CHANGE IN SECONDARY SCHOOL GEOGRAPHY EDUCATION: TEACHER ATTITUDES AND PRACTICE

BY

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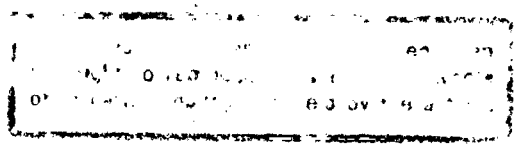
Thesis presented for the Degree

of

Doctor of Philosophy

University of Cape Town

December 1986



ABSTRACT

CHANGE IN SECONDARY SCHOOL GEOGRAPHY EDUCATION : TEACHER ATTITUDES AND PRACTICE.

This study concerns the nature of secondary school geography education and the complex interrelationship between syllabus aims and practice, teacher socialization and classroom decision-making. The focus is on change within the educational system and the identification of those areas which merit attention if strategies are to be introduced to ensure that teachers adopt practice which achieves the third phase aims of the geography syllabus.

Changes in South African geography education are described and the nature of the subject is compared with international aspects of geography education according to the Graves typology (1981). From analysis it is concluded that if teachers are to be encouraged to adopt third phase teaching practice information is needed regarding training and organisational elements affecting classroom decision-making during the process of professional socialization. To this end, a questionnaire survey was devised to measure Cape Education Department teacher and pre-service training student attitudes towards reasons for teaching, geography education and practice, pre-service teacher-training, influences upon teaching style as well as actual and ideal use of teaching methodologies. Data from the postal survey were used firstly, to establish teacher characteristics and attitudes towards, and practice in, geography education; secondly, to investigate differences in teacher attitudes and practice when grouped according to training, school and personal characteristics; and thirdly, to identify the process of teacher socialization as individuals progress from student to experienced teacher. Further information regarding the process of change during the probationary year of teaching was obtained through the analysis of case study diaries.

The principal findings of the investigation are that there is a dichotomy between the stated aims of the secondary syllabus and school practice in the Cape Education Department; secondary school geography education in the schools is second phase in nature; major differences exist between the attitudes and practice of English- and Afrikaans-speaking geography teachers; and that outmoded teaching practice is perpetuated as a result of teacher attitudes, and classroom decision-making, being influenced more by school than by training experience. The implications of these findings for change in secondary school geography education are considered.

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ACKNOWLEDGEMENTS

A number of individuals and organisations have contributed to this work. I would like to extend my sincere thanks to:-

Dr G. Cook and Prof. P. Spargo for the long hours they have spent in the supervision of this thesis. In particular, Dr G. Cook for her critical insight, incisive questioning and constructive comments regarding the theoretical aspects of the thesis; Professor P. Spargo for his sound advice and guidance on the educational aspects of the thesis as well as encouragement and support throughout.

Dr R. Sparks from the Department of Mathematical Statistics at the University of Cape Town for his advice on the initial statistical procedures used in the research.

Prof. D. Foster and Prof. J. Meyer for their advice regarding questionnaire construction.

Prof. I. Nicol, C. Nightingale and J. Earle for their comments regarding the historical review of change in South African geography education.

The Cape Education Department, for allowing research to be undertaken in schools under their control as well as those geography teachers who gave of their time to answer and return the questionnaire survey.

The geography education lecturers at the Universities of Port Elizabeth, Rhodes and Stellenbosch who helped in the administration of the student questionnaire surveys.

The probationary teachers who so willingly and dilligently kept weekly diaries of their first year school experiences.

Mrs J. Ballantyne and Ms J. Hallward for their help in typing and correcting the manuscript.

The Human Sciences Research Council for financial assistance. Opinions expressed in the text are, however, solely those of the author and do not necessarily reflect the views of the HSRC.

Finally, to my wife and children for their understanding, support and encouragement during the time spent on this research.

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INTRODUCTION

The challenge of change has confronted all those involved in the discipline of geography since the late 1950's. During this period geography has undergone a 'revolution' in which the general focus of the subject has changed from description and interpretation of cultural and physical aspects of the world towards a concern with process and spatial analysis. The emerging 'new' geography was conceptually based, involved a theoretical approach and the use of quantitative techniques. This approach was particularly suited to research in physical geography. However, the quantitative approach was challenged by those disenchanted with the difficulty of propounding theory, particularly where models were poor descriptors of reality (Johnston, 1983). This discontent led to a rejection of positivism as a methodology, especially by those geographers who supported a humanistic approach in the analysis of major social issues i.e., economic uncertainty, poverty and man's despoilation of the physical environment (Johnston, 1983). Accordingly, the knowledge base of the discipline has continued to expand and there has been a continuing need for practising geographers to respond to these changes.

The nature of education in the 1980's has also changed markedly from that in the 1950's. In western societies change may be observed in the general aims of education where the emphasis has shifted from a concern with imparting content knowledge towards the development of pupil concepts, skills, attitudes and values. This move has occurred largely as a result of, amongst other things, changes in the nature of society, the knowledge explosion and the research findings of educational psychologists concerning the process of learning. Accordingly, the past few decades have witnessed a move from a preoccupation with conveying subject content towards an interest in the process of education. Accompanying this trend has been an increase in utilitarian and reconstructionist influences upon educational curricula. The degree of influence of these has varied from one country to another (Walford, 1981).

Since the 1950's, therefore, changes in the academic discipline, coupled with those in the general educational sphere, have ensured that the nature of geography education has altered in terms of aims, content and teaching practice. The magnitude of this change will be appreciated if one compares textbooks of thirty years ago with those in use today.

Generally, the aims of geography education have been moulded both by subject and educational change. Thus it is common today to find that school geography attempts to develop pupil understanding and use of geographical theory, concepts and skills, as well as to help in clarifying and creating an awareness of attitudes and values. In this manner the subject contributes towards the development of the whole child rather than imparting geographical information per se (Graves, 1981). Accordingly, content is subjugated to educational aims, although obviously the choice of material is also influenced by changes in the academic nature of the subject. The interaction between educational and geographical influences has led to a relative emphasis on humanistic content in school syllabuses as teachers attempt to educate for adaptability and become socially aware of the purposes of geography education (Bailey, 1985). Changes have necessitated an alteration in classroom teaching practice. In this, geography teachers are following the general trend in education and adopting a non-directive, pupil-centred approach in the classroom.

Change in syllabus aims and content can be implemented relatively successfully but many difficulties are experienced in bringing about teaching practice change. Attempts to encourage geography teachers to use non-directive, pupil-centred practice, have been a major focus of attention in geography education since the 1960's. Consequently, the value of an enquiry-based, pupil-centred approach is presented to teachers during pre-service and in-service training as well as by geography subject advisors. However, even in countries where syllabus aims and content are chosen to develop pupil concepts, skills, attitudes and

values, it is found that a teacher-centred approach is common and the majority of time in classrooms is spent in teachers lecturing or pupils working on written assignments (Knight, 1976; Sirotnik, 1983; Slater, 1976). It should be noted, however, that the resistance of geography teachers to the adoption of a pupil-centred approach in the classroom is not unique to the subject and reflects the general situation existing in secondary school education in many countries, e.g. United States of America (Levine *et al*, 1985).

The picture in South Africa is probably no different as geography education in the country tradionally follows the lead of educators in the United Kingdom (Nicol, 1974). Alterations have accordingly been made to syllabus aims and content as well as the nature of the final school leaving examination. Whether classroom teaching practice has altered in order to develop pupil concepts, skills, attitudes and values is, however, not clear.

There is a serious gap in knowledge of the interrelationship between syllabus aims and teaching practice in South African schools. Accordingly, there is a need to analyse aims, content and classroom teaching practice in the light of international standards to establish the true nature of geography education and the level of change which has been achieved. Furthermore, if change is to occur in the nature of classroom teaching practice it is essential that information be obtained regarding geography teacher reasons for their choice of teaching practice. Strangely, as far as can be ascertained, such information is not internationally available. It is necessary therefore to identify the relative influence of training and school experiences upon geography teacher classroom decision-making during the process of professional socialization. Information of this nature will give an indication of how best to persuade teachers to move away from the use of a predominantly content-based, teacher-centred approach in geography lessons in order to achieve the true educational value of the subject.

This study aims to fill the above gap in knowledge by investigating the thoughts and classroom teaching practice of secondary school geography teachers. The work in this study falls naturally into two parts, i.e., a consideration of change and the present nature of geography education in South Africa, and research into geography teacher attitudes and practice. The initial goal of the study concerns an investigation of the nature of secondary school geography education and the complex interrelationships between syllabus aims and practice, teacher socialization and decision-making. The focus is upon change and the identification of those areas meriting investigation if an understanding of geography teacher classroom decision-making is to be gained. Once this investigation is completed, the study aims to establish the attitudes and practice of geography teachers and the changes which occur during the process of professional socialization.

Chapter One provides a perspective on the structure and control of geography education in South African secondary schools and investigates the relative position of geography as a subject in the secondary school curriculum. The nature of syllabus, examination and teaching-practice changes since 1970 are outlined. Chapter Two considers the nature of South African geography education within an international framework by analysing it in relation to the typological phases suggested by Graves (1981). A key purpose of this chapter is to establish the extent to which the content and practice is third phase in nature. Chapter Three concentrates on the role of the teacher in educational change. Accordingly, theories of teacher socialization and classroom decision-making are discussed with the intention of gaining insight into those factors which underpin geography teacher classroom behaviour. In the light of the features identified in Chapters 2 and 3, Chapter Four examines major training and organisational elements affecting geography teaching practice in South Africa and considers their probable influence upon geography teacher classroom decision-making.

The remainder of the work focuses on practising geography teachers in order to firstly, establish their attitudes and practice, and secondly, to identify the influence of training and school experience upon their teaching practice decision-making. Due to the fragmented nature of education in South Africa and the variety of influences affecting teacher attitudes and practice in various departments, it was decided to limit the survey to teachers in the Cape Education Department. Geographers in this department are typical of those in 'White' schools generally, and as such, research results will be a bench mark against which further studies may be compared. The socio-economic background and teacher training programmes in this department are sufficiently similar to those prevailing in developed countries of the western world to allow realistic comparisons to be made with the situations existing in these societies. (The terms race, or racially based descriptive nomenclature such as 'White', 'Asian', 'Coloured' and 'Black' are used in this study only because they are unavoidable in the South African context. This usage in no way implies that the author accepts the racist connotations of such terms.)

Chapter Five outlines the aims of the data gathering exercise, justifies the selection of the study group and presents the rationale for the questions and techniques used. Chapter Six presents details of geography teachers in the Cape Education Department and an overview of their attitudes and practice. Chapter Seven highlights the significant differences that emerge between teachers when they are grouped according to training, school and personal characteristics. This allows the identification of those groups whose attitudes towards, and practice in, geography education are furthest removed from the ideals of third phase geography education. An attempt is then made, in Chapter Eight, to investigate changes in attitude and practice as individuals advance through the career hierarchy. In the light of these findings the impact of school experience upon probationary teacher attitudes and practice is monitored through the use of personal diaries.

Chapter Nine considers implications for change and discusses the value of an approach which would involve teachers in the planning process in post-apartheid South Africa.

By concentrating on a particular group of teachers this study contributes towards an understanding of change in secondary school geography education in South Africa. However, the findings are not intended to be limited to the particular but have a more general impact by providing new insight into the process of geography teacher professional socialization in respect of classroom decision-making. The research should provide useful information to those wishing to encourage geography teachers to adopt teaching practice which aids in the development of pupil concepts, skills, attitudes and values. In this way it should enhance the educational value of geography and thereby strengthen its position in the secondary school curriculum of the future.

CHAPTER ONE

GEOGRAPHY IN SOUTH AFRICAN SECONDARY SCHOOLS.

1.1 INTRODUCTION.

Geography has been taught informally in South African schools from the eighteenth century. It was not until the nineteenth century, however, that the subject was formally included in the secondary school curriculum (Levy, 1984). The first mention of geography as a school subject in the Cape Colony was in 1835 when the astronomer Sir John Herschel mentioned geographical content in a description of his ideal school curriculum. In 1838 Herschel sent a memorandum to Lord Glenelg, then Secretary of State for the Colonies in the British Government, recommending that political and physical geography be taught in Cape schools (Levy, 1984).

With the establishment of an Education Department in the Cape Colony in 1839 geography was introduced into the official school curriculum. According to a Government Memorandum, secondary school geography education in the Cape was to consist of descriptive geography "with conversational illustrations of the figure and motions of the earth and its chief physical appearances and problems on the terrestrial globe and construction of outline maps" (Levy, 1984, p.54). Geography as a school subject spread steadily and by 1876 it was established in secondary schools in all areas which today form part of the Republic of South Africa (including the Independent and National States).

In 1894 the first detailed geography syllabus was published in the Cape Colony and it was not long before the Natal Colony and the two Boer Republics (the Transvaal and the Orange River Republic) followed suit. In terms of syllabus content and approach, geography education in the Cape and Natal Colonies followed similar lines. Geography education in the two Boer Republics was, however, slightly different in that there was "a reluctance on the part of the Boers to

follow the ideas of the British too closely, particularly with regard to the dominance of regional studies of Britain and British colonies" (Levy, 1984, p.69). In 1910 the Union of South Africa came into being and the Cape, Natal, Transvaal and Orange Free State were united under one parliament. Although control of secondary school education was granted individually to the four provinces, geography education followed much the same pattern throughout the country as the same core syllabus was used.

The development of South African school geography since 1910 has been extensively covered by Levy (1984) and van der Merwe (1982). According to these researchers few changes of any note occurred in secondary school geography education during this period despite the fact that the subject was apparently dropped from the South African curriculum between 1903 and 1918 (van der Merwe, 1982). Geography syllabuses were regularly revised in order to keep pace with academic developments in the subject although the revision of syllabuses prior to 1963 did not officially involve the universities and was undertaken by education departments (van der Merwe, 1982).

Geography education in schools between 1910 and 1945 was strongly influenced by British trends and the syllabuses of this period were marked by an emphasis on natural regions and topics in physical geography. After 1945 an effort was made to move away from a purely British orientated geography in terms of syllabus content, and African and South African topics were increasingly included in secondary school syllabuses (van der Merwe, 1982). Although geographical content differed from that taught in Britain, it is important to note that the objectives and pedagogics of the subject continued to be greatly influenced by British trends and experience. This influence continues to the present day (Nicol, 1974).

1.2 THE STRUCTURE AND CONTROL OF SOUTH AFRICAN SECONDARY SCHOOL GEOGRAPHY.

Geography education in South African schools occurs within a racially segregated education system. This system existed in South Africa, albeit less informally, before the coming to power of the Nationalist Party in 1948. Prior to this, private schools admitted pupils of different race although this was not particularly common (Randall, 1982).

The structure of apartheid education in South Africa is based upon three fundamental principles which grew out of the struggle for religious education and Afrikaner nationalism in the schools in the 1870's. Known as Christian National Education the three basic principles are :-

(i) the religious creed of the Afrikaner which is Christian in its basis, character, aim and spirit.

(ii) education must be national in character, aim and spirit. Afrikaner language, history and culture must permeate the pupils' education.

(iii) education of the child is primarily the duty of parents together with the Church, State and school. Parents are responsible for the physical, intellectual and spiritual education of the child; the Church supervises the spiritual education of the child together with the parents; the State ensures that all citizens receive education and is concerned with the establishment, maintenance and control of schools; schools educate the child in the spirit and background of the home (Christian National Education, 1971).

After the coming to power of the (Afrikaner) Nationalist Party in 1948, the formal implementation of Christian

National philosophy in the education system of the country entrenched the system of separate education for different nationalities and races. Language and racial differentiation in schooling was perceived as right and just, as nations and races differ in their languages, history and political institutions (Christian National Education, 1971).

Apartheid education has had a far-reaching effect upon the quality of education received by different racial groups (for a concise account of the influence of Afrikaner philosophy upon South African education see Smit, 1985). This form of education is increasingly condemned for its inherently unjust nature and its inappropriateness in a multiracial society, and the cry 'separate but equal' is seen by many as untrue, unattainable and unwanted (Saunders, 1985). Although undoubtedly of considerable importance and interest to educators, an analysis and discussion of apartheid education per se is outside the scope of this study. It is important to note, however, that no matter how much one disagrees with the system, the reality of the situation ensures that any research undertaken in South Africa at the secondary school level takes place within a racially segregated system.

The Bantu Education Act of 1953 formalised racially separate schooling and made it illegal for schools to admit children of different race groups. Although a few schools (usually Catholic private schools) quietly ignored the Act of 1953 it was not until the 1970's that a concerted effort was made by private schools to admit pupils regardless of race. In 1977 "government announced that the policy of separate schools was to be maintained but that exceptions could be made by the provincial authorities in the case of private church schools" (Randall, 1982, p.192-193). As a result of this concession many private church schools have an open admission policy, but due to the heavy expense involved in attending such schools, the intake of 'Black' pupils is generally small. State schools, which educate the vast

majority of pupils in South Africa still, however, operate within a rigidly separate education system.

