whites 1800 - 1980, Unpublished M.Ed Thesis. Universif the Witwatersrand : Johannesburg.
- Lewis, G.M. (1974) Level of Living in the Northeast U.S.A. in 1960: A New Approach to Regional Geography. Transactions of the Institute of British Geographers, Vol. 38.
- Lindgren, H.C. (1972) Educational Psychology in the Classroom, Wiley: New York
- Lumb, D. and Child, D., (1976) Changing Attitudes to the subject and the Teaching of Mathematics Amongst Student-Teachers. Educational Studies, Vol. 2, No. 1, March.
- Majoribanks, K. (1976) School Attitudes, Cognitive Ability and Educational Achievement. Journal of Educational Psychology, Vol. 68.
- McCallon, E.L. and Brown, J.D. (1971) A Semantic Differential Instrument for Measuring Attitudes Towards Mathematics.

- Journal of Experimental Education, Vol. 39.
- Mhlangu, D.M.D. (1987) Education Research Methodology, De-Jager-Haum : Pretoria.
- Moser, C. and Scott, K. (1961) Survey Methods in Social Investigation. Heinemann Educational Books: London.
- Mwamwenda, T.S. (1985) Educational Psychology : An African Perspective, Butterworths: Durban
- Muller, A. (1984) Population of Transkei, IMDS: Umtata
- Ngubemtombi, S.V. (1984) Teacher Education in Transkei, Unpublished Ph.D Thesis, University of Natal, Durban.
- Patmore, J.A. (1980) Geography and Relevance. Presidential Address of the Geographical Society. Geography, Vol. 2.
- Porter, P. (1986) Gender and Education. Deaking University Press: Geelay
- Raby, L. and Walford, G. (1981) Career Related Attitudes and their Determinants for Middle and Low Stream Pupils in an Urban, Multi-racial Comprehensive School. Research in Education, Vol. 25.
- Robinson, C. (1982) An Evaluation of Pupil Attitudes Towards Computer Assisted Learning in Geography. Unpublished M.A. Thesis, University of London: London.
- Slater, F. (1982) Learning Through Geography. Heinemann: London.
- Smith, D.M. (1977) Human Geography: a Welfare Approach, Edward Arnold: London.
- Snider, G. and Osgood, L.E. (1969) Semantic Differential Technique - A Source Book, Aldine Publishing Company: Chicago.
- Stephens, A. (1984) A-Level Geography: A Students' Perspective, Unpublished M.A. Thesis, University of London: London.
- Szentes, T. (1971) The Political Economy of Underdevelopment, Akademia Kiado: Budapest.
- Tarsh, J. (1982) The Labour Market for New Graduates. Department of Employment Gazette.
- Thomas, W. (1985) Socio-Economic Development in Transkei. IMDS Fact Paper No. 3, IMDS: Umtata.
- Transkei, Department of Education, (1986) Annual Report, Umtata.
- von Glasersfeld, E. (1984) Paper Presented at the Seminar on Constructivism at the Archives of Jean Piaget, Geneva, Switzerland.
- Warren, H. (ed) (1934) Dictionary of Psychology Houghton., Mifflin.
- Watson, K. (1982) Geography in the Option System: An Investigation into the Role of the Geography Teacher in the Organisation of the Upper Curriculum. Unpublished M.A. Thesis. University of London: London.
- Wicker, A. W. (1973) Undermanning Theory and Research: Implications for Study - the Study of Psychological and Behavioural Effects of Excess Population Reproduction. Research in Social Psychology, Vol 4.
- Williams, R. (1970) How Students See Industry. New Society, No. 391.

APPENDIX A : EXAMPLE OF QUESTIONNAIRE TO PUPILS

A SURVEY OF PUPIL'S ATTITUDES TO GEOGRAPHY

You have been selected as part of a group of pupils to take part in a survey. The purpose of this survey is to collect information about pupil's attitude towards Geography as a subject for study in schools. As such there is no right or wrong answer. Answer each question as you feel. Do not identify yourself as the survey is private and confidential.

Please answer every question with a tick of the appropriate response.

For example :-

(a) Male (b) Female

Thank you for your co-operation.

SECTION A

1. (1) Male (2) Female
2. Age
3. For how many years have you been
studying Geography ?
None 1 2 3 4 5 6 7 8 9 10 11 12
4. Is your school situated in a:-
(1) Rural Area (2) Urban Area
5. For how long have you been at your
present school ?
6. Have you ever been on a Geography Excursion ?
(1) Yes (2) No
7. How far is your home from School ?
(1) Less than 1km (1) 2 to 4 km
(3) 6 to 7 km (4) More than 8 km
8. How do you usually travel to school ?
(1) On foot (2) By bus (3) By taxi
(4) By bicycle (5) By family Car
9. Who is the head of your Family ?
(1) Mother (2) Father
10. Level of Education of Head of Family
(1) No formal Education (2) Primary Education
(3) Std 8 (4) Matric (5) Post Matric
(6) University Education
11. Do you ever get help from your parents
with your school work ?
(1) Yes (2) No
12. How often do you read newspapers ?
(1) Daily (2) Once a week (3) Seldom
(4) Never
13. How often do you listen to the radio news ?
(1) Regularly (2) Sometimes (3) Seldom
(4) Never
14. How often do you watch TV ?
(1) Regularly (2) Sometimes (3) Seldom
(4) Never

SECTION B

For each of the following statements tick either (1) Yes or (2) No to indicate your opinion on the statement. If you are in standard seven please answer only question 16 in this section. If you are in standard eight please answer all questions in this section.

15. I am studying/studied Geography in Standard Seven (1) Yes (2) No
16. I started Geography in Standard Eight (1) Yes (2) No
17. I will start Geography in Standard Nine in Standard Eight I am studying History (1) Yes (2) No
18. In Standard seven I was studying history but now I am studying Geography (1) Yes (2) No

For each of the following statements indicate your opinion by ticking either (1) True or (2) False

19. My teacher encouraged me to study Geography (1) True or (2) False
20. My friends influenced me to study Geography (1) True or (2) False
21. I studied Geography because there is no option when you are studying arts subjects in my school (1) True or (2) False
22. My parents want me to learn Geography (1) True or (2) False
23. I am not studying Geography because in my school it is an alternative to (name the subject) which I like

For each of the following statements indicate your opinion by ticking either (1) True or (2) False

24. I understand most of the things in Geography lessons (1) True or (2) False
25. I enjoy learning Geography (1) True or (2) False
26. Geography is a practical subject (1) True or (2) False
27. Geography textbooks are easy to read and understand (1) True or (2) False
28. Geography is a boring subject (1) True or (2) False
29. Geography should only be studied by intelligent people (1) True or (2) False
30. The problem with Geography is that it is too abstract (1) True (2) False

31. Most of the other subjects I study at school
are far more interesting than Geography
(1) True or (2) False

SECTION C

Against each of items that follow, please
encircle the appropriate number to indicate
your feelings about each of the statements
according to the following interpretation
(1) Strongly agree (2) agree (3) Undecided
(4) disagree (5) strongly disagree.

32. Geography will be useful to me after I leave
School (1) Strongly agree (2) agree
(3) Undecided (4) disagree
(5) strongly disagree.
33. Knowing Geography will help me get a job I Like
(1) Strongly agree (2) agree (3) Undecided
(4) disagree (5) strongly disagree.
34. There are many jobs that need a person with a
knowledge of Geography (1) Strongly agree
(2) agree (3) Undecided (4) disagree
(5) strongly disagree.
35. Learning Geography enables us to know the
world around us (1) Strongly agree
(2) agree (3) Undecided (4) disagree
(5) strongly disagree.
36. Knowledge of Geography is so important
that I think everyone should learn it
(1) Strongly agree (2) agree (3) Undecided
(4) disagree (5) strongly disagree.
37. The Geography syllabus should be based on
the local environment (1) Strongly agree
(2) agree (3) Undecided (4) disagree
(5) strongly disagree.
38. There are more useful things to learn than
Geography (1) Strongly agree (2) agree
(3) Undecided (4) disagree
(5) strongly disagree.
39. The job available to people who
learn Geography is only teaching.
(1) Strongly agree (2) agree (3) Undecided
(4) disagree (5) strongly disagree.
40. Knowing Geography is important only in the
classroom (1) Strongly agree (2) agree
(3) Undecided (4) disagree
(5) strongly disagree.
41. Geography lessons are interesting
(1) Strongly agree (2) agree (3) Undecided
(4) disagree (5) strongly disagree.
42. Through Learning Geography one comes into contact
with many new ideas (1) Strongly agree
(2) agree (3) Undecided (4) disagree
(5) strongly disagree.