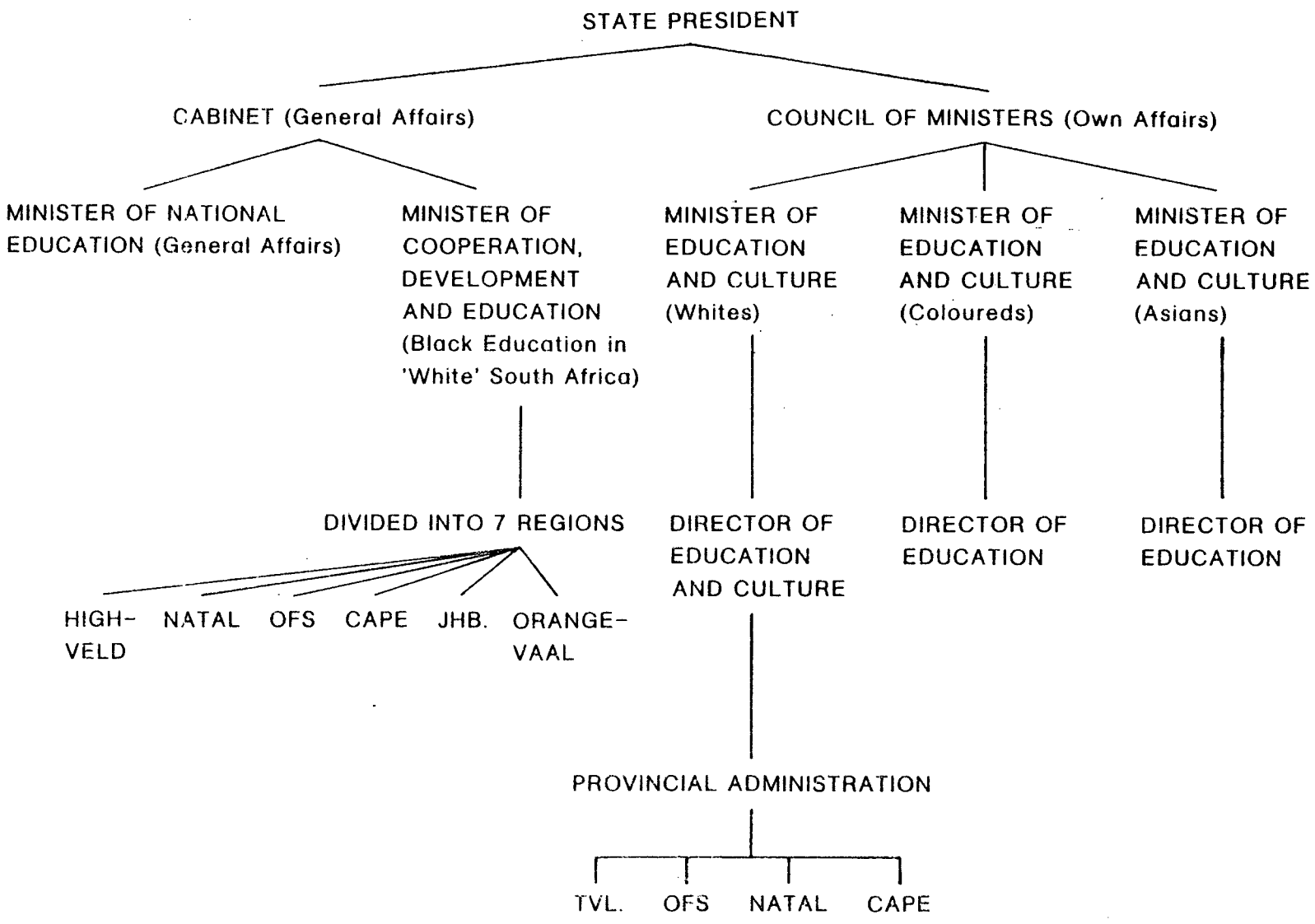
The implementation of apartheid education in South Africa in 1953 has also greatly affected the structure and control of education within the country. The structure (which ensures national and racial separation) has diversified control to such an extent that secondary school geography is at present administered by 18 different departments of education (Fig. 1.1). Although control of geography education is vested in each education department, the nature and structure of secondary school geography remains much the same throughout the country. This is mainly due to the role played by the (South African) Joint Matriculation Board (JMB) in syllabus construction and the control of matriculation examination standards.

Within apartheid education a differentiated system of education was instituted for all 'White' pupils in the early 1970's. In this system secondary school education was divided into two phases; junior secondary (standards 5, 6 and 7; ages 12 - 14) and senior secondary (standards 8, 9 and 10; ages 15 - 17). Within these phases three different streams or grades of education may be followed i.e., lower (practical), standard or higher. Each stream aims to provide pupils with education according to their particular needs and abilities.

Geography is a compulsory subject until the end of the junior secondary phase of education. Its central position in the junior secondary school curricula is, among other reasons, due to its importance in relation to the philosophy of Christian National Education. Geography syllabus content is seen to lend itself to providing pupils with a Christian National perspective of the wonders of creation as well as pride in the land of their birth (Jooste, 1983).

In the senior secondary phase the subject is an elective and thus competes with other subjects for pupils. The position of geography in the senior secondary phase of education is

EDUCATION IN SOUTH AFRICA EXCLUDING THE INDEPENDENT AND NATIONAL STATES



EDUCATION IN THE INDEPENDENT AND NATIONAL STATES

SEPARATE AND INDEPENDE EDUCATION DEPARTMENTS EACH OF THE FOLLOWING:-

GAZANKULU

LEBOWA

QWA-QWA

KWANDEBELE

KWAZULU

KANGWANE

TRANSKEI

BOPHUTHATSWANA

VENDA

CISKEI

controlled by the rules and regulations of the JMB and provincial departments governing pupil subject choice. According to JMB regulations (1984) school subjects are placed into one of six groups A - F (Appendix A). 'In order to satisfy the requirements for a Matriculation Exemption (and hence be eligible to apply for university entrance) pupils must write examinations in "not fewer than six and not more than seven subjects selected from Groups A - F" (JMB, 1984, p.54). Governing the list of conditions affecting a pupil's choice of subjects is the rule that at least "one subject from each of four different groups or two subjects from Group C or Group E and one subject from each of two other groups must be chosen if a matriculation pass is to be awarded" (JMB, 1984, p.54).

Geography is favoured in the subject groupings as it is one of few which falls into two groups, i.e., E (human sciences) and F (additional subjects). In group E geography is grouped with biblical studies, economics and history. The subjects in group F are more numerous and include amongst others, accountancy, art, home economics, music, speech and drama and technical drawing (Appendix A).

Departments of education use JMB subject groupings to create 'subject packages' which they implement in secondary schools under their control. Pupils choose the subject package they wish to follow throughout their senior secondary phase of education during their standard seven year. Although geography falls into two groups, some departments of education, while acting within the JMB regulations, do not have a subject package allowing pupils to combine physical science, biology and geography for matriculation purposes. In these instances geography is frequently not selected by science-orientated students, who generally choose the physical science/biology package rather than the geography/physical science or geography/biology packages. Physical science and biology are generally perceived as 'hard' science subjects when compared with geography and as such they have a higher status in the schools. This leads to the mistaken perception that

geography is an easy option which cannot be placed on a level footing with physical science, biology or mathematics in the school curriculum (Craig, 1979).

The differentiated system of education in operation within schools necessitates the construction of three secondary school geography syllabuses, viz., lower, standard and higher grade. Although in theory the three syllabuses are designed for pupils with differing intelligence, interests and career paths, in reality the content is very similar and the only real difference is the degree of rigour of the school leaving examination (Niemeyer, 1984). As Nightingale (1985, p.90) states, "the Standard Grade course is the Higher Grade course with a few (a very few) of the more difficult concepts left out".

Geography core syllabuses followed in South African schools are controlled by the Committee of Heads of Education (CHE). Syllabuses are drawn up in close collaboration with education departments and other interested parties such as university representatives. Those involved in constructing and revising geography syllabuses since 1970 have largely been persons from tertiary institutions or departmental administrators rather than practising secondary school teachers. As a result syllabus content has, to a large extent, reflected the views and needs of academics rather than those of practising teachers (Ballantyne, 1982). It is small wonder that Earle (1976, p. 264), remarking on academic praise for the 1973 syllabus, states "if one were to trace the pedigree of the syllabus, perhaps one would understand why this (was) so."

The JMB is instrumental in guiding the CHE as regards the revision or redesign of core syllabuses on a regular basis. Once a core syllabus is approved by the CHE and the JMB, Departments of Education use it as "a point of departure for the compilation or revision of their own syllabuses" (Human Science Research Council, 1981, p.147). Variation in departmental syllabuses in South Africa is, however, minimal as the core syllabus provides little in the way of optional

material. Also, the amount of work prescribed in the core syllabuses is generally so extensive that to include any more would be to burden geography teachers and pupils excessively.

1.3 CHANGES IN SECONDARY SCHOOL GEOGRAPHY EDUCATION SINCE 1970.

From the above it becomes clear that the control and structure of secondary school geography education in South Africa is determined by the interplay between departments of education, the JMB and the CHE. These bodies have the power to implement or retard change through their ability to control the syllabus and school leaving examinations as well as the employment and service conditions of geography teachers. Since 1970 the JMB and CHE in particular have initiated both syllabus and examination changes at secondary school level. As a result many geography teachers perceive the post 1970 period as one of rapid and appreciable change in the nature of South African secondary school geography.

Perception of the extent of the change is influenced by differing perspectives regarding the expected nature of change in geography education. Teachers normally perceive change from an egocentric viewpoint, i.e., the amount of change they, as individuals, have had to undergo. Educational planners, on the other hand, evaluate change in terms of the outcome of educational experiences i.e., has change led to the achievement of the aims and objectives of the syllabus? In the following sections changes in the position of geography in the senior secondary school curriculum, in syllabus, in matriculation examinations and in teaching methodologies will be considered.

1.3.1 The position of geography in the secondary school curriculum.

The relative importance of geography in the South African senior secondary school curriculum may be evaluated in at least two ways, i.e., by pupil enrolment and by the

subject's numerical status relative to alternative subject electives in the senior secondary school curriculum.

1.3.1.1 Senior secondary school geography pupil enrolment.

The number of pupils taking the subject in the final year of schooling (standard 10) provides an indicator of geography's growth. Statistics reflecting geography pupil enrolment at standard 10 level are available from two sources, viz., Annual Reports of the Directors of Education and the Annual Reports of the Central Statistical Services. It should be noted that statistical information relating to education is often difficult to obtain. Problems encountered in this research resulted from :-

(i) the segmented nature of the organisation of education in the country (18 departments of education, each controlling the education of secondary school pupils).

(ii) the political and organisational changes which have taken place in the education system since 1976 (Independence of Transkei, Bophuthatswana, Ciskei and Venda as well as the incorporation of 'Asians' and 'Coloureds' into the tricameral parliament in 1985).

(iii) the differing formats, presentation and organisation of data used by different education authorities.

In addition to the above, a particular problem in establishing standard 10 geography pupil enrolment is the fact that at the time of writing, the most recent Central Statistical Service Reports published on Education for 'Whites', 'Asians' and 'Blacks' are for 1979 and for 'Coloureds', 1977. As a result 1979 was taken as a cut-off point for the purposes of this research and the number of 'Coloured' pupils estimated by increasing the 1977 figure by

the exponential growth rate for this group between 1970 and 1977.

One third of all 'White' and 'Black' secondary school pupils took geography as a matriculation subject in 1970 and this situation still exists ten years later (Table 1.1). While there was little percentage change in 'White' and 'Black' pupil choice of geography as a senior secondary school subject, there was a percentage decline in 'Asian' and 'Coloured' enrolment between 1970 and 1979. Although the change in the number of 'Coloured' pupils was small, the decline in the number of 'Asian' matriculants was large. The magnitude of the percentage decline (61%) in 'Asian' geography enrolment should be treated with suspicion as inspectorate consulted on this issue are of the opinion that the published figure for 1979 is incorrect. As far as they are aware geography education in 'Asian' schools is in a very healthy position as far as pupil enrolment is concerned, and has always been so. Ignoring the 'Asian' figure for 1979 it is clear that geography as a subject has maintained its overall position in the South African secondary school curriculum.

Table 1.1 indicates the dominance of 'Whites' in the secondary school system. Pupil enrolment figures for 1970 clearly indicate that 'White' departments of education have the greatest number (72%) of geography pupils in South Africa. In 1979, 64% of all matriculation pupils (and 59% of geography pupils) were 'White', yet in 1980 'Whites' between the ages of 15-19 years comprised but 16% of the total South African population (excluding the Republics of Transkei, Bophuthatswana and Venda).

It is unlikely that the relative dominance of 'Whites' in geography education will persist into the 1990's. The investigation undertaken by the Institute for Futures Research (1984) into perspectives for South African education, highlights the fact that the number of pupils in 'White' and 'Asian' secondary schools will decline by the year 2000 but increase sharply in 'Coloured' and 'Black'

PUPIL ENROLMENT IN STANDARD 10 GEOGRAPHY COURSES IN SOUTH AFRICA (1970-1979)

	WHITES		ASIANS		COLOUREDS		BLACKS		SOUTH AFRICA	
	Total	Geography	Total	Geography	Total	Geography	Total	Geography	Total	Geography
1970	36433	10148 (28%)	2726	2187 (80%)	2046	1450 (71%)	1053	378 (36%)	42258	14163 (34%
1977					6234	3760 (60%)				
1979	53732	16711 (31%)	7446	1401 (19%)	7281 +	4337+(60%)	*15275	* 5830 (38%)	83734	28279 (34%
% increase 1970-1979	47,4	64,6	173,1	-35,9	204,6	159,3	1350,6	1442,3	98,1	99,6

SOURCES

Dept. of Statistics, Report No. 21-01-05, Education Whites, 1970.
Central Statistical Services, Report No. 21-02-14, Education Whites, 1979.
Dept. of Statistics, Report No. 21-03-04, Education Schools for Coloureds and Asians, 1970.
Dept. of Statistics, Report No. 21-03-11, Education Coloureds and Asians, 1977.
Central Statistical Services, Report No. 21-03-13, Education Asians, 1979.
Department of Bantu Education, Annual Report for the Calendar Year 1970.
Dept. of Education and Training, Annual Report, 1979.

* Incorporates Total Standard 10 numbers in state, community, farm, mine, factory, hospital and scheduled schools in White areas and the Black states of Ciskei, Gazankulu, Ka Ngwane, KwaNdebele, KwaZulu, Lebowa, QwaQwa, Venda. (No Transkei or Bophuthatswana numbers are included).

\+ Estimates of pupil numbers based on pupil increase between 1970 and 1977.

secondary schools. This will bring about fundamental changes in the future structure and nature of education in South Africa. Pupil enrolment in 1985 already shows evidence of a decline in 'White' secondary school numbers. In contrast, the rapid increase in 'Black' population growth rate (at present 2,76%) combined with the phasing-in of compulsory education for this group will result in a very large increase in 'Black' secondary school pupil enrolment. (Preliminary investigation reveals that in 1985 'Black' geography matriculation pupils totalled more than all other groups combined.)

The implications of demographic trends for geography and its position in the South African secondary school curriculum of the future are far from clear. It would, however, seem reasonable to assume that the ability of geography to attract 'Black'pupils in the senior secondary phase, will be vitally important to the future well-being of the subject. In this regard the comments of Magi (1981, p.145) regarding 'Black' university students' perceptions of school geography are disquieting, as is his statement that "many students who supposedly want to know more about people and places do not take geography simply because the subject continues to increase in disrepute".

Notwithstanding the above, geography in South African secondary schools is in a healthy position at present. Whether the subject will retain its relative position in the curriculum of the future will, however, depend on the response of geography educators to the challenges resulting from political and demographic factors operating within the country and the associated educational changes which are inevitable.

1.3.1.2 The position of geography in relation to other senior subject electives.

It is not possible to obtain pupil enrolment figures, by subject choice, for all South African senior secondary schools. The Cape Education Department does, however, publish statistics regarding the number of pupils enrolled

for subjects at the matriculation level. These provide an indication of geography's performance relative to the growth of other subject electives at the senior secondary level (Table 1.2). As it is the second largest single department in the 'White' education system it is reasonable to expect that trends in pupil subject choices will parallel those existing in 'White' education generally. Unfortunately these trends will not, however, reflect the position in 'Asian', 'Coloured' and 'Black' education.

Between 1970 and 1979 the number of pupils taking geography as a subject in the Cape Senior Certificate Examination at the end of their standard 10 year increased by 110%, which is similar to the change identified in South Africa as a whole (Table 1.1). (It is interesting to note that this percentage increase is very similar to that identified by Proctor (1986) for CSE geography candidate enrolment for the same period in England and Wales.)

Compared with other common subject choices depicted in Table 1.2 geography experienced the greatest percentage increase in pupil enrolment between 1970 and 1984. Together with accountancy and mathematics, the subject exhibited a percentage increase in excess of that occurring in total matriculation enrolment experienced during this period. The largest increase in enrolment occurred between 1974 and 1975 which coincided with the implementation of the new JMB geography core syllabus (1973) at matriculation level. Enrolment figures for physical science, biology and history all exhibit increases which are below the overall percentage examination candidate increase for the period (1970-1984). Pupil enrolment in history, traditionally the subject most in competition with geography at the senior secondary level, has remained almost static with an increase of only 45 candidates in 1984 over the comparable 1970 figure. This is a drop of 17% from the 1977 peak. In 1984 geography pupil enrolment was almost equal to that of history and if the trend of the past 15 years continues, is expected to shortly exceed it.