43. Learning Geography has more prestige than learning other subjects (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
44. Geography is a creative subject (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
45. My parents are glad that I am studying Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
46. I like Geography more this year than last year (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
47. The Geography syllabus involves too much work (1) strongly agree (2) agree (3) undecided (4) disagree (5) strongly disagree.
48. The problem with Geography is that it is uninteresting (1) Strongly agree (2) agree (3) undecided (4) disagree (5) strongly disagree
49. Geography is too difficult for me (1) strongly agree (2) agree (3) undecided (4) disagree (5) strongly disagree.
50. My parents show no interest in what I am doing in Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
51. The more I study Geography the more I dislike it (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) Strongly Disagree
52. Next year I should like to continue with Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
53. I would like to study Geography in the University (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
54. I would like to make friends with some young people who study Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
55. If I were to choose I would prefer more Geography periods than any other subject (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
56. I want to end my Geography lessons this year (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
57. Other subjects I study at school are more important than Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
58. I hate reading Geography textbooks (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.
59. There is nothing new to study in Geography (1) Strongly agree (2) agree (3) Undecided (4) disagree (5) strongly disagree.

SECTION D

On a scale from 1 to 5 please describe your attitude to each of the following by ticking the appropriate column :

The Study of Climates, Landforms, Rivers and lakes are:

60.	Productive	1	2	3	4	5	Unproductive
61.	Varied	1	2	3	4	5	Repetitive
62.	Pleasant	1	2	3	4	5	Unpleasant
63.	Good	1	2	3	4	5	Bad
64.	Nice	1	2	3	4	5	Awful
65.	Satisfying	1	2	3	4	5	Frustrating
66.	Comfortable	1	2	3	4	5	Uncomfortable
67.	Valuable	1	2	3	4	5	Valueless
68.	Enjoyable	1	2	3	4	5	Unenjoyable

Mapwork Lessons are

69.	Productive	1	2	3	4	5	Unproductive
70.	Varied	1	2	3	4	5	Repetitive
71.	Pleasant	1	2	3	4	5	Unpleasant
72.	Good	1	2	3	4	5	Bad
73.	Nice	1	2	3	4	5	Awful
74.	Satisfying	1	2	3	4	5	Frustrating
75.	Comfortable	1	2	3	4	5	Uncomfortable
76.	Valuable	1	2	3	4	5	Valueless
77.	Enjoyable	1	2	3	4	5	Unenjoyable

Settlement Geography is

78	Productive	1	2	3	4	5	Unproductive
79.	Varied	1	2	3	4	5	Repetitive
80..	Pleasant	1	2	3	4	5	Unpleasant
81.	Good	1	2	3	4	5	Bad
82.	Nice	1	2	3	4	5	Awful
83.	Satisfying	1	2	3	4	5	Frustrating
84.	Comfortable	1	2	3	4	5	Uncomfortable
85.	Valuable	1	2	3	4	5	Valueless
86.	Enjoyable	1	2	3	4	5	Unenjoyable

Fieldwork is

87.	Productive	1	2	3	4	5	Unproductive
88.	Varied	1	2	3	4	5	Repetitive
89.	Pleasant	1	2	3	4	5	Unpleasant
90.	Good	1	2	3	4	5	Bad
91.	Nice	1	2	3	4	5	Awful
92.	Satisfying	1	2	3	4	5	Frustrating
93.	Comfortable	1	2	3	4	5	Uncomfortable
94.	Valuable	1	2	3	4	5	Valueless
95.	Enjoyable	1	2	3	4	5	Unenjoyable

Studying About Other Peoples is

96.	Productive	1	2	3	4	5	Unproductive
97.	Varied	1	2	3	4	5	Repetitive
98.	Pleasant	1	2	3	4	5	Unpleasant
99.	Good	1	2	3	4	5	Bad
100.	Nice	1	2	3	4	5	Awful
101.	Satisfying	1	2	3	4	5	Frustrating
102.	Comfortable	1	2	3	4	5	Uncomfortable
103.	Valuable	1	2	3	4	5	Valueless
104.	Enjoyable	1	2	3	4	5	Unenjoyable

SECTION E

The following are some of the subjects you study at school. Indicate how useful you think each subject is by ticking any of these squares :

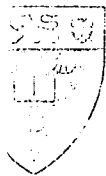
(1) Most useful (2) Very useful (3) Useful

(4) Of little use (5) Quite Useless

Most Useful Very Useful Useful Of Little Use Quite Useless

		1		2		3		4		5	
Biology											
History											
Mathematics											
Physical Science											
Geography											

THANK YOU VERY MUCH FOR YOUR TIME



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APPENDIX B : EXAMPLE OF LETTER TO SCHOOL PRINCIPALS

31 January 1992

TO WHOM IT MAY CONCERN

Mr E Sarpong is a Masters of Education Student at Rhodes University. Mr Sarpong's study area is concerned with the perceptions of Transkei geography pupils of geography as a discipline.

The research requires him to administer a questionnaire at Secondary Schools in Transkei and will of necessity involve the geography specialist pupils.

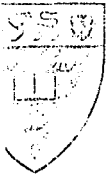
We request your permission to allow him to undertake the research in the Secondary Schools under your jurisdiction.

Yours faithfully

SUPERVISOR

DEAN

98/...



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Yours faithfully

SUPERVISOR

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98/...

SENIOR SECONDARY COURSE: SYLLABUS FOR GEOGRAPHY STANDARD
GRADE

The following syllabus for Geography Standard Grade for the Senior Secondary Course will be introduced as from 1 January 1985.

The syllabus will be introduced in Standard 8 in 1985 and the first Senior Certificate Examination in this subject will be held in November/December 1987.

SENIOR SECONDARY COURSE: SYLLABUS FOR GEOGRAPHY STANDARD
GRADE

PRINCIPLES ON WHICH THE SYLLABUS IS BASED

1.1 Nature of Geography

Geography as a subject has many areas of overlap with other subjects in both the natural and the social fields of study. This syllabus takes into account the essential nature of Geography. It ensures that:

1.1.1 the four major traditions in Geography are upheld. These are:

- (a) man - land relationships
- (b) the spatial perspective
- (c) the regional viewpoint
- (d) the earth-science component

1.1.2 a balance is maintained between Physical Geography and Human Geography;

1.1.3 provision is made for both the theoretical and the practical aspects of the subject;

1.1.4 sufficient flexibility exists to allow for the changing nature of the subject.

1.2 General education of the pupil

Education is concerned with the development of the 'whole being' and not merely with imparting knowledge.

1.2.1 The most important aims, in the long term, are for pupils to:

- (a) acquire and develop intellectual skills and abilities which will promote on-going education

- (iii) adjust to a society that is undergoing rapid and far-reaching social, economic and political changes.
- (iv) enter the world-of-work that is becoming increasingly more technologically orientated.
- (v) develop their moral and emotional (affective) attributes.

The teaching of Geography should neither be specifically vocational, nor entirely university orientated. The syllabus should provide for two groups of pupils:

- (a) those who will receive no further instruction in the subject, and
- (b) those who will continue with the study of Geography at a tertiary level.

Although the syllabus is divided into a Junior Secondary Phase and a Senior Secondary Phase, the two phases must be linked, and must allow for the progressive development of geographical knowledge, skills and attitudes.

Teachers in preparation should bear in mind the capabilities of comprehension, analysis, application, synthesis and evaluation.

The subject should be taught in such a way that pupils develop an eagerness for further study and individual achievement.

Teachers should be aware of the contribution Geography is making to the general education of the pupil. It is this awareness that gives direction to day-to-day teaching.

Objectives should be meaningful to pupils and teachers alike, and must constitute both realistic and achievable targets.

The type and number of short-term objectives in Geography or Geography and those selected for a lesson should be closely correlated with the nature of the subject matter and the resources available to the teacher.