CAPE SENIOR CERTIFICATE EXAMINATION - CANDIDATE NUMBERS IN SELECTED SUBJECTS (1970-1984)

Year JMB GROUP	Mathematics B/F	Biology C	Physical Science C	History E	Geography E/F	Accountancy F	Total No. of Candidates
1970	4869	6062	3721	4605	1988	3416	8982
1971	5163	6200	3354	4911	2444	3588	9092
1972	5360	6619	3268	5032	2709	3786	9579
1973	5212	7155	3270	5113	2953	3820	9995
1974	5602	7547	3632	5063	3142	3798	12107
1975	6044	8511	3733	5031	3651	4203	12618
1976	6858	9151	4288	5538	3644	5950	14084
1977	7535	9403	4594	5632	3616	5738	14078
1978	7545	9418	4671	5215	3930	6087	14250
1979	8103	9427	5058	5407	4175	6248	14403
1980	10290	9450	5207	4924	4207	6275	13207
1981	8946	9685	5604	5809	4227	6459	14549
1982	9017	9799	5722	4647	4368	6698	14621
1983	9275	9698	6038	4544	4148	6940	14646
1984	9623	9625	6242	4650	4456	7236	15309
% increase 1970-1984	97	58	67	0,9	124	111	70
Exponential Growth Rate % p.a.	5	3,4	3,8	0,6	5,9	5,5	3,9

SOURCE: Provincial Administration of the Cape of Good Hope, Director of Education Reports : 1970-1984

TABLE 1.2 CAPE SENIOR CERTIFICATE EXAMINATION ...

approach. This report no doubt heralds the beginning of a process of subject accountability. A move towards a more technically or vocationally orientated secondary school education in South Africa will mean that geography teachers may soon have to justify the inclusion of the subject in the school curriculum. Unless education planners are convinced that geography prepares pupils for living in a dynamic world, the subject will be perceived to have little value in the secondary school curriculum of the future. Pointing to increased pupil enrolment as evidence of the need for geography will not necessarily impress planners concerned with assessing the way in which the aims, objectives and educational practices of the subject relate to the overall thrust of the senior secondary school curriculum.

1.3.2 Geography syllabus change.

The content of South African secondary school geography is set out in the JMB core syllabuses. Since 1970, secondary school syllabuses have twice been revised, *viz.*, in 1973 and 1983. These revisions brought about marked change in geography syllabus content, aims and objectives. In particular the 1973 revision affected syllabus content and that of 1983 focused on the aims and objectives of the subject. These changes need to be discussed in order to evaluate their effect upon teacher practice and the quality of geography education experienced in schools.

1.3.2.1 Syllabus content.

The 1967 syllabus (which remained in use in senior secondary schools until 1973) consisted of three major sections which were taught over a two year period. These were :-

Section A
- The earth as a planet.
- Atmosphere.
- The earth's crust and land forms.
- Cartography.

Section B
- South Africa.

Section C - Regional geography (Europe, North America, Asia, Africa, South America and Australasia).

As can be seen above, this syllabus was largely physical and regional in content and clearly out of step with the academic thinking of the 1960's and early 1970's (Nightingale, 1985). Nicol (1974, p.105) commenting on geography education in this period remarked that "school geography, especially at the matriculation level, was burdened by an outmoded, fact-orientated syllabus which was a rote learner's dream".

As a result of agitation by academics, a general decree by the Minister of National Education called for a revision of school syllabuses in 1970. Subsequently the Inter-departmental Geography Syllabus Committee, after consultation with interested parties, revised the secondary school geography core syllabuses during 1971 - 1972. The revised syllabuses were implemented in 1973 except in Cape Education Department schools, where they were introduced in 1974. Nicol (1974), a member of the geography core syllabus committee, saw the major differences between the 1973 and 1967 syllabus which it replaced as:-

(i) a shift in emphasis from a concern with factual information towards an understanding of concepts.

(ii) a reduced amount of regional content and an increase in systematic geography.

(iii) the public examination of only the standard 10 year of the theory section of the syllabus, as opposed to the previous situation where two years of theory was examined.

(iv) the introduction of a one hour practical examination at the end of the standard 10 year.

The syllabus change of 1973 brought South African secondary school geography content into line with the 'new' approach to geography in the universities at this time. Academically, the 'new' geography which replaced the 'old' regional geography, contained three major trends. These were a theoretical approach which was conceptually based, a behavioural bias which linked geography with the human or social sciences, and the use of quantitative as opposed to descriptive methodologies (Dunlop, 1976). These trends are clearly seen in the South African secondary school geography syllabuses of 1973.

The 1973 geography core syllabuses were generally welcomed by academics as they brought the subject at secondary school level into line with that taught in tertiary institutions. Teachers, on the other hand, while recognising the need for a new syllabus and approach to school geography, were less enthusiastic in their praise (Earle, 1976). Teacher criticism of the 1973 syllabuses were generally related to :-

(i) a lack of guidance and the non-availability of supplementary material with regard to the teaching of new content sections (van der Merwe, 1982).

(ii) the large amount of material which was included in the syllabus (in particular at the standard 10 level) which overburdened both teacher and pupil (Ledger, 1978).

(iii) the degree of difficulty, which was too high for many of the pupils in both higher and standard grades (van der Merwe, 1982).

(iv) the lack of integration of subject matter as a result of the new systematic nature of the syllabus (van der Merwe, 1982).

The 1973 syllabuses ushered in a new approach to geography education within the country. The move from a regional to a systematic approach reflected a change in the perception of the purpose of school geography. In certain respects the shift in content moved the subject away from an emphasis on factual information about South Africa and the world, towards an appreciation of concepts relating to man-environment interaction as well as the development of geographical skills.

Between 1973 and 1983 secondary school geography syllabus content remained unaltered except for minor departmental deletions. In 1983 the Inter-departmental Geography Syllabus Committee was reconstituted by the JMB and set about revising the secondary school core syllabuses. This work culminated in a revised core syllabus which was implemented and phased into secondary schools in 1985. The content of the 1983 JMB secondary school geography core syllabuses encompassed four major academic traditions similar to those suggested by Pattison (1973). These are the man-land relationship, spatial perspective, regional viewpoint and earth-science traditions. Syllabus content attempted to reflect the nature of these traditions by creating a balance between physical and human geography as well as emphasising the integration of man-environment relationships.

Changes in content between the 1973 and 1983 core syllabuses are few and consist largely of the exclusion or amendment of small sections of the 1973 syllabus. The following are the most obvious changes:-

(i) the standard 9 oceanography section is termed 'the significance of the oceans'. Pupils are expected to learn about oceans as major sources of food, the role of oceans in

climate control, world trade and marine exploitation, as well as ocean management problems.

(ii) the standard 10 rural settlement section has been enlarged to include the definition, function and depopulation of rural areas as well as the use of planning and development strategies.

(iii) the standard 10 syllabus includes a new section termed 'ecosystems, environmental balance and conservation' which deals with ecosystem concepts, ecological processes (energy flow, nutrient cycling, and self-regulation) and human impact on the ecosystem (imbalance of ecosystems, environmental conservation and management).

The 1983 secondary school geography syllabus change did not decrease the quantity of information to be assimilated by the pupils. Although certain sections were trimmed, e.g. regional geography, this was more than compensated for by the inclusion of new content e.g. rural development and the inclusion of an environmental education/biogeography component at the standard 10 level. The large amount of content needing to be taught may pressurise many teachers into using practice which will promote the rapid assimilation of knowledge rather than the development of concepts, skills and attitudes.

1.3.2.2 Syllabus aims and objectives.

The 1973 JMB secondary school geography core syllabuses did not include any guidance for teachers regarding the aims and objectives of geography education. Responding to this unsatisfactory state of affairs, certain departments of education set up committees to write general introductions to the syllabuses e.g., the Natal and Transvaal Education Departments. These introductions were short, generalised

statements regarding the overall aims of geography education rather than specific educational objectives relating to syllabus content. Other departments, however, such as the Cape Education Department, provided no teacher guide to the aims and objectives of the 1973 geography secondary school syllabuses.

The most recent JMB secondary core syllabuses (1983) include a comprehensive introduction setting out the general aims of geography education as well as specific objectives regarding syllabus content (Appendix B). The aims and objectives are concise and teachers are left in no doubt that geography as a subject should develop pupils' geographical concepts, skills, attitudes and values.

The overriding goal of the syllabus is to develop the 'whole' pupil and not merely impart geographical knowledge. The syllabus guide stresses that education should develop pupils with enquiring minds and an eagerness for further study. The most important aims are for pupils to :-

(i) acquire and develop intellectual skills and abilities which will encourage on-going education.

(ii) adjust to a society that is undergoing rapid and far-reaching social, economic and political change.

(iii) enter the world-of-work that is becoming increasingly more technologically orientated.

(iv) develop their moral and emotional (affective) attributes.

(*JMB Core Syllabus Guide for Geography, Standard 8, 9 and 10*. 1983, p.2-3).

The general aims of the 1983 syllabuses make it clear that the subject is no longer solely concerned with teaching

pupils facts about the world, providing them with knowledge and developing pride in their country and its peoples. These aims emphasise a move in South African geography education towards a pupil-centred approach with minor utilitarian concerns. This suggests a break with the Christian National stress of the past. Afrikaner Nationalist dominance of the country is being challenged, and although Christian National Education is still emphasised as an overall goal of general education in South Africa, some cracks are perhaps appearing. In a period of change a pupil-centred approach is likely to find favour because of its apparent political neutrality and its emphasis on conceptual development which aligns the subject with the present approach in the universities.

The utilitarian aim expressed in the syllabus is a recent thrust in South African geography education and reflects the need for school geographers to demonstrate the utility of the subject. This results from the desire to address the challenge of future moves toward technical and vocationally orientated education within the country. Although the liberal education value of geography at school level is still of importance, the 'Third World' nature of South Africa and its economy will increasingly demand that the subject becomes more utilitarian in its approach if it is to maintain its place in the general school curriculum.

The specific objectives of the secondary school geography syllabus are classified into four major categories, i.e., knowledge, skills, perception and appraisal. Knowledge presented to pupils must be meaningful and useful and should not be taught as an academic exercise but applied to everyday situations. Pupils must be made aware of the links that geography has with other subjects and develop an appreciation of the unity of knowledge.

Geographical skills should be taught in relation to the abilities and maturity of pupils. Skills must be developed to help pupils organise knowledge and should be transferable to new situations.

Perception objectives concern the development of pupil awareness of the process of environmental perception and the development of resulting attitudes, values and behaviour. It is through the process of perception and cognition that pupils develop geographical concepts. In order to achieve these objectives pupils are to be actively involved in the learning process and teachers are encouraged to engage pupils in decision-making and problem-solving exercises.

In terms of appraisal, geography teachers are expected to develop specific attitudes and values in pupils based upon geographical and environmental concepts. In this regard teachers must stimulate the pupil's affective domain in order to motivate the investigation of values and attitudes underlying geographical patterns. Pupils must develop an understanding of the interdependence between man and man, as well as man and environment. Accordingly, they should acquire caring, tolerant attitudes towards the environment and those with differing cultural, socio-economic and political outlooks from their own.

Together, both the aims and objectives of the 1983 secondary school syllabuses emphasise that geography content is to be taught in such a manner that the subject helps develop pupils' concepts, skills, attitudes and values. It is clear that teaching content information is not the major aim of the subject.

1.3.3 Examinations.

The first matriculation papers based upon the new core syllabus were written at the end of 1975 (except in Cape Education Department schools). For the first time a practical examination was introduced in order to test pupil understanding, interpretation and skill in mapping and aerial photography. The practical matriculation paper was of one hour's duration and worth 80 marks out of a total 400. The theory paper consisted of three sections; physical (climate and geomorphology), human (rural and urban settlement), and regional geography (South Africa). While

physical and regional geography had been examined previously, 1975 was the first year in which rural and urban geography were included in the matriculation examination.

In an analysis of the educational objectives of the JMB and Transvaal Secondary School Certificate examination papers between 1926 and 1980, Levy (1984) found that the secondary school geography matriculation examination was almost entirely orientated towards the factual testing of regional geography content. Since 1975, however, there has been an improvement and matriculation papers have shown a gradual incorporation of questions testing translation (restating knowledge in own words or giving a concrete example of an abstract idea); interpretation (giving reasons, showing cause-effect relationships, summarising or concluding from objects of evidence) and application (applying previous learning to new situations, applying abstract knowlege in a practical situation). Levy's (1984) analysis did not, however, find any questions which could be classified as testing the ability of pupils to analyse (distinguish fact from opinion and hypothesis; show interaction or relationships; infer purposes, points of view, thoughts and feelings), synthesise (formulate hypotheses) or evaluate (evaluate from evidence).

Although the move away from factual recall is encouraging, knowledge of specific syllabus content remains the major requirement of the majority of geography matriculation questions. Translation and knowledge of specifics accounted for 70% of the required response from matriculation questions in the 1980 JMB and Transvaal Secondary School geography examinations (Levy, 1984). Research on Cape Education Department geography matriculation papers between 1980 and 1984 reveals much the same trend. Although a decline in the number of questions testing content recall is evident, they still comprise the major part of the examination paper (Mostert, 1985). The findings above reflect the situation existing in all geography matriculation papers set in South Africa.

Reasons for the preoccupation of geography matriculation questions with factual recall are difficult to establish with any degree of certainty. It is felt, however, that a major reason is implicit in the statement by Levy (1984 p.107) "that there is a correlation between the content of the textbooks and the examination papers with regard to the educational objectives they are fulfilling". Perusal of geography textbooks used in South African secondary schools indicates that they are largely filled with factual information with little or no stimulus material. This is because many still adopt the outdated philosophy that geography is a content-based subject which develops good citizens by means of teaching facts about the country and the world. Textbooks generally do not endeavour to develop geographical concepts, skills, attitudes or values in pupils. Discussions with examiners indicate that in certain instances their questions are influenced by the amount and type of material contained in standard 10 texts. Given such dependence upon textbooks it is not surprising that a bias towards the use of factual recall questions exists.

A further change in geography examination content brought about by the implementation of the 1973 syllabus was the move away from the use of composite essay type questions in the matriculation examination. This change occurred because examiners felt that essay questions encouraged pupils to 'spot' topics thereby rewarding the unthinking regurgitation of previously learnt information. Accordingly examination questions since 1975 have progressively been structured, thereby testing pupil knowledge in a wider sphere. Structured questions are usually based upon pupil responses to maps, tables, graphs or diagrams. Recently, however, discussions with examiners reveal that the use of structured questions has also created problems. It has been found that in many instances questions based upon stimulus data require pupils to do little more than apply their knowledge in a mechanical fashion to the situation illustrated. Personal experience with the setting and marking of matriculation questions indicates that for many pupils diagrams form a framework upon which they unquestioningly hang facts learned

from teachers and textbooks. Due to the problems emerging from the use of structured questions in the matriculation examination there is a growing feeling among examiners that essay type questions, which enable pupils to display not only their knowledge of syllabus content but higher order abilities such as synthesis, should be reintroduced. Although the majority of questions in the matriculation papers can still be expected to be of the structured type, the inclusion of essays will provide the opportunity for 'good' pupils to display their abilities with little disadvantage to those with lesser capabilities.

1.3.4 Teaching practice.

Accompanying syllabus and examination changes has been the concomitant need for teachers to employ teaching practice which fosters the development of pupil concepts, skills, attitudes and values. Accordingly, in-service courses in the 1970's often focused upon the use of pupil-centred teaching methodologies which actively involved pupils in problem solving and decision-making. These courses introduced teachers to methodologies such as discovery worksheets, simulation games, role plays and the use of models, and encouraged the increased use of fieldwork, statistical diagrams and visual material. The adoption by teachers of pupil-centred methods of teaching has, however, been very slow. Generally in-service courses have been more successful in improving content knowledge than improving the manner in which the subject is taught. In this regard Levy, (1984, p.211) states that "although content of the 'new' geography has been accepted by teachers in South Africa, the methodology of the subject is not widely used. There are many teachers who still resist the use of the techniques of teaching associated with the new geography". The effect of teacher resistance to the use of pupil-centred practice frustrates efforts to improve the quality of geography education in secondary schools. Teachers should be persuaded to treat pupils as active participants in learning experiences if they wish them to develop geographical concepts, skills, attitudes and values.

An appreciation of this need (to increase the use of pupil-centred methodologies in geography education) is clear from the most recent JMB core syllabuses (1983) which include a section setting out teaching guidelines for school geography. This is the first time the JMB has formally addressed itself to the problems of methodology choice in geography education. In the guide (1983) teachers are given suggestions regarding teaching approaches to syllabus content and guidelines for the use of appropriate teaching methodologies (Appendix B). Teaching techniques recommended are those which are enquiry-based and pupil-centred in nature. Most techniques relate directly to the development of geographical skills in pupils, e.g., use of aerial photographs, maps, satellite images, statistical diagrams, quantitative techniques, fieldwork and research techniques. The guide does not, however, recommend or discuss in detail the use of any particular pupil-centred teaching methodology, but the overall tone leaves teachers in no doubt that they should actively involve pupils in the learning experience.

1.4 CONCLUSION.

Geography education is firmly established in the South African secondary school curriculum. In terms of its ability to attract pupils at the senior secondary phase of education the subject performs well compared with other competing subject electives. Teachers, while taking comfort from geography's role in the past, need to prepare themselves for future challenges to the position of the subject in the secondary school curriculum. Demographic and political changes occuring within the country, coupled with the 'Third World' nature of the majority of the society, are set to bring about a re-evaluation of the education system. As such it is likely that the role of geography in the secondary school curriculum will be questioned.