Objectives can be classified into four main categories:

5.1 Knowledge

Pupils should acquire a fundamental body of knowledge which is meaningful and useful to them and which can be applied and reproduced in whatever form is required.

Pupils should recognize the unity of knowledge through the links that Geography has with other subjects.

5.2 Skills

No list of skills can be complete. The following should, however, be kept in mind:

(i) The importance attached to different skills should be related to the abilities and maturity of the pupils.

(ii) The development of skills should enable pupils to deal with knowledge in an organized manner.

(iii) Pupils should gain proficiency in the use of skills through repetition and the application of these skills to new situations.

Geography makes a particular contribution to the following skills:

(i) Oracy and literacy: thinking logically, writing concisely, speaking with assurance and accuracy.

(ii) Numeracy: facility with simple statistical methods, graphs and tables.

(iii) Graphicacy: the ability to draw, read and interpret.

(iv) Interpretation: of pictures, photographs and maps.

(v) Fieldwork techniques: using either the traditional (survey) or the scientific approach.

5.3 Perception

The way in which the environment is 'perceived' in relation to the 'actual' environment influences the pupils' concept of space (spatial conceptualization).

(a) In order to heighten the pupils' perception of their environment, it is necessary for them to:

(i) /...

- (iii) realize that the quality of life is influenced by the aesthetic aspects of man's environment as well as by an appreciation of the grandeur and wonder of Creation.

TEACHING GUIDELINES

Teaching approaches

Teachers should make every effort to create effective learning experiences for their pupils. Whatever teaching method is used, it is essential to develop a sense of realism in the teaching situation.

1.1 The holistic or global approach

- (a) It is particularly important that the components of the syllabus be viewed as parts of a whole and not as isolated compartments of knowledge.
- (b) The divisions of the syllabus should be regarded as a convenient means of grouping the characteristics of the individual components.
- (c) Whenever possible, the relationship and interaction between components should be stressed.

1.2 The descriptive versus the problem-solving approach

- (a) Although there is still room for some of the descriptive techniques of the old traditional Geography, emphasis should be given to a more problem-orientated approach.
- (b) Pupils should gain insight into the process of decision-making by participating in exercises such as simulation games.

1.3 The systems approach

- (a) It is recommended that teachers introduce the concept of systems into their teaching.
- (b) Pupils should be aware that Geography encompasses the study of a very complex man-environmental ecosystem. This complex system is broken down into a number of subsystems to facilitate its study.
- (c) Several components of the syllabus could be taught as subsystems such as those associated with weather, drainage and urban subsystems.

3.1.4/...

3.1.4 The interdisciplinary approach

(a) Concepts studied in Geography may overlap with those of other subjects such as Biology, Science and Economics.

(b) Inter-disciplinary studies should form part of the broad teaching strategy. This will enhance the value of both the learning content and the learning objectives.

3.1.5 The scientific approach

Pupils should be trained in the scientific method of enquiry (statement of hypothesis, followed by the collection and classification of information, and finally, the testing of the hypothesis).

3.2 Learning techniques

It is recommended that, where appropriate, teachers should:

3.2.1 Integrate the reading and analysis of photographs and maps with the relevant sections of the syllabus. This includes:

- (a) photographs: vertical, oblique and horizontal (i.e. aerial and ordinary)
- (b) maps: such as wall, atlas, topographic maps of Southern Africa (particularly the 1 : 50 000 SA series), and municipal maps of the local area
- (c) satellite images

3.2.2 Ensure that pupils become competent in the use of various measuring instruments and other apparatus;

3.2.3 Make use of diagrammatic representation of statistics. For example, climatic figures, economic data and population characteristics can be illustrated by means of curves, columns rectangles, circle segments, dots, colour, pictorial diagrams and isolines;

3.2.4 Introduce quantitative techniques such as means, deviations (range), simple correlations, scattergrams, regression lines and probabilities. Emphasis should be on understanding what the different techniques reflect. Complicated calculations and constructions need not be required.

3.2.5/...

evaluation

evaluation is concerned with both:

the measurement of pupil achievement, and

the effectiveness of lesson preparation, class management and the achievement of lesson objectives.