While geography teachers in South Africa are capable of theoretically justifying the intrinsic worth of the subject

in the secondary school curriculum of the future, a more difficult task will be to ensure that the teaching of geography lives up to its educational promise. It is a fact that in South Africa the possibility of what geography could achieve in terms of developing pupil concepts, skills, attitudes and values is not normally seen to occur in practice. Holmes (1976, p. 272), in discussing the state of South African education, could have been referring specifically to geography education when he states "we tend to lose sight of objectives in our preoccupation with completing the syllabus and gaining distinctions in matriculation".

Although the years since 1970 have been marked by changes in syllabus and examinations, apparently little change has occurred in the manner in which geography is taught. As a result the positive benefits of change have not been as marked as they might have been. Discussions with teachers reveal that most do not question the use of teacher-centred methodologies. This is particularly worrying, for if geography is to maintain its position in the school curriculum of the future, it needs to be conceptually rather than factually based. Bailey (1985, p.50), discussing this issue and responses to change in British geography education, notes that although the purposes for which schools exist in the eighties may not be all that clear, geographers at least "know that we have to try to educate for adaptability and to teach our pupils to learn for themselves". Unless South African geography teachers are prepared to echo these sentiments, and adopt teaching practice which encourages pupil development, it will become increasingly difficult to justify the subject's place in the secondary school curriculum and in the South Africa of the future. Geography education, to be of value to pupils in a rapidly changing environment, must promote the analysis and application of knowledge through problem solving, decision-making and social action (Kracht and Boehm, 1980, p.104-105).

CHAPTER TWO

SOUTH AFRICAN SECONDARY SCHOOL GEOGRAPHY EDUCATION - A TYPOLOGICAL ANALYSIS.

South African geography teachers are not alone in facing the challenge of ensuring that the subject remains relevant to the needs of pupils and society. Although education within the country operates as a closed system it is open to ideas emanating from outside its boundaries. In the South African case much of the impetus for change has its roots in the experience of geography education in other parts of the world.

In 'First World' countries in particular, geography education has undergone rapid change since 1960 stemming from ongoing alterations in the academic discipline and re-evaluations of the purpose and goals of secondary school education (Graves, 1979). These changes have impacted upon South African geography education due to the fact that 'White' concerns, which are largely 'First World' in nature, dominate the education system in the country. Historically the "British influence on education in South Africa ... has worked towards aligning this country with the ideas and practices of the Western world, Great Britain and North America in particular" (Ashley, 1976, p.259). Of these three it is the United Kingdom which has had the greatest influence upon the thoughts and actions of geography educators within South Africa (Nicol, 1974). It is necessary therefore to have a means whereby one can identify and analyse the pattern of change occurring within an educational system and compare it with the experience of others. In this regard, Graves (1981), noting the differing aims and content of secondary school geography in the international sphere, has proposed a typology of geography education. This typology provides a general framework which is used to identify the nature of geography education within South Africa and compare it with that existing elsewhere.

2.1 THE GRAVES TYPOLOGY OF GEOGRAPHY EDUCATION.

Graves (1981) notes that geography education in Western Europe and North America has passed through three phases each characterised by different aims and content. In phase one, geography is concerned with information about the world which results in "an encyclopedic type of education in which students are judged to be cultured persons only if they are well informed on most subjects and most aspects of life on earth" (Ibid, p.84). The second phase is closely identified with a man-environment paradigm and the study of regions. In this phase pupils learn geographical information which helps develop well-informed citizens, empathetic towards those living in other areas of the world. Geographical content is thus an important focus of education in this phase. Examples of countries characteristic of this phase are "found in southern Europe and Latin America, as well as in many African and Arab countries" (Ibid, p.85). Phase three geography education is concerned with the educational role of the subject where a shift occurs in the perception of the use of geographical content. Content knowledge becomes of secondary importance to the attainment of goals generally associated with pupil-centred education. There is a "modification in geographical education associated with a change in pedagogy that places greater value on process than on product" (Ibid, p.85). By implication third phase geography education is characterised by an emphasis on teaching practice rather than content. Although few countries are entirely representative, the United Kingdom, Australia, New Zealand, France, Germany and the United States of America may be classified as third phase in terms of the nature of their geography education.

Graves postulates that a shift from phase one to phase two geography education occurs with the inclusion of the subject in the secondary school curriculum. In order to justify this incorporation, educational reasons are advanced "although the change agents (are) inspired by the intrinsic worth of geography and its value to a developing economy"

(Ibid, p.85). The practical result is a move away from a preoccupation with factual information towards an appreciation of man-environment relationships. The shift from phase two to three occurs as secondary schooling becomes more democratic in nature and attempts to satisfy the needs of society and pupils. The secondary school curriculum in this phase is expansive and there is a need to trim its content. In third phase geography education there is a tendency for the subject at the junior secondary level to be incorporated with others to form new entities such as social studies (United States, New Zealand and Japan). There is also a severe restriction on the amount of regional material included in courses during this phase.

Motivation for change in the nature of geography education stems from social forces existing within society. Ideas or ideologies which are widely held within a country indirectly affect the nature of geography education by influencing the determination of syllabus aims and content. In a country where phase one geography education occurs, such as India, societies exhibit strong traditional cultural values and an accepted authority structure. During this phase teachers and textbooks are accepted ways of disseminating factual information. Phase two geography education is normally found in countries with socialist or collectivist ideologies where the man-environment thrust of the subject can be used to "develop feelings of pride in the achievements of the nation" (Ibid, p.85). Often geography education in this phase aims to develop 'good citizens' with a love of their country. Phase three geography education on the other hand, is usually found where social ideologies favour the development of individualism rather than conformity in pupils. Graves notes that few countries are truly representative of this way of thinking due to the recognition that education should also serve the interests of the community. This is seen in the United Kingdom where geography education, although third phase in nature, has syllabus aims and content which are becoming more

utilitarian in their emphasis due to prevailing social influences.

The Graves typology of geography education, although understandably general in outline, is extremely useful as it highlights major characteristics identifiable internationally in secondary school geography. It is, as far as can be ascertained, a first attempt to try to distinguish a pattern in the nature of geographical education in different parts of the world. Although the typology can be used to classify a nation's geography education, as well as suggest the social forces which generate it, the classification is, of necessity, based upon the general assumption that the nature of geography education within a country is primarily determined by syllabus aims and content. It needs to be remembered, however, that in the final analysis the nature of geography education received by pupils is determined by teacher interpretation of syllabus aims coupled with their classroom practice.

Research into pupil perception of teaching style in countries classified as third phase in terms of the nature of their geography education, such as the United Kingdom , indicates that classroom practice is often at variance with syllabus aims (Slater, 1976). Similarly, Knight (1976) found that the average New Zealand geography teacher is a directive type of person whose teaching emphasises the acquisition of knowledge, with little time devoted to informal work or group activities which help develop social skills. Teaching practice of this nature is not conducive to the achievement of third phase geography education aims. It would seem, therefore, that the use of syllabus aims and content is not sufficient to classify geography education within a country as third phase in nature. It is suggested that some measurement of the common teaching practices found in the schools should also be made.

2.2 THE CHARACTERISTICS OF THIRD PHASE GEOGRAPHY EDUCATION.

Despite problems involved with measuring whether geography education within a country is first, second or third phase in nature, the typology is extremely useful as a means of conceptualising the major phases through which secondary school geography education may pass. Although the nature of first and second phase geography education have been determined, the final form of third phase geography education has yet to be achieved. However, its content, aims and practice are already well established in geography education literature of the past two decades (Bailey, 1985).

The issue of content in third phase geography education is often problematic. It should be appreciated that at a time when rapid advances in academic geography have resulted in a burgeoning of material available for use in schools, teachers often find the temptation to increase the information component of their courses difficult to resist. However, if geography education is to be third phase in its nature teachers need to break away from the content focus of the past.

The major point in literature concerning the content of third phase geography education is the specification that content should be chosen for its broader educational rather than specific geographical value. The primary justification for inclusion of material is that it should aid the development of concepts, skills, attitudes and values (Graves, 1982; Her Majesty's Inspectorate, 1978; Huckle, 1983; Walford, 1973, 1981a). Walford's 'third phase' view, for example, is that factual content should not comprise the centre-piece of any geography syllabus but rather be the building blocks at the base of the learning pyramid. He argues (1984, p.199) that the use of facts in geographical education should lead towards "active participatory learning both in the field and in the classroom...; towards the development of self-motivated investigation and study of the environment; and towards informed discussion and debate

about current relevant national and global issues". In third phase geography, the learning of geographical facts is thus subordinated to the need to prepare pupils intellectually and emotionally for the world in which they live.

The need to stress process rather than product determines that third phase geography education is characterised by the nature of its teaching practice rather than its geographical content. The term 'teaching practice' includes both the teaching style and methodologies used by geography teachers. Teaching style and methodologies are multifaceted concepts and can be seen to overlap in certain areas of their meaning (Sutcliffe and Whitfield, 1979). Notwithstanding their similarities, it is useful to perceive them as two separate aspects of practice when discussing third phase geography education.

Teaching style refers "to the ways in which teachers differ in the kinds of relationships they establish with their pupils (e.g. formal or informal) and the kinds of social climate they establish (e.g. authoritarian or democratic)" (Rowntree, 1981, p.315). A formal, authoritarian approach is termed a directive teaching style and an informal, democratic one, non-directive. Tuckman (1970) defined directive teaching as consisting of formal planning and structuring of course work; a minimal amount of informal or group work; rigid structuring of individual and class activities; an emphasis on factual knowledge normally derived from textbooks; use of absolute and justifiable punishment; minimal opportunity to make and learn from mistakes; maintenance of formal relationships and classroom atmosphere; and the assumption of total responsibility for grades (In Steinbrink, 1976, p.103-104).

A non-directive teaching style is the converse of that above. Discovery and inquiry-based learning is encouraged; emphasis is on conceptual development rather than the acquisition of knowledge; pupils learn from peers as well

as authoritative sources; and teacher-pupil interaction is of an informal, unstructured nature. It has been found that non-directive teaching environments produce the best results for conceptual development and learning (Clark, 1986; Pratton and Hales, 1986; Stoltman, 1976; Sunal and Sunal, 1985). A non-directive rather than directive teaching style should thus facilitate the goals of third phase geography education.

In contrast, teaching methodologies refer to "the many ways in which teachers can organise their classes, present ideas to their pupils, and use their teaching media so as to advance their pupils' learning. These vary from subject to subject, age group to age group, and teacher to teacher" (Rowntree, 1981, p.315). Teaching methods deal with the 'how' of teacher practice (Graves, 1982) and may be classified into two groups, *viz.*, those that are teacher-centred (talk and chalk, lectures) and those that are pupil-centred (worksheets, simulations, role plays, fieldwork). Teacher-centred and pupil-centred methodologies differ in the amount of active pupil involvement they allow in the learning environment. Teacher-centred methodologies are usually associated with a concern with imparting factual information whereas pupil-centred methodologies seek to develop concepts, skills, attitudes and values.

From the discussion above it is contended that third phase geography teaching practice is characterised by a teaching style which is non-directive in its approach together with the use of methodologies which are pupil- rather than teacher-centred in their nature. Burke (1983, p.256), taking a third phase view of geography teaching practice remarks that it is

> "a conscious style: teachers must expend considerable creative energy in choosing teaching methods and formulating diverse learning experiences that challenge students, require them to use their full range of thinking faculties, and

> allow them to put disciplinary information and ideas into action. Stress is put on giving students the opportunity to learn how to think and think critically, thereby better preparing them for the pursuit of lifelong learning."

Clearly, third phase teaching practice is characterised by its concern for pupil needs which are placed above those of the subject (Graves, 1981).

This focus on pupil-centred teaching practice in third phase geography education is soundly based on research by developmental psychologists. In particular the theories and research of Piaget (1963; 1972) and Bruner (1960, 1966) are important in understanding the basis of geography teaching practice in third phase education (for a detailed discussion on their role see Ballantyne, 1981).

In order that pupils should develop conceptually, both Piaget and Bruner stress the need for active participation in the learning environment. Piaget, speaking at a child development conference stated that

> "My remarks today represent the child and the learning subject as active. Learning is possible only when there is active assimilation ... All the emphasis is placed on the activity of the subject himself, and I think that without this activity there is no possible didactic or pedagogy which significantly transforms the subject" (Piaget, 1972, p.46).

This view is common among educational psychologists who see action and participation as crucial if pupil concepts, skills, attitudes and values are to be developed (Boarer, 1974; Talyzina, 1984). As third phase geography education aims to develop these attributes, great emphasis is placed on pupil participation in the learning experience. Teaching practice, therefore, should involve discovery- and

inquiry-based learning and aim to lead pupils away from the mere manipulation of facts and figures towards deeper conceptual understanding and skill development which will be of use in future decision-making (Burke, 1983; Edynbury *et al*, 1977; Richardson, 1983). At the classroom level the use of worksheets, case studies, simulation games, role plays and fieldwork are methodologies well suited to the achievement of third phase aims. These methodologies involve pupils in concrete learning situations thus allowing geographical concepts to be developed as individuals move from an understanding of particular situations to general geographical principles, i.e., a move from concrete to abstract understanding.

The choice of teaching practice for the development and clarification of attitudes and values, as expected in third phase geography education, is problematic. Due to the sensitivity of the issue, teaching practice needs to be informed by the concepts of balance, neutrality and commitment (Stradling, 1984). The aim of values education is to provide pupils with a balanced viewpoint about controversial issues, not to indoctrinate one viewpoint to the exclusion of others (Edynbury et al, 1977; Hart, 1982; Slater, 1982). Accordingly, teachers need to keep the concepts of neutrality and commitment in tension. Neutrality is a concept which places the teacher in the role "of an impartial chairman of discussion groups, ensuring that all students have their say, treating their opinions consistently, feeding in evidence when needed, and avoiding the assertion of his or her own preferences and allegiances" (Stradling, 1984, p.7). Commitment on the other hand involves teachers in expressing their own viewpoints regarding an issue, but not to the detriment of viewpoints expressed by others during the lesson. By keeping a balance between neutrality and commitment the teacher is able to ensure that indoctrination does not occur. In this regard the teaching style adopted and the methodologies used, are crucial (Stradling, 1984).

In summary, the major characteristics of third phase geography education are as follows:-

(i) the choice of geography content for its educational rather than geographical importance.

(ii) the adoption of a non-directive teaching style which creates an informal classroom environment where pupil and teacher are perceived to be co-workers in the process of learning. The role of the teacher is one of manager and participant in the learning environment rather than an imparter of geographical information.

(iii) the predominant use of pupil-centred teaching methodologies which allow the pupil to participate actively in the learning of geographical knowledge and development of concepts, skills, attitudes and values. Methodologies should be varied and the most suitable chosen for their appropriateness in achieving lesson objectives (Kindra, 1984).

2.3 SOUTH AFRICAN GEOGRAPHY EDUCATION AND THE GRAVES TYPOLOGY.

Given the above characteristics (and the historical development outlined earlier) it is possible to evaluate the nature of South African geography education. Although difficult to define in any exact manner, it is postulated that geography education in the country was first phase in nature until 1876 when the subject was established in all secondary schools. (According to Graves (1981) this is the important change element preceding a move towards the second phase.) Between 1876 and 1910 the subject began to be characterised by second phase aims and content. Differences between geography education in the Republics and Colonies at

this time, particularly with regard to regional geography, ensured that the nature of geography education nationwide only attained second phase status with the Declaration of Union in 1910. Second phase geography education, according to Graves (1981), is normally found in societies where socialist or collective ideologies predominate. This is not the case in South Africa where state capitalism has been the dominant economic force. However, both socialist and collective systems traditionally involve highly centralised control by government, a characteristic of the situation existing in South Africa particularly since 1948. Group ideology is also implied in the nature of apartheid education.

Between 1910 and 1983 geography education in South Africa, according to its aims and content, could be classified as second phase in nature. Within the regional and man-environment framework existing during this period, changes were made in syllabus content. Generally syllabus change resulted in the need to update subject content due to alterations occurring in the academic nature of the subject.

Prior to 1967, geography education at secondary school level was predominately regional in its emphasis. Geography education was generally concerned with teaching pupils facts about regions of the world with little or no appreciation of the underlying processes involved in man-environment relationships (Levy, 1984). As a result of dissatisfaction with the factual nature of the subject in the 1960's, academics and teachers with experience of 'new' geography as taught in the United Kingdom and United States at this time strongly supported a move to bring about a change in the aims and content of secondary school geography. This agitation resulted in the secondary school core syllabuses of 1973 reflecting a move away from a regional towards a systematic approach. This move is evidenced by the inclusion of urban and population geography in the syllabuses.

Overall, the 1973 syllabuses were marked by an emphasis on the understanding of man-environment concepts and aimed to develop awareness of geographical theory and skills as well as their applicability to the real world. Consequently the use of fieldwork and mapwork was emphasised (Levy, 1984). In-service courses run at this time also stressed the need for teachers to develop pupils who were good citizens, able to empathise with those living in other parts of the world.

Between 1973 and 1983 geography education within South Africa experienced many of the changes which Graves (1981) postulates move the subject towards the third phase. In particular, the introduction in the 1970's of differentiated education at the secondary level changed the structure of education and emphasised the need for schooling to meet the needs of society and pupils. As Graves (1981) suggests, this change was accompanied by an expanding curriculum although, in this country, the incorporation of geography into social study programmes occurred only at the primary and not at the lower secondary level of education. In South African society during this period there was an increasing appreciation of the need to emphasise not only man-environment but man-man relationships due to the physical, political and social problems facing the nation.

The 1983 geography syllabuses reflect an attempt by geographers to provide content relevant to pupils in a rapidly changing world. Consequently syllabus aims, content and practice are decidedly third phase in nature. There is an emphasis upon the development of geographical concepts, skills, attitudes and values rather than upon the learning of content knowledge per se. Teachers are also instructed to adopt a pupil-centred approach in their teaching practice. Notwithstanding this, it would be misleading and reflect a misunderstanding of the South African education system in general (and geography education in particular) to conclude that geography practice in most schools is third phase in its nature.

The characteristics and extent of commitment to third phase geography education varies greatly from one department of education to another and from school to school. Many teachers, administrators and planners in 'White' departments are ideologically committed to the teaching of the subject within a broad Christian National framework which aims to engender a feeling of national pride - a characteristic of second phase geography education. The strong Calvinistic background of such teachers tends to lead them to adopt practice which is directive and teacher-centred in its approach. Accordingly secondary school geography education is often dominated by rote learning and lack of cognitive skill (Rautenbach, 1983). Geography thus remains framed within the context of Christian National Education through which traditional cultural values are expressed. Furthermore, the subject continues to operate within a rigidly defined centralised authority structure, especially in 'Black' schools.

The racial inequalities existing in South African education and the deprived nature of 'Coloured', 'Asian' and 'Black' education departments and schools, ensure that second phase geography dominates due to a lack of teaching resources, large pupil numbers and unqualified and under-trained teachers. In many schools for black pupils for instance, geography education is unlikely to see third phase aims achieved due to the use of inappropriate teaching practice (Magi, 1981). When considering the practice of geography education in all departments of education in South Africa, secondary school geography fits most comfortably into phase two of the Graves typology. Although the 1983 syllabus aims are third phase in nature, they should be viewed as statements of intent, a mark towards which geography education in the country is heading. Accordingly, the syllabus guide (common to both the junior and senior secondary levels) is in essence an expression of where the subject would like to be, rather than a statement of where it is.

One of the major reasons for the maintenance of second phase characteristics in South African geography education is that the structure and control of education lies firmly in the hands of politicians. Political control of education is extensive and changes to the system are politically, rather than educationally, motivated (Hartshorne, 1986). A reason for this is the fundamental role played by the education system in underpinning the Government's policy of apartheid and the perpetuation of Christian National ideology. Thus Government has taken a hard line and shown an unwillingness to negotiate with educators and pupils demanding educational reform (Smith, A, 1985). However, the HSRC report (1981), together with the school boycotts and riots of the 1970's and 1980's, have brought great pressures to bear upon the system of apartheid education. Developments such as the creation of a single education department to control common functions of all education departments within the country, the announcement that 'Coloured' schools are to open their doors to all race groups and the attempt by parents in some of the more prestigious 'White' schools to admit pupils regardless of race, are examples of recent challenges to the present system. Clearly the rate at which geography education is characterised by third phase practices in South Africa will be influenced by future political and demographic factors operating within the country.

Third phase geography education, with its emphasis on non-directive, pupil-centred practice, normally occurs when well-qualified teachers work with small numbers of pupils. Demographic trends in South Africa, therefore, are likely to work against the movement of geography education towards the achievement of third phase aims and practice. The expected doubling of secondary school pupil numbers between 1983 and 2000 (Dostal and Vergani, 1984) will place considerable strain on educational resources within the country. Should a racially segregated policy continue, different departments of education would experience differing problems. 'White' departments with a stable or declining pupil population could be expected to move more easily towards the

achievement of third phase aims than 'Black' departments with increasing pupil numbers.

Obviously political and demographic forces at work in South Africa are inter-related. Combined they dictate the direction and rate of change towards the achievement of third phase geography education aims and practice in secondary school geography. Although it is impossible to predict the exact form and function of secondary education in the future, fundamental change must occur. It seems inevitable, however, that due to the long history of unequal education in South Africa and the problems of 'historical drag', different schools will proceed towards the attainment of third phase aims and practice at differing speeds should a non-racial, educational system be instituted. Those schools for 'White' pupils with the most favourable pupil-teacher ratios, highly qualified teachers and adequate educational resources are unlikely to change 'overnight' and should therefore move towards geography education which is third phase in its nature. However, in previously deprived schools vast sums of money will be needed to upgrade teacher skills and equip schools and classrooms with the resources necessary to encourage and enable the use of pupil-centred teaching. Until a single non-racial department of education is instituted and starts to rectify inequalities, geography education in the country as a whole will not attain third phase status.

2.4 GEOGRAPHY EDUCATION IN SOUTH AFRICA : TOWARDS THE THIRD PHASE.

Given the racial ideology of the ruling party and the strength of Christian National Education in departmental circles generally, it initially seems remarkable that the 1983 syllabuses exhibit such third phase characteristics. This is until one considers the influence of 'First World' experience upon geography educators in the country. Historically, literature emanating from 'First World' countries, in particular the United Kingdom, has played an

important role in determining the aims and content of South African geography syllabuses (Nicol, 1974).

Journals from the United Kingdom and the United States of America such as *Geography, Teaching Geography, The Classroom Geographer* (until it ceased publication), the *Journal of Geography* and *Contemporary Issues in Geography and Education* are readily available in South Africa and articles in these have been instrumental in influencing the ideas of geography educators in the country. Books written or edited by Bale et al (1973), Boden (1976), Graves (1975, 1982), Hall (1976), Huckle (1983), Jay, 1981; Slater (1982), Stoltman (1976a) and Walford (1969, 1973, 1981a), are used in training courses and have therefore helped determine and disseminate the aims, content and practice of third phase geography education. In addition, the influence of personal contact between geographers should not be underestimated. For example, recent visits by Walford and Dinkele to the country, as well as experience gained by South African geographers in the United Kingdom, have played an important role in influencing the course of geography education within the country.

Journal articles and research in South Africa have followed the lead of 'First World' countries and in recent years encouraged the adoption of geography education aims, content and practice which are third phase in nature. Most of the research supporting a third phase approach concerns syllabus content issues. Work of this nature may be divided into two groups; that involving criticism of existing syllabuses and that advocating the inclusion of new syllabus content. Examples of the former group include the work of Nicol (1974) who supported the 1973 syllabus and the need to develop concepts and skills in geography education; Earle's (1976) review and criticism of the implementation of the 1973 secondary school syllabuses and difficulties facing teachers at the chalk face; Ledger's (1978, 1980) research regarding teacher attitudes towards the 1973 secondary school syllabuses which highlighted problems confronting

teachers and suggested remedial action necessary to improve the quality of geography teaching practice in the schools; Magi's (1981) review of the syllabus and the problems involved with its implementation in 'Black' schools; Ballantyne's (1982) plea for the use of school-based research in future syllabus planning; and Nightingale's (1985) criticisms regarding the 1983 secondary school syllabus and the lack of differentiation between higher and standard grade content.

The latter group, concerned with introducing new content area into the syllabuses, include Hurry (1979, 1982, 1984) who argues for an increase in the teaching of conservation awareness and environmental education in geography; Meadows (1985) who discusses the 'Cinderella' nature of biogeography and advocates the need for ecosystem concepts in the syllabus; Preston-Whyte (1983) who proposes environmentalism as a unifying paradigm for use in school and university geography education; and Henning (1984) who suggests the need for a holistic approach in the planning of geography curricula in order to provide an education which develops pupils' thought processes, cognitive abilities, attitudes and values.

Articles by Earle (1977) and Nicol (1979) have advocated a change in the form of evaluation commonly occurring in South African schools where factual regurgitation, rather than conceptual understanding, is tested. Both articles encourage the evaluation of geographical concepts, skills, attitudes and values. A system of evaluation which demands that pupils exercise their higher order cognitive skills such as synthesis, interpretation and evaluation is recommended by both authors.

South African geographers have, in many instances, used the ideas gained from overseas publications regarding teaching methodologies and applied these to local environments. Examples of such articles are those by Nightingale et al (1981) and Nightingale (1983) concerning the use of

fieldwork; Ballantyne and Attwell (1985) promoting issue-based learning and decision-making through the use of urban trails; and Earle (1985) commenting on the problems and use of textbooks as a teaching aid. Other publications which have encouraged the use of third phase teaching practice are Ballantyne (1983, 1984) and departmental guides written by practising teachers, e.g., Natal Education Department Syllabus Guide (1984).

From the above it is clear that since the 1970's, South African geography educationalists have favoured a move towards third phase aims and practice. However, although a third phase emphasis exists, there are differences of opinion regarding changes which need to be implemented in order to achieve its aims and practice. It appears that the most popular strategy for change is that which seeks to update and revise syllabus content. Those identifying content change as the major factor which needs addressing in South African geography education, are in danger of becoming side-tracked from a more pressing issue *viz.*, how to improve teaching practice in order to achieve the third phase aims of the present syllabus (Ballantyne, 1985). The 1973 syllabus content changes did little to bring about any noticeable improvement in the conceptual abilities or skills exhibited by pupils entering universities or colleges of education. On the contrary, certain matriculation examiners and university lecturers would contend that there has been a decline in the geographical abilities of school leavers. Although minor changes to the syllabus are no doubt desirable, it is contended that these have very little impact upon improving the quality of geography education experienced by pupils. A content-based approach to change in geography education has little impact upon the development of pupils' concepts, skills, attitudes and values unless a change occurs in the manner in which content is taught.

The challenge facing South African geographers wishing to move the subject towards the third phase, is to plan

strategies which ensure that teachers adopt teaching practice which aids the achievement of present syllabus aims and objectives (Ballantyne, 1985). Teacher resistance to changes in teaching practice must be overcome if the third phase aims of the present syllabus are to be achieved. Although high pupil-teacher ratios, poor teacher qualifications and a lack of facilities helps explain the directive, teacher-centred practice found in many schools, much improvement is possible even within the present system. To effect change in teaching practice is no easy task but ignoring the need for it, is to continue with the mistakes of the past in which strategies designed to improve the quality of geography education faltered at the level of classroom implementation.

CHAPTER THREE

TEACHING PRACTICE : SOCIALIZATION AND DECISION-MAKING.

In South Africa changes in geography education have traditionally been imposed from 'above' with little or no investigation of the views of teachers. This has occurred even though the importance of the teacher's role in implementing educational change in South Africa is well established (HSRC, 1981a). Ashley (1986, p.17) remarks that "the most effective way to improve an education system is through its teachers. Their attitudes, their motivations, above all the improvement of their classroom performance, are the keys to success". As it is the teachers who control the pace and direction of educational change and who have the ability to obstruct or facilitate the wishes of planners (Vandenberghe, 1984), strategies for change have led to alterations in the structure and content of the subject while leaving its practice relatively untouched.

In order to implement teaching practice change in South African geography education, it is necessary to examine geography teacher behaviour in the light of research pertaining to the process of teacher socialization and classroom decision-making. Although the two are interconnected, teacher socialization relates to the development of attitudes which determine the overall approach towards teaching practice, while classroom decision-making is more specifically concerned with practical responses in the day-to-day teaching situation.

3.1 TEACHER SOCIALIZATION.

A teacher's adoption of a particular set of attitudes towards teaching style and methodology results from the process of socialization. The term socialization is defined as "the process whereby the individual learns about the social environment and the behaviour and attitudes deemed

appropriate by the groups or community with which he is associated" (Kelvin, 1970, p.259). Socialization in an educational sense focuses upon the development of sets of behaviours and teacher perspectives as they move through training institutions and schools (Lacey, 1977). Research regarding teacher socialization is limited when one considers the importance of the field in relation to an understanding of teaching practice in schools. This lack of interest in the process of professional socialization by researchers stands in contrast to the interest shown by sociologists in other professional settings.

Atkinson and Delamont (1985) identify two approaches towards the study of teacher socialization, i.e., structural-functional and symbolic-interactionism. In their discussion of these approaches they indicate that those taking a structural-functional approach tend to be concerned with identifying characteristic traits of teachers and view the relationship between socialization and practice as continuous. Interactionists, however, focus upon teacher experiences in their working environment and view the process of socialization as involving conflicts of interest between student or probationary teachers and those entrenched in the school system. (The term student applies to those undergoing pre-service education training, and probationary teacher, to those in their first year of full-time teaching.)

The structural-functional approach has proved to be relatively unproductive in so far as it has contributed little to knowledge regarding the process of teacher socialization. The interactionist approach, on the other hand, has been more productive, although there is a need for more ethnographies focused upon the process of teacher socialization (Atkinson and Delamont, 1985). Within the framework of the interactionist approach there is disagreement between researchers regarding the relative importance of training versus school experience in the socialization process. Most research into teacher socialization is concerned with this debate. The intention

here is not to produce an extensive review of this research which is already available elsewhere (Mardle and Walker, 1980; Wragg, 1982; Zeichner and Tabachnick, 1981; 1985), but rather to explain and evaluate major differences of opinion regarding the process of teacher socialization.

Research into teacher socialization has largely been concerned with identifying changes occurring in the attitudes of student teachers as they leave training environments and enter the schools. Many studies have identified an increase in progressive or liberal attitudes amongst students during pre-service teacher training courses, followed by a sharp move towards traditional or conservative attitudes and practices once they are exposed to full-time school experience (Denscombe, 1982; Hanson and Herrington, 1976; Lacey, 1977; McLeish, 1970). School experience is perceived to rapidly 'wash out' training experience (Zeichner and Tabachnick, 1981). It is argued that in the process of socialization, probationary teachers are forced by the school system "to conform to the conventional wisdom and recipe knowledge of those around them" (Hanson and Herrington, 1976, p.61). Denscombe (1982, p.249) explains the reasons for this conformity thus, "classroom experience ... fosters a set of pragmatic beliefs about the job which, by way of contrast with formal educational theory, can be regarded as a 'hidden pedagogy'". Classroom experience clearly encourages the perpetuation of conservative practices and therefore would discourage a move towards the adoption of a third phase approach in geography.

A general conclusion regarding the socialization impact of training and school experience is that "what teachers are doing is learned in school, and if in college there is some consideration of what teachers should be doing, it is not sustained" (Hanson and Herrington, 1976, p.62). The 'hidden pedagogy' of school experience thus wipes out much of the effect of training and is the dominant factor which determines what is taught and how it is taught in secondary school education. Accordingly, school systems prove to be very resistant to change.

A general feature of the research outlined above is that it is more concerned with identifying the relative importance of training and school experience upon teacher attitudes than with the process of professional socialization per se. Studies typically measure the attitudes of individuals before and after they enter schools in a full time teaching capacity and are thus concerned with evaluating the effect and success of pre-service teacher training programmes. Research of this nature covers only a short time period in the process of teacher socialization and is not necessarily representative of the long term perspective. Such research is more suited to the measurement of change than the identification of underlying reasons causing such change. As a result it is apparent that 'before' and 'after' studies are more useful in evaluating the socialization effects of pre-service teacher training than in developing an understanding of the 'life-long' process of teacher socialization.

Those researchers viewing teacher socialization as a process extending beyond teacher training and probationary teacher stages, contend that there is a large amount of stability in individual attitudes as teachers progress into and through the school environment (Hogben and Petty, 1979; Mardle and Walker, 1980; Petty and Hogben, 1980; Zeichner and Tabachnick, 1981, 1985). This viewpoint results from studies investigating the effects of informal as well as formal socialization upon teacher attitudes using teacher interviews or case studies rather than questionnaires.

Lortie (1975), for example, contends that the teacher socialization process occurs informally during the twelve or so years that a teacher is a pupil in a school and formally during the period of pre-service teacher training. He argues that it is in informal situations of exchange, both as pupil and teacher, that lasting attitudes and socialization occurs. This view is reinforced by Mardle and Walker (1980, p.99 and 103) who feel that

> "precourse experience may be more profoundly influential than either the efficacy of training or the colleague control of later years ... Teachers do not become resocialized during their course of training nor in the reality of the classroom, since in essence this is a reality which they never actually left."

Accordingly, this view sees school experience as preceding formal socialization and holds that teacher attitudes towards educational issues are largely established before training commences. In this regard Lortie (1975, p.79) comments, "lessons taught by early yet persisting models rest on chance and personal preference; training in pedagogy does not seem to fundamentally alter earlier ideas about teaching." From this perspective teacher attitudes must firstly be consistent with the teacher's personality and ways of doing things, and secondly be developed in the classroom. Classroom experience is thus of major importance and the influence of common knowledge is limited in the development of teacher attitudes towards practice. In this manner teaching practice is perceived as resulting from a subjective screening process in which a personal criterion of suitability is determined for each individual (Lortie, 1975).

From the above it is clear that those viewing the teacher socialization process from a 'life long' perspective hold personal biography and teaching experience as key elements determining teacher attitudes (Zeichner and Tabachnick, 1981). During the process of socialization, training is perceived as an impotent force which does not supply teachers with a new model or set of attitudes which survive beyond the first few weeks in the school environment (Hogben and Petty, 1979). Rather, anticipatory socialization as a pupil is seen to be influential in developing lasting attitudes towards teaching practice. Attitudes developed in this manner are normally conservative in their nature and although seemingly altered during formal training programmes, are reverted to once a person enters the school

environment as a probationary teacher. Thus the anticipatory socializing effect of classroom experience is perceived as being responsible for secondary school teaching practice becoming "one of the most consistent and persistent phenomena known in the social and behavioural sciences. To put it succinctly, the 'modus operandi' of the typical classroom is still didactics, practice, and little else" (Sirotnik, 1983, p.16-17).