EXAMINATIONS

There should be continuous evaluation for all standards:

Pupils in Standards 8 and 9 must write an internal examination at the end of each year.

At the end of the external examination will be set at the end of the Standard 10 year.

Although the examination will be set on the Standard 10 syllabus, candidates will be expected to draw on their overall knowledge of concepts and skills developed in previous years.

This examination will consist of two papers:

(i) PAPER 1: 1½ HOURS (Sufficient time for a study of the map and photograph(s) is included)

(ii) Compulsory questions on photo and map reading, analysis and interpretation will be set.

(iii) The emphasis will be on interpretation, and questions will relate to aspects of Physical, Settlement and Regional Geography. (60)

(240)

PAPER 2: 3 HOURS

(i) This paper will be divided into three sections.

(ii) Four questions must be answered: One from each section and the fourth question may be chosen from sections A, B or C. (4 x 60)

(iii) Lay-out of paper:

SECTION A - PHYSICAL GEOGRAPHY

Two questions set; at least one must be answered.

SECTION B - SETTLEMENT GEOGRAPHY

Two questions set, at least one must be answered.

SECTION C/...

3.1.1 refer to models. These include:

- (a) conceptual models (such as urban and economic models) which need to be tested against the real world and enable generalisations to be made. These enable geography to be studied by means of a more problem-orientated approach, and
- (b) physical models (such as globes, tellurions and paper-maché /sand-tray models) which provide effective representations of the real world.

3.1.2 encourage well planned and meaningful fieldwork;

this includes: observation and measurement in the field; the recording and processing of data; the interpretation of written and graphical information.

3.1.3 encourage individual and group research techniques;

- (a) pupil involvement, independent activity, initiative, creativity and independence should constantly be encouraged.

- (b) pupils should learn to rely on personal observation in the field (primary source) and to make use of secondary sources such as: reference books; maps, photographs and diagrams; films, tapes and slides; and apparatus as well as television, the radio and the press.

Pupils need to develop worthwhile attitudes towards their work, such as: respect for evidence; a critical appraisal of reporting; a suspicion of simplistic explanations; and a willingness to engage in rational discussion.

- (c) pupils need to distinguish between central issues of importance and peripheral issues.

3.1.4 Pupils should undertake short independent study topics throughout the year on work related to the requirements of the syllabus.

3.2 Differentiation

- (a) Teachers should not expect the same amount and quality of work from all pupils. Differences in ability must be taken into account. However, each pupil can be expected to work at the highest possible level of his own ability.

3.2.1 Even if the topics studied are common to all grades, however, pupils in different grades will not be expected to study issues in the same depth. The approach to, and the content of work for less able pupils should be more direct.

3.4/...

APPENDIX D

PROCEDURE INVOLVED IN THE PRINCIPAL COMPONENT ANALYSIS

The precise number of principal components to be extracted varies from one data set to another the process is however the same..

(1) The first step is to standardise the variables so that the variance and the standard deviation are the same. This is done through the calculation of each observation on the corresponding Z-score of each variable.

$$Z \text{ score} = \frac{(X - \bar{X})}{S_x}$$

Once standardised two independent sources of variation in the data emerge (1) the common variance between the variables and (2) the residual variance in the data set not accounted for by the first. Together they account for the total variance. These two are orthogonal to each other ie they are uncorrelated and therefore are linearly independent. Principal components are calculated from the common variance.

(2) The next step is to correlate the variables. In the case of a perfect correlation there will be only one principal component. As the correlation decreases many principal components become evident. From the correlation coefficients a correlation matrix is obtained.

(3) The third step is to assess the principal component loadings. The principal component loadings can be calculated directly from a correlation matrix through a process of summing up all the coefficients in the matrix in a row or a

column (they should both yield the same answer). The square of these loadings indicates the proportion or percentage variance in a variable associated with the principal component. The higher the numerical value therefore the more significant the variable is for that principal component.

(4) The fourth step is to calculate the eigenvalues. This is the sum of the squared component loadings from the correlation matrix. The sum of all eigenvalues is equal to the number of variables in the data set. The eigenvalues indicates the percentage of the variance accounted for among the variables.

In interpreting principal components the loadings are important but reference must also be made to the original data set.