It is clear that a problem with teacher socialization studies is that they have largely focused upon whether probationary teachers are prisoners of the past (anticipatory socialization or pre-service training) or prisoners of the present (institutional pressures emanating from schools) (Zeichner and Tabachnick, 1985). Viewpoints regarding teacher socialization are thus initially confusing as according to Zeichner and Tabachnick (1981, p.8), "there is no conclusive evidence that (the) view of university teacher education as having minimal impact on prospective teachers is any less credible than the more popular view that identifies a progressive-traditional shift in attitudes."

Research thus far, although of interest to those concerned with the development of a theory of teacher socialization, has not produced findings which are specific enough to inform teacher improvement schemes either in pre-service or in-service training. Research has been theoretical rather than applied in its nature; concerned with describing the process of socialization upon teacher attitudes rather than trying to apply research findings in order to influence teaching practice in the schools. The 'ailment' has been well documented but there is little evidence that the cure is being sought.

It is contended, therefore, that instead of attempting to debate the correctness of the viewpoints above, a more constructive approach is to combine the research findings into a single view regarding teacher socialization. This is possible as disagreements in viewpoint may be more apparent

than real and in many instances merely reflect the differing research aims and procedures employed.

Research results, when viewed in career sequence, suggest a general pattern of teacher socialization in which :-

(i) individuals develop attitudes towards teacher practice during the years they spend as pupils in school. As such, students entering teacher training courses have already been socialized for a long period of time and have well-established attitudes towards teaching practice. It can be appreciated, therefore, that teachers through their contact with pupils, play an important role in influencing the attitudes of future teachers.

(ii) students are exposed to theoretical knowledge and practical experience of teaching during the period of pre-service training. Training has the effect of sensitising them to the desirability of using progressive teaching practice in the classroom. Training thus liberalises student attitudes towards educational aims and practice.

(iii) students enter the school environment as probationary teachers and develop their own attitudes towards teaching style and choice of teaching methodologies through a process of trial and error based upon personal experience. In this regard it is generally found that progressive attitudes developed during training are transitory and teachers revert to the original attitudes they developed as pupils. As a result teachers may agree with the theoretical merit of liberal teaching practice but express the view that it does not work in their situation.

It seems clear that research, in order to inform intervention strategies leading to an improvement in teacher practice, needs to proceed beyond a concern with theoretical issues pertaining to the process of professional socialization. In this regard it is contended that greater attention needs to be paid to the identification of factors affecting classroom decision-making by teachers. This approach is particularily relevant in the light of the need to implement third phase geography teaching practice in South African schools.

3.2 CLASSROOM DECISION-MAKING.

It has been shown above that teachers are socialized into behaviour patterns relating to the overall organization of both classroom work and pupil activity. Socialization, therefore, forms the framework within which day-to-day classroom decision-making takes place.

Research into teacher decision-making (which is well established in the educational field) has either analysed teacher behaviour or attempted to establish the behavioural consequences of teacher decision-making upon pupils (Eggleston, 1979). Both approaches rely on classroom observation. Usually the analysis of data establishes cause-effect relationships between teacher decisions, behaviour and educational consequences. A weakness of such research is that it does not concentrate on the act of decision-making nor try to explain and identify factors influencing teacher classroom behaviour. An attempt to remedy the lack of information regarding the act of decision-making is seen in the work of Sutcliffe and Whitfield (1979). Although focusing upon advancing knowledge regarding teacher decision-making, their findings are constrained by their choice of research procedure. The use of video recordings of pupil-teacher interaction to analyse teacher classroom behaviour helps in the identification and description of decision-making but fails to uncover those factors influencing the decisions taken.

Sutcliffe and Whitfield's (1979) research supports Lacey's (1977) view that teacher decision-making is influenced by factors existing both within and without the immediate classroom situation. It appears that teachers are generally allowed a great deal of autonomy in terms of their classroom teaching practice. Traditionally, factors external to the immediate classroom environment, e.g., education department policy, have not actively enforced the use of particular teaching practice upon teachers. Accordingly, personal experience of classroom situations remains the major influence on decision-making relating to teaching practice behaviour. It still remains, however, to ascertain why teachers behave as they do. It is suggested that this information could be gained directly by using questionnaires, case studies and related research methodologies which enable teachers to elaborate on reasons for their teaching practice behaviour.

Teacher decision-making can be divided into two distinct types i.e., reflective or contemplative and immediate or instantaneous (Sutcliffe and Whitfield, 1979). Reflective decisions are informed by training, classroom experience and role interpretation and tend to be made outside the classroom situation. Immediate decisions relate to teacher-pupil interaction within the classroom and are prescribed by individual personality characteristics, life-style, and the momentary context of the interaction.

Logically, the ideal of reflective and immediate decision-making may be related to an individual's teaching practice behaviour. Teaching style is mainly influenced by attitudes stemming from the process of socialization. As a consequence of this largely unconscious process, the choice of teaching style is seen to involve neither reflective nor immediate decision-making. Methodology decision-making in contrast, falls into the reflective category as it involves "a conscious thought process at some time past or present" (Sutcliffe and Whitfield, 1979, p.10). For example, this occurs during the process of lesson preparation. Immediate decision-making occurs as a result of pupil feedback which

may cause deviations to be made in teaching practice behaviour during the execution of a lesson.

Figure 3.1 illustrates the complexity and interactive nature of the variables which may impact upon reflective and immediate decision-making. These variables may be grouped into four major categories *viz.*, teacher variables, teacher training, institutional rules and pupil variables. Teacher and pupil variables vary greatly from one individual to another and from class to class. It is therefore difficult to generalise about these influences and their effects upon relative and immediate decision-making and thus teaching practice behaviour. Teacher training and institutional rules, on the other hand, are relatively easy to identify, are stable in character and form the shared experience of teachers within an Education Department. As such they would seem to be the most obvious factors to be manipulated by planners wishing to effect teaching practice change.

Teaching practice behaviour is often considered to occur as a result of the impact of organisational rules upon teacher classroom decision-making. In this regard Mardle and Walker (1979, p.207-208) have identified major organisational characteristics relevant to an understanding of the process of teacher decision-making from the work of March and Simons published 20 years previously. Excluding training and socialization factors, these involve a predominance of satisficing rather than optimising behaviour. Three variables which affect decision-making are :-

(i) a high degree of routinised behaviour facilitated by the development of performance programmes which obviate the anomic uncertainty of continual optimising.

(ii) specialisation in the division of labour, allowing the development of perspectives focused upon restricted sets of values.

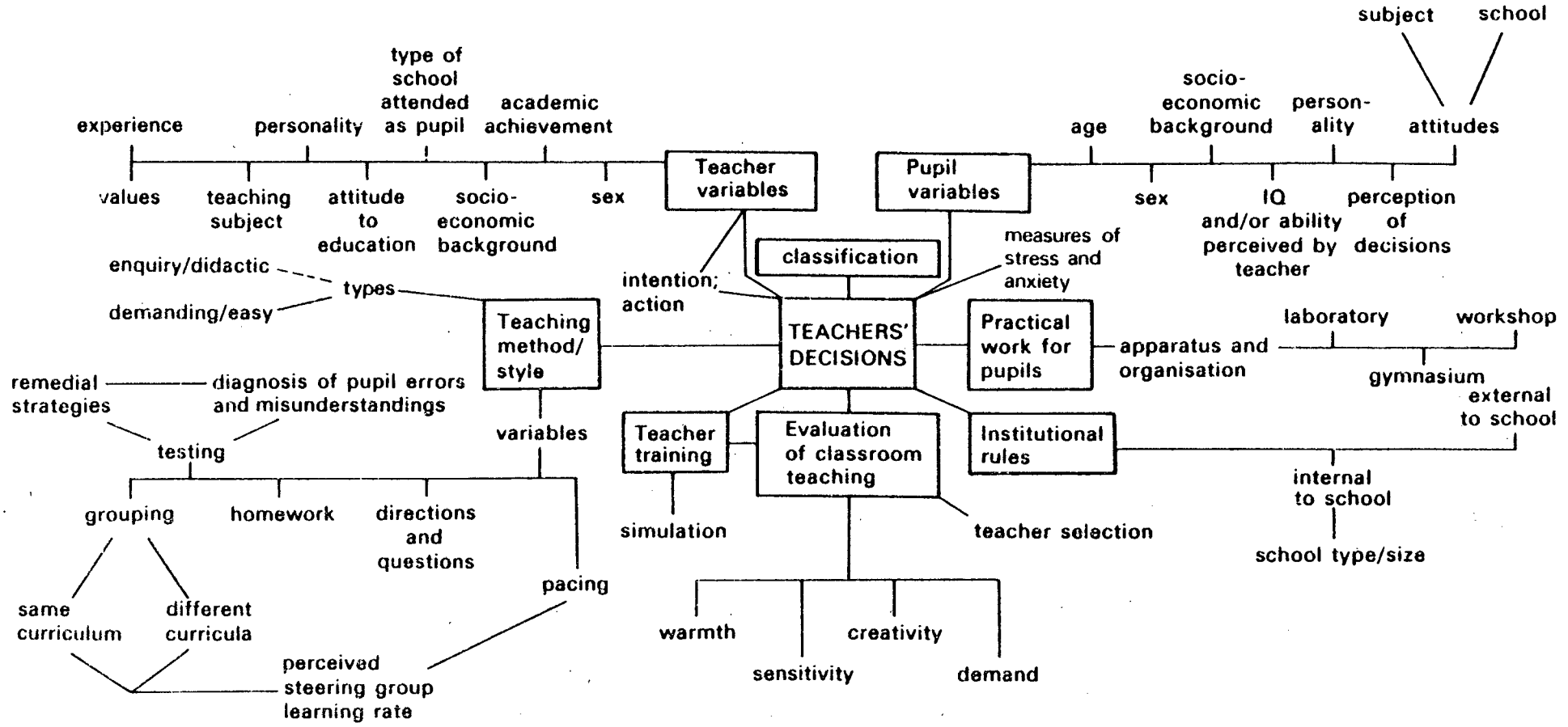


FIG. 3.1 TEACHER DECISION-MAKING

(iii) the development of organisational vocabularies which canalise thought and direct attention to limited alternatives.

Although Mardle and Walker (1979) are aware of weaknesses in these characteristics when applied to school level organisational decision-making, they contend that they have relevance when applied to teacher classroom decision-making. In this regard the concept of teacher satisficing behaviour is particularly useful as it helps to explain differences between teacher attitudes towards the appropriateness of particular teaching styles and methodologies, and the actual use of these in the classroom.

Satisficing behaviour results from teacher perspectives regarding competing pressures, e.g., subject, educationalist or career perspectives (Mardle and Walker, 1979). Due to the many competing perspectives impinging upon the adoption of a teaching style and methodology choice, it is impossible for the teacher to maximise the demands of each. Decision-making therefore takes place within a framework of priorities which vary according to personality differences, the pupils being taught and the organisational situation existing within the school system.

In terms of competing perspectives Keddie has shown that "the classroom situation promotes satisficing on a teacher perspective rather than optimising on an educationalist perspective" (In Mardle and Walker, 1979, p.209). In this way, training experience in terms of educational theory is subjugated to the practical pressures of classroom and school environments (Denscombe, 1982). For example, research has shown that classroom survival and teacher sensitivity to issues involving pupil discipline are important aspects affecting both immediate and reflective decision-making and therefore teacher behaviour (Corcoran, 1981; Denscombe, 1982; Zeichner and Tabachnick, 1981).

Denscombe (1982, p.249) contends that teachers have a "belief in the need to establish classroom control and to

maintain the privacy of the situation as absolute prerequisites for successful teaching." The conflict between educational and classroom demands may be seen to lead many teachers to satisfice in their decision-making and therefore adopt the use of teacher-centred practice. This is not to imply that teacher satisficing occurs as a result of weakness in teacher character but rather that it is impossible to maximise both educational and practice perspectives due to classroom constraints and school organisation.

In summary, teacher decisions regarding both teaching style and methodology choice result from a combination of past and present experiences of classroom situations. Reflective decision-making is most strongly influenced by the process of teacher socialization. In this regard it has been shown that the most important socialization factors would seem to be experiences as school pupil, education student and teacher. Of these, experiences as a pupil are informal and vary from individual to individual. The socialization influences of training and school experience, on the other hand, are similar for most individuals. Their impact upon classroom decision-making is, however, different as training encourages the adoption of liberal, and school experience the use of conservative, teaching practice. Decision-making with regard to classroom teaching practice therefore involves satisficing behaviour as teachers accommodate these two conflicting influences.

Teacher training and organisational structures are formal elements in teacher socialization which form a common experience. Accordingly they seem suitable factors which may be manipulated in order to influence teaching practice decision-making. In this regard school experience needs to be changed in order to encourage the adoption of liberal practices. For this to occur the traditional perception that teaching practice is a personal matter hammered out in the classroom without much consideration of training experience and syllabus aims, needs to be changed. It is contended that training personnel and inspectorate need to

combine to ensure that pre-service training has a long term effect upon the classroom attitudes and practice of teachers and that organisational elements existing in the school system work to reinforce the use of appropriate teaching practice.

3.3 CONCLUSION: ATTITUDES, PRACTICE AND CHANGE TOWARDS THIRD PHASE GEOGRAPHY EDUCATION.

From a consideration of theory it is clear that a geographer's choice of teaching practice is largely determined by the process of socialization and classroom decision-making. Both socialization experience and classroom decision-making interact and reinforce the choice of teaching practice. Accordingly they are difficult to separate in terms of their influence. For third phase practice to occur in South Africa it is necessary for the socialization process to encourage the holding of attitudes which support decision-making that will result in the adoption of a non-directive teaching style and the use of pupil-centred methodologies. Research shows, however, that this is neither simple nor easy to effect even in 'First World' countries. The reason for this is that school experience encourages the holding of conservative attitudes supporting the use of traditional teaching practice behaviour in the classroom, a view which is opposite to that encouraged during educational training. As a result teachers' decision-making is characterised by satisficing behaviour in which organisational concerns dominate over training influence.

The move from second to third phase geography education involves teachers in a fundamental change of attitude towards the use and importance of teaching practice. In order to effect this change, teachers need to free themselves from the conservative attitudes which have traditionally been engendered by school experience. This change is particularily difficult to achieve in South Africa where geography teachers operate within a rigid authority structure which emphasises the importance of the group rather than the individual in society. School experience in

the country does not encourage the adoption of third phase attitudes towards teaching practice. Political factors further encourage the adoption of a directive teaching style while demographic trends, matriculation examinations and textbooks together support the use of teacher-centred methodologies.

Understanding of the interaction between geography teacher socialization and classroom decision-making in South Africa is a necessary prerequisite if change in teaching practice is to occur and the third phase aims of the syllabus are to be achieved. In this regard it is necessary to identify and describe the main elements affecting geography teacher classroom practice. Once these elements, i.e., the component parts of the geography teaching and learning process are described, the relationships between them may be evaluated in order to improve educational practice (Meyer, 1985).

CHAPTER FOUR

TRAINING AND ORGANISATIONAL ELEMENTS AFFECTING SOUTH AFRICAN GEOGRAPHY TEACHING PRACTICE.

The major elements affecting the socialization and decision-making of South African geography teachers, in relation to teaching practice choice, are common to all departments of education. Differences in the impact of elements between departments do exist, however, due to the unequal racial nature of the education system.

Elements may be divided into two categories, *viz.*, those concerned with training experience (which generally attempt to develop liberal attitudes towards teaching practice) and those organisational elements related to school experience (which normally tend to reinforce conservative attitudes towards teaching practice). The relative impact of these elements upon teachers' decision-making directly influences their choice of teaching style and use of methodologies. The major training and organisational elements affecting South African geography teacher decision-making regarding classroom practice are illustrated in Figure 4.1. This figure indicates that choice of teaching practice occurs from the interaction between training and organisational elements upon teacher decision-making. Although teaching practice choice is a personal decision, it is possible to describe and evaluate elements in terms of their potential impact upon the adoption of third phase teaching practice.

4.1 TRAINING EXPERIENCE.

Training experience, as in other countries, occurs in two phases in South Africa, i.e., pre-service and in-service. Pre-service training provides initial academic and educational preparation for teaching while in-service training is concerned with the continuing professional development of practising geography teachers.

4.1.1 Pre-service training.

South African secondary school pre-service geography teacher training is undertaken in universities and colleges of education/training (For a detailed discussion on the recruitment and training of teachers in South Africa refer to the HSRC report of 1981).

As universities are autonomous bodies, the training received by students varies according to the institution attended. Prospective geography teachers at university normally complete a three year academic course followed by a one year post-graduate higher diploma in education. Those attending college can elect to take either a three or four year diploma involving both geography and educational course work.

University courses in South Africa attempt to provide a general rather than specialist undergraduate training and inevitably the content differs in many respects from that included in school syllabuses. As a result teachers often have large gaps in their knowledge of the content they are required to teach in secondary schools. This situation is most noticeable where university courses become academically specialised and/or attempt to broaden the vocational component to cater for students other than prospective teachers. A solution to the content problem is difficult to suggest as it is obvious that undergraduate geography courses cannot be focused solely upon the needs of future teachers (Ballantyne and Dewar, 1983).

Once they have graduated, students enter an Education Faculty. Here they are initiated into the secondary school system during their post-graduate education course. In their post-graduate education diploma courses students are required to take methodology courses in two teaching subjects. Experience in the teaching of geography is gained during teaching practice sessions in the schools. Although teaching practice arrangements vary from one university to another, it is common for students to spend a minimum of six

weeks of their post-graduate diploma course teaching in the schools.

A feature of geography methodology courses run at universities in South Africa (when compared with those run in the United Kingdom), is the large number of students being trained and the high student-staff ratio. At the University of Cape Town, for example, 49 students are at present (1986) being trained by one lecturer. High staff-student ratios limit the type of training received and some courses in the country include little more than lectures. To compound the problem some universities do not have a geography methodologist as a full-time member of staff within the Education Faculty. In these instances courses are run by part-time lecturers who are usually practising teachers. Consequently, these courses are not intensive due to the dual commitments of part-time staff.

Those students attending colleges for their secondary school pre-service training undertake either a three or four year diploma course. The length of the course depends upon the department of education controlling the college and the course structure and teacher qualifications they require. Colleges in South Africa, unlike many of the universities, are racially segregated and standards and requirements vary greatly between institutions.

Colleges training 'White' students cater largely for primary school teachers although certain institutions do offer secondary school diplomas. This is a fairly recent occurrence which has involved 'White' colleges in different partnership agreements with universities (Le Roux, 1980). Colleges for 'Asian', 'Coloured' and 'Black' students do not have formal links with universities. These institutions are administered solely by education departments who are responsible for standards. Unlike their 'White' counterparts, these colleges play an important role in educating large numbers of secondary teachers. This is seen when viewing the qualifications of primary and secondary teachers by race where it is found that 66% of 'White', 80%

of 'Asian', 96% of 'Coloured' and 98% of 'Black' have college diplomas (HSRC, 1981).

The content of college geography courses for secondary students is, in most instances, devised with secondary school syllabuses in mind. In this way students are taught the content they need to use once they become teachers. College students undertake teaching practice many times during their four year course. Consequently, they gain more school experience than their university trained colleagues. Colleges thus prepare geography students more specifically for the school system i.e. both academically and educationally, than do universities. Accordingly, it is contended that college-trained teachers are more likely to be second phase in their attitudes and practice than those trained in Universities where a more liberal viewpoint is generally encouraged.

The effect of geography pre-service training courses upon the socialization and decision-making of teachers in relation to their practice has not yet been ascertained in South Africa. In the light of the earlier discussion on teacher socialization and decision-making, it is hypothesised that the long term effects of university and college training will exert a relatively lesser influence upon teaching practice choice than will school experience.

4.1.2 In-service training.

In-service training of geography teachers is undertaken by education departments (in-service courses, subject inspectors/advisors), geographical associations (talks, workshops and study groups), and universities (post-graduate and degree courses).

In-service education in South Africa affects a very small percentage of teachers in secondary schools. In particular the provision of in-service training for teachers other than 'Whites' is extremely poor (HSRC, 1981). This situation is worrying. If a minimum qualification of a matriculation

certificate and professional qualification is accepted as necessary for school teachers, only 14,5% of 'Black' teachers can be regarded as being adequately qualified compared with 95.1% of 'White' teachers (HSRC, 1981). Furthermore, 91% of secondary school teachers in the Homelands do not meet the requirements of 'White' education departments (van Zyl, 1986). As the influence of training appears to be the major factor encouraging teachers to adopt third phase attitudes and practice, the lack of training of many geography teachers is cause for concern.

Departmental secondary school geography in-service courses are rarely held more than once a year (even in 'White' education). Courses which last longer than a day are rare due to the cost involved with assembling and housing large numbers of teachers at a central venue. In-service courses run on a localised scale are thus favoured by educational authorities. Local courses, being less than a day in duration, often start after school hours and continue into the evening. Teachers therefore bear the majority of the costs incurred in the exercise. Although attendance is generally not compulsory, teachers are keen to attend if they perceive that the programme will provide them with content information related to the syllabus. Experience with the running of localised in-service courses indicates that those which deal specifically with teaching practice are generally not as well received by teachers as those concerned with syllabus content issues. This confirms the observation made previously that geography education within the country is not yet third phase in nature.

Discussions with education authorities reveal that one of the reasons for a lack of in-service training is the general perception that these courses lack sufficient carry-over of ideas and information into the classroom situation to warrant their cost in terms of withdrawing teachers from schools and financing the operation. It would seem, therefore, that the socialization and decision-making impact of in-service courses is not highly rated by departmental planners. As far as can be ascertained, however, no

research has been undertaken to establish the benefits of geography in-service courses in the country.

The impact of subject inspectors/advisors upon the teaching of geography in secondary schools depends largely on the interest and expertise of the individual in the post. Not all departments of education in South Africa have geography subject inspectors/advisors e.g., the Cape Education Department and Transvaal Education Department. In cases such as these the control of geography education is shared among district inspectors/supervisors who often have no formal geography training. There are examples of competent inspectors/advisors whose influence has been very positive in moving teachers under their control towards the achievement of third phase geography education aims and practice. Unfortunately the converse also applies and some inspectors/advisors have been prime instruments in the perpetuation of outmoded practice in geography education (SACHED, 1985).

Departmental inspectors/advisors and geography teacher associations, compile and distribute syllabus guides as well as other material useful to teachers. These guides contain information regarding teaching methods, concepts to be taught, syllabus content and reference sources (Diepeveen, 1983; Jarvis et al, 1985; Natal Education Department, 1984; Nightingale et al, 1981). Their impact on geography classroom practice is, however, difficult to determine. Experience suggests that the impact is limited unless it is either perceived to be directly related to syllabus requirements or provides teachers with material they can use in their lessons. Mostert's (1985) finding regarding Cape Education Department teacher knowledge of the 1983 syllabus guide supports this contention.

The influence of teacher and geography associations is highly localised. Active membership of such groups is generally small and it is difficult to attract teachers to meetings. Notwithstanding this, groups of geography teachers do meet regularly in the larger metropolitan

centres. The Geography Teachers' Association (Cape Town) and Natal Geographical Association (Durban) are examples of predominantly 'White' teacher groups which hold regular meetings/workshops and publish material of use to geography teachers. Although of necessity localised, geography teacher groups play an important role in encouraging the adoption of third phase attitudes and practice by bringing together those wishing to update their knowledge of the content and pedagogy of the subject.

The two academic associations, the South African Geographical Society and the Society for Geography also advance the cause of third phase geography education by involving teachers in regional meetings and national conferences. The associations publish journals bi-annually in which articles of interest to geography teachers are included. In particular the *South African Geographer* has a specific section where geography education articles in both official languages are published. However, no attempt has been made to establish the effect these articles may have upon the attitudes and practice of geography teachers.

Universities in South Africa offer part-time and full-time degree courses of value to geography teachers. The most commonly attended of these are B Ed. courses which generally include a geography education option. Although coursework M Ed. degrees are available, as far as can be ascertained none of these allow teachers to specialise in geography education. Personal experience of B Ed. teachers who have taken a geography education option, would indicate that these courses play an important role in encouraging the adoption of third phase teaching practice. As far as is known, however, no research has been undertaken to investigate the effect of such training upon geography teacher classroom behaviour.

4.2 SCHOOL EXPERIENCE.

Once teachers have completed their pre-service training they enter the schools where day-to-day teaching practice

decison-making is influenced by organisational elements existing within the school environment. In this regard the most common and important elements are seen to be the syllabus, examinations, textbooks, finance, pupils and colleagues.

According to socialization theory, the effect of the above elements upon decison-making is to encourage the adoption of conservative attitudes and teaching practice i.e. a directive style and the use of teacher-centred methodologies. These elements are thus expected to play an important role in determining the quality of geography education teaching practice found in secondary schools.

4.2.1 Syllabus.

The South African geography education syllabus lays down the aims to be achieved and content to be covered in each standard. Accordingly, its impact upon geography teaching practice should be great. However, an analysis of the 1973 syllabus change and its effect upon geography teaching practice, suggests that this was not so. The impact of syllabus change, in the final analysis, served to upgrade teachers content knowledge while leaving their teaching practice much the same as before.

As a result of the 1973 syllabus changes many teachers, sure of the facts in the old regionally based syllabus, found that they did not have the knowledge required to teach some of the new content and concepts. The insecurity engendered by the syllabus content change reflected the preoccupation of geography teachers with imparting factual information. As one set of facts was replaced by another in the syllabus teachers were left feeling insecure. This feeling was heightened by the late arrival of geography textbooks containing the 'new' facts, thereby forcing teachers to find their own resource materials (Earle, 1976).

The 1973 syllabus change and the activity it engendered initially held out much promise for more than cosmetic

changes in secondary school geography education. However, the nature of geography education in the 1980's is not appreciably different from that of the 1960's. Content change did not bring a corresponding transformation in the way in which the subject was taught. Many teachers, once secure in their factual knowledge of new syllabus content, continued to teach the subject in a manner which negated much of the effect that the new syllabus might have had in advancing the quality of secondary school geography education.

According to Ledger (1980, p.63) between 36% and 55% of South African secondary school geography teachers "feel plagued by the present syllabus". This, in the case of the majority of teachers, is largely due to syllabus length and dissatisfaction with the amount of content that needs to be taught. In fact, syllabus overload is often used as a justification for the use of poor teaching practice. Discussions with teachers reveal that many are of the opinion that the geography syllabus shows that educational authorities place greater stress on the mastery of factual information than on equipping pupils for self-inquiry and further study (Ledger, 1978). The hidden agenda of the syllabus is to reinforce the importance of teaching geographical facts and therefore encourage a second phase approach towards the subject.

Teachers adhere to the letter rather than the spirit of the syllabus and are reluctant to deviate from its set content (HSRC, 1981a). This behaviour causes a situation to arise where teachers feel pressurised due to the amount of content they feel must be taught and the time available in which to teach it. In the face of time pressure many adopt a directive teaching style and favour the use of teacher-centred methodologies, *viz.*, talk and chalk, dictation, duplicated notes and the copying or underlining of passages from textbooks. These teaching practices allow the dissemination of content knowledge in as short a period of time as possible. They also have the added advantage of requiring relatively little time for lesson preparation

compared with that needed to prepare non-directive, pupil-centred lessons, *viz.*, worksheets, geographical simulations, group work or fieldwork.

4.2.2 Examinations.

Examinations play a major role in influencing what is taught and how it is taught in secondary school geography education. In a survey of South African geography teachers, Ledger (1980) found that 93% of teachers felt that their teaching practice was influenced by examination considerations. Although this is perhaps understandable when teaching at the standard 10 level (where an external examination is written), it applies equally to the lower standards where examinations are set internally.

Matriculation examination results operate as a feedback mechanism in geography education. Those who teach in a manner which successfully prepares pupils to answer questions conforming to the style and content of examination questions are praised by pupils and colleagues alike. Accordingly, standard 10 geography work is very clearly examination orientated. Class tests, mid-term examinations and 'mock' matriculation examinations are all carefully designed to familiarise pupils with the expected content and style of matriculation questions. Although preparing pupils to cope with examinations is part of a teacher's job, many standard 10 teachers place the educational value of the subject lower than the need to ensure high grades from their pupils.

Due to its undoubted influence upon teachers, the matriculation examination should help encourage the adoption of third phase practice in the schools (Ledger, 1980). Thus far, however, its effect has been disappointing (Earle, 1977) as "teaching tends to be influenced ... by public examinations, and bad teaching too often gets outstanding matriculation results" (Holmes, 1976, p. 267). Geography matriculation questions largely test lower order thinking and there is little need for teachers to concern themselves

with developing pupils' higher order abilities in terms of geographical concepts, attitudes and values. From this perspective it is not difficult to understand why many teachers adopt a directive style and use teacher-centred methodologies, as "optimal methods of teaching content are obviously those which fulfill the same goals and purposes as the chief examiner has in mind" (Marsh, 1985, p.38).

Geography class tests and internal examinations in many secondary schools are orientated largely towards testing factual recall (Nicol, 1979). Mostert (1985) found a progressive increase in the use of questions testing lower order abilities in geography with a move towards lower standards. Standard 6 level questions were almost entirely concerned with testing factual recall. This is a disturbing feature of geography education in South African secondary schools. The excessive testing of factual recall and the almost total lack of questions demanding the ability to synthesise, analyse or evaluate geographical material, is a sad commentary on the quality of geography education in secondary schools. Although the medicine (content) has changed in the post-1970 period, the dosage (number of facts) required for examinations has remained fairly constant. Consequently, geography in many South African secondary schools remains "a burden on the memory rather than a light in the mind" (Hall, 1982, p.1).

From the above it is seen that geography teachers have little incentive to change and adopt third phase teaching practice. Matriculation and school examinations set up a cycle of events rewarding the use of geography teaching practice which is most effective in imparting factual knowledge.

4.2.3 Textbooks.

"More than 90% of what occurs in classrooms - particularly high school classrooms - is shaped by and centres around the textbook" (Maxwell, 1985, p.68). Geography teachers are therefore well catered for as regards content information

directly relevant to syllabuses. South African textbooks, with few exceptions, consist entirely of factual information arranged according to the demands of the core syllabus laid down for each standard. However, they rarely, if ever, contain resource material or include exercises that would help pupils develop concepts, skills, attitudes and values. Because of this, South African textbooks are easily misused by teachers to reinforce an outmoded, factually-based, teaching approach. These characteristics are associated with the constraints placed upon authors by publishing companies and departmental systems of textbook prescription. Publishing companies, to be competitive, produce cheap products which have to conform almost totally to the use of syllabus headings and structure if they wish to have their books prescribed (Earle, 1985). As a result, in the rush to get textbooks prescribed "few, if any, texts are tested in schools before being published" (Earle, 1985, p.8).

In general, textbooks in South Africa perpetuate the notion that geography education is concerned with the acquisition of factual information and in this regard encourage a second phase approach towards the subject. (Diepeveen's (1982) finding that 80% of geography teachers in the Cape Education Department use the textbook in the place of the syllabus, emphasises this fact.) In this way textbooks render a disservice to the subject by encouraging teachers to adopt teaching practice which emphasises content knowledge rather than that which develops concepts, skills, attitudes and values.

4.2.4 Finance.

Secondary school budgets for geography equipment, textbooks and other teaching aids are normally very limited (Ledger, 1980). This is particularly the case in 'Asian', 'Coloured' and 'Black' schools which receive far less money per pupil from government than 'White' schools (See the HSRC report (1981) for details of the financial inequalities between race groups).

A lack of money is often cited by teachers as influencing their teaching practice decision-making i.e., predisposing them to use teacher-centred methods such as talk and chalk. It has to be accepted that, particularly in 'Black' schools, a lack of teaching aids may predispose teachers to adopt the use of teacher-centred methods. It does not follow, however, that the acquisition of teaching aids will necessarily cause teachers to use third phase teaching practice. Teaching aids are in themselves neutral. The way in which they are utilised by teachers decides their value. Teaching practice, therefore, determines whether aids advance or retard the achievement of third phase syllabus objectives. Due to the influence of syllabus, examination and textbook upon the teaching style and methodology use of South African geography teachers, aids are not generally used to develop pupil concepts but rather to enhance the presentation of syllabus content information. For instance the overhead projector is frequently used, as it is a less messy and time-consuming means of conveying factual information than the chalkboard.

4.2.5 Pupils and colleagues.

Pupils and colleagues affect a teacher's choice of teaching style and use of methodologies through the psychological pressure they apply during the process of lesson preparation (reflective decision-making) and in the classroom situation (immediate decision-making). Since the advent of the merit promotion system for teachers in South Africa during the late 1970's, where teachers are assessed for promotion within their school by colleagues, headmasters and inspectorate, the strength of colleague and pupil pressures have increased. The system is fraught with problems and has greatly increased conformist pressures upon geography teachers, thereby encouraging the choice of conservative teaching practice (Stonier, 1985) and discouraging the use of a third phase approach.

Personal experience in 'White' South African secondary schools suggests that in many instances the need to be

perceived as 'in control' of a class supersedes the desire to attain the aims and objectives of the geography syllabus. One of the most serious allegations which can be made against South African geography teachers is that they have disciplinary problems. Noise is used as an indicator of class control. Many teachers are judged by the noise emanating from their classrooms by colleagues who happen to walk past in the corridor. Informal monitoring of this type, it is contended, is a potent factor affecting the general status of the teacher in the eyes of colleagues. Pupil-centred teaching, incorporating group work, role plays and discussion, generates more noise than the use of teacher-centred methods. Accordingly, the fear that other colleagues will interpret this noise as an indicator of class control deficiencies may cause geography teachers to refrain from their use.

Pupils, through their behaviour and feedback, influence geography teaching practice decision-making. It is common to find that if pupils are used to being passive recipients of knowledge they often object when required to participate actively in the learning situation. Pupil pressure for teacher-centred learning may be increased by an examination system in which pupils obtain high marks in geography by committing large amounts of factual information to memory. Geography teachers who are perceived as successful (as evidenced by their ability to produce pupils obtaining high grades) are those who provide digested facts in lessons and are able to persuade pupils to learn them.

4.3 CONCLUSION.

Broadly, the preceding description of the influence of training and organisational elements determining South African geography teacher choice of style and methodology use suggests that :-

(i) the impact of training elements would seem to be weak in terms of influencing geography teachers to adopt third phase practice. This

is particularily noticeable when considering the role of in-service training.

(ii) organisational elements combine to influence geography teachers to hold attitudes which encourage the use of conservative teaching practice. Practice thus continues to be largely directive and teacher-centred in approach with an emphasis on imparting factual information. Consequently, geography education remains second phase in its nature and there is little impetus encouraging the adoption of third phase practice.

No research has yet been undertaken to establish the exact nature of training and organisational elements upon a geographer's teaching practice. Planning strategies, however, need to be informed by what geography teachers think and do if they are to be successful in encouraging the adoption of third phase teaching practice. It is therefore essential that research is undertaken to establish the details of geography teacher socialization and the relative importance of elements determining classroom decision-making within the country.

CHAPTER FIVE

SOCIALIZATION AND DECISION-MAKING: RESEARCH PROCEDURE.

It has become clear that if the third phase aims of the geography syllabus are to be achieved, teachers need to adopt teaching practice which will develop pupil concepts, skills, attitudes, and values. In planning to effect such change, educationalists need to take cognisance of the important role played by teachers in the education system. Strategies will not be effective unless factors influencing geography teaching practice are investigated and their relative importance established. Accordingly, this study aims to

(i) establish teacher attitudes towards, and practice in, geography education.

(ii) investigate within-group differences between teacher attitudes towards, and practice in, geography education.

(iii) identify the process of teacher socialization as individuals progress from students to experienced teachers.

In order to achieve these aims the research procedure adopted involved the collection of data on the following :-

(i) geography student and teacher attitudes towards reasons for teaching, geography education and practice, pre-service teacher training, and what they felt influenced their teaching style.

(ii) the use and idealised use of teaching methodologies.

(iii) the identification of personal attributes of students and teachers.

5.1 DEFINING THE TERM 'ATTITUDE'.

Thus far the term 'attitude' has been used in its broadest sense, that is, "a way of thinking or behaving" (Oxford Universal Dictionary, 1981, p.49). It is necessary, however, to define the term more clearly. Unfortunately few researchers in the field of attitude study agree upon an explicit definition of the term (Oppenheim, 1966).

According to Thomas (1978, p.3), "most would ... probably agree that :-

(i) attitudes are learned.

(ii) they consist of predispositions to respond to a given object, or class of objects, rather than fixed responses.

(iii) they are either positively or negatively orientated towards the object.

(iv) they persist over time. This is not to say that they are immutable, although whilst an attitude might be amenable to change, the alteration of an attitude, particularly one that is strongly held, may require substantial pressure."

The above characteristics incorporate the major ideas contained in a tripartite view of attitudes which may be applied to an object such as a school (Fig. 5.1). This view conceptualises attitudes as consisting of three components, *viz.*, cognitive, affective and conative. The cognitive component is the knowledge which a person has about a school; the affective component reflects the positive or negative feelings which an individual has towards a school; the conative component is the behavioural tendency that a

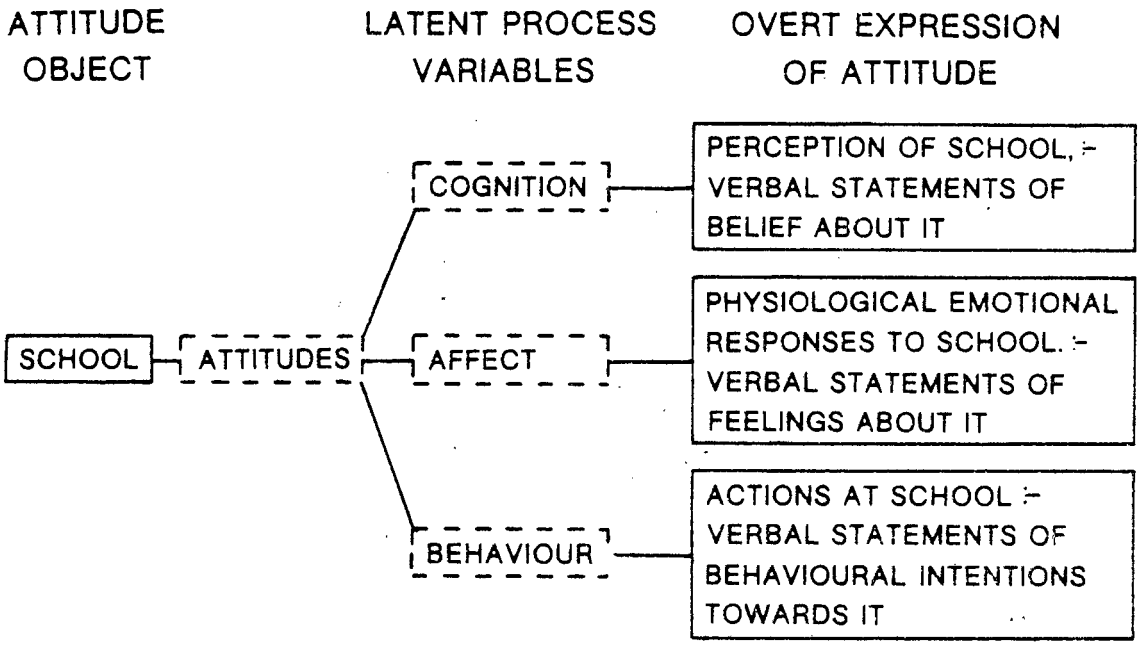


FIG. 5.1 RELATIONSHIPS BETWEEN ATTITUDE COMPONENTS
(SOURCE: THOMAS, 1978, p.4)

person has in relation to a school (Thomas, 1978). Each attitude component can be measured by an individual's statements regarding belief, feelings and behavioural intentions in relation to the object 'school'.

Although Fishbein and Ajzen (1975) argue that the term 'attitude' should be confined to only those responses related to the affective component (they regard responses related to the cognitive component as belief, and those relating to the conative as intention and behaviour), this approach severely complicates the measurement of the concept. To distinguish between affective and conceptual components by measurement is difficult, especially if verbal statements are used (Wicker, 1973). Furthermore, the exact relationship between attitude and overt behaviour is difficult to establish. Fishbein and Ajzen (1975) for example, try to overcome this problem by dividing the conative component of attitude into intention and observable behaviour. Intentions, as indicated by attitudes, can thus be separated from observable behaviour which is an individual's response to an object. Intentions, therefore, do not always relate exactly to observable behaviour. Furthermore, attitude components towards an object need not be consistent within an individual. Often knowledge, feeling and behavioural intent can be at variance. For example, a geography teacher may use teacher-centred methodologies as they are the most suitable for examination requirements, knowing that this is not in the long-term interest of the pupils, subject or society . Wicker (1973) explains that attitude-behaviour inconsistencies result when a person holds competing attitudes which, in certain situations, are stronger than the one under consideration. He suggests that ideas regarding attitude-behaviour inconsistencies often fail to take into account the unstable nature of the process of attitude formation.

From the above perspective it is clear that no simple relationship between attitude and behaviour exists. To differentiate between, and measure exact differences in an individual's belief, attitude, intention and behaviour

towards an object may be important in certain psychological or sociological research, e.g., where attitude scaling is undertaken. However, as this study is concerned with ascertaining teacher attitudes towards geography education and not with constructing psychological attitude scales, a more general definition of the term is appropriate. For this purpose therefore, the term attitude is defined as "certain regularities of an individual's feelings, thoughts and predispositions to act towards some aspect of his environment" (Secord and Backman, 1970, p.41). This definition includes the commonly accepted tripartite view of attitude but is not so limiting as to confine the measurement of attitudes to the use of bipolar evaluative techniques such as those used in attitude scales.

5.2 RESEARCH LOCATION.

Ideally research into geography teacher attitudes and practice should cover all eighteen departments of education in South Africa. Practically, however, such a study is fraught with difficulties both in the administration of the research and the interpretation of results. According to Hartshorne (1986, p.64), "education is taking place within an untidy maze of interactions that are themselves volatile and unpredictable and which differ radically from place to place, from situation to situation, often at the whim of State officials". Difficulties with the administration of nationally-based research include :-

(i) the bewildering array of departmental procedures which have to be followed before permission is granted to allow school-based research to proceed.

(ii) the suspicion and reluctance to allow research to take place in many departments due to the political sensitivity of educational matters within the country.

(iii) the disruptions occurring due to staff and pupil boycotts and the resultant closure of many schools for differing time periods.

Problems involved with the interpretation of results from a country-wide educational research programme are difficult to overcome. Thus Hartshorne (1986, p.64) remarks, "assesssing education in South Africa today is a risky endeavour because of the extreme complexity of the social, economic and political context, and the rapidity with which situations change". Although the basic elements affecting geography teacher socialization and classroom decision- making within the country are similar, the interaction of elements and their relative importance in determining attitudes and practice varies between departments. It follows that appropriate intervention strategies in one department may differ from those employed in another.

Due to the apartheid system, departments face differing problems which would be highlighted in a broadly-based study. Although identification of these differences in the process of geography teacher socialization and classroom decision-making would be interesting, the interpretation of results would require extensive knowledge of, and experience in, the workings of individual departments. Given the researcher's 'White' background and experience, it would be difficult, if not inappropriate, to attempt to explain teacher attitudes in 'Asian', 'Coloured' or 'Black' education. Not only would the analysis of results be difficult to achieve without a 'White' bias, but due to the present distrust and suspicion existing between the races with regard to educational matters, the co-operation of teachers and the objectivity of country-wide responses to a 'White-based' investigation, would be open to question. Any inter-departmental research should, in terms of the difficulties of administration and expertise required in the analysis of data, be undertaken as a collaborative exercise along the lines of those funded by the HSRC.

This study, therefore, confines itself to research in one Department of Education *viz*,. the Cape Education Department. This Department is the second largest of the four which cater for 'White' pupils in South Africa. Factors favouring the choice of the Cape Education Department were:-

(i) the availability of a Departmental Research Bureau facilitating the administration of research in the schools.

(ii) the educational environment as well as the qualifications and background of teachers, is representative of 'White' education generally (HSRC, 1981). As such it is reasonable to expect that research findings would reflect the situation existing in the other three 'White' departments of education.

(iii) the presence of four universities offering pre-service geography education courses which feed teachers into the secondary school system, *viz*., the universities of Cape Town, Port Elizabeth, Rhodes and Stellenbosch.

(iv) the experience and involvement of the researcher in geography education in the Cape Province which could help in the choice of research design and interpretation of data.

5.3 RESEARCH DESIGN AND METHODOLOGY.

In order to inform the research design literature concerning the use of survey, questionnaire and case study techniques were consulted (Babbie, 1973; Dixon and Leach, 197(8); Oppenheim, 1966; Sonquist and Dunkelberg, 1977). Other surveys, such as those conducted by the Association of American Geographers investigation into geography courses (Hastings et al, 1970) were also consulted and proved to be useful in suggesting ways of presenting research findings. Surveys allow widespread opinion to be ascertained and are

a common and scientifically acceptable means of studying individuals under natural conditions (Babbie, 1973; Smith, 1983). Case studies, unlike surveys, initially seek to understand a single, idiosyncratic case, thereby maximising the number of variables considered (Babbie, 1973).

Basic research designs suitable for use in the measurement of geography teacher attitudes and practice are cross-sectional surveys, longitudinal surveys (trend, cohort and panel studies), parallel samples, contextual and sociometric studies. Considering the positive and negative features of these designs, it was decided to use a cross-sectional survey which allowed the approximation of longitudinal data (Babbie, 1973; Nachmais and Nachmais, 1976). An advantage of using this design lies in the fact that although data are collected once, they may be used for the purpose of describing and determining relationships between variables through time (Babbie, 1973). As the process of teacher socialization occurs over a long time period, inferences can be made from cross-sectional data regarding the process of individual change (Babbie, 1973). Cross-sectional data, together with the judicious use of statistical techniques, enables the process of geography teacher socialization to be analysed without undertaking years of longitudinal research.

Choice of a cross-sectional survey design and the broadly-based nature of the study led to the selection of a questionnaire technique in preference to unstructured interviews or interview schedules (Dixon and Leach, 197(8)). A postal rather than a delivery and collection questionnaire was decided upon because of the size and widespread location of the target population as well as the resources available.

Before the attitudes of geography teachers could be surveyed permission had to be obtained from the Cape Education Department. This involved sending a sample questionnaire together with a covering letter setting out the research aims, to the Cape Departmental Education Bureau. The questionnaire was scrutinised and permission granted to send

it into the schools. The Department instructed that the letter granting permission and setting out the conditions of the research must accompany the questionnaire into the schools (Appendix C). Condition 2.2 relating to the confidentiality and anonymous nature of the research was of particular importance and affected the administration of the survey making it impossible to identify and investigate non-respondents.

A letter of introduction to the survey was constructed, setting out the purpose of the questionnaire and attempting to encourage and obtain teacher support (Appendix D). The letter, together with the introduction to the questionnaire, assured individuals of the anonymous nature of their responses and requested them to reflect their personal feelings. It was hoped that the letter would elicit teacher support and interest, thereby overcoming the potential problem of a poor response which would harm the validity of the research.

In order to achieve a high response rate from students, it was decided that questionnaires would be administered by geography methodology lecturers. Letters were written to the four lecturers at the Universities of Cape Town, Port Elizabeth, Rhodes and Stellenbosch, informing them of the purpose of the research and asking for their co-operation. A positive response was obtained and these individuals administered the questionnaires at the times requested.

5.3.1 Questionnaire construction.

Content used in the teacher questionnaire was arranged under headings reflecting the major research areas *viz.*, personal data, attitudes towards teaching, geography education, teacher training, teaching style, use of and attitudes relating to methodology. Some areas of concern were not included in the student surveys because they were irrelevant at the time of questionnaire administration, e.g., sections relating to methodology use. Questions concerning personal data also varied between teacher and student questionnaires.

All the items used in the survey were devised by the researcher except those used to establish teachers' 'reasons for teaching', which were taken from Lacey's (1977) research into the process of teacher socialization. The use of his questionnaire items allows perceptions towards the subject, change, job, child-self, creativity and achievement to be measured and enables comparisons to be made with teachers outside the context of the study area.

The questionnaire included both response statements and closed-ended questions. This format was chosen as sample size is large and closed-ended questions allow a uniformity of response; responses are easily coded and data analysis is simplified; and respondent replies in general would refer to the areas of concern identified by the researcher. An attempt was made to provide exhaustive response categories in each content section (Babbie, 1973). However, in order to overcome the problem of a respondent wishing to deal with an issue not mentioned in the questionnaire, space was provided for the inclusion of open-ended responses.

Having identified content areas and question format, response statements and question items were constructed. In this process care was taken to ensure that statement and question wording was as clear and unambiguous as possible. Negative items were avoided in order to minimise misunderstanding and error (Babbie, 1973). In the few cases where the word 'and' is used in a statement, care was taken to ensure that the meaning conveyed to the respondent was not double-barrelled (Babbie, 1973). Take, for example, the statement 'geography should develop a love for one's country and culture'. 'Country and culture' is generally perceived by teachers as relating directly to aims of Christian National Education. By means of this phraseology, attitudes towards Christian National Education could be inferred without infringing upon the sensitivity of officials in the Cape Education Department.

The initial bank of questions and statements was refined and then handed to geography teachers, educationalists and

academic geographers for comments regarding their suitability. Their responses were used to rephrase certain statements and questions and in some instances to reject them. Thereafter, the questionnaire was given to a psychologist skilled in survey techniques, and acting on his advice minor adjustments were made to statement wording and survey format. The questionnaire was then tested on a small group of pre-service geography education students and teachers.

During the pilot study it was noted that the time taken to complete the survey ranged from 20 to 25 minutes. This is an acceptable time for a self-administered survey (Dixon and Leach, 197(8); Smith, 1983). Note was also taken of any problems encounted by respondents in the understanding of questions. As a result of the pilot study, minor alterations were made to the questionnaire before it was translated into Afrikaans and finally printed in both official languages. Student and teacher questionnaires are presented in Appendix E.

5.3.2 Case Study Design.

Teacher socialization research has identified the first year of teaching as a period of extensive attitude change. As a result, probationary teachers were chosen as subjects in the case study with the aim of monitoring changes in their attitudes and practice during their first year in the schools. The case study involved a longitudinal assessment of variables affecting the day-to-day decision-making of probationers in the classroom. The investigation was designed to complement the interpretation of statistical data gained from student and teacher surveys relating to elements affecting classroom decision-making .

Several probationary teachers were asked to record their feelings, experiences and behaviour concerning elements affecting their classroom decision-making, in a personal diary. Entries were to be made once a week for the duration of 1985. The use of diaries allowed participants to report

events perceived as important to them at the time they occurred. In this way the subjective observations of probationers had an immediacy which would not have been possible if an interview method had been used. The use of case study diaries, therefore, allows changes resulting in teacher attitude and practice to be investigated and provides as true a perspective as possible on probationer experience.

5.4 ADMINISTRATION OF RESEARCH.

5.4.1 Teacher Survey.

An attempt was made to survey all geography teachers working for the Cape Education Department. Surprisingly, the Department has no record of the number of secondary schools offering geography as a subject or the number of geography teachers they employ. It was established, however, that 159 schools enter candidates in the geography matriculation examination. Discussions with departmental officials and geography teachers suggests that the average number of full-time geography teachers in each secondary school in the Province is two, with one or maybe two other teachers taking a few classes in the lower standards. The largest metropolitan schools were found to have a maximum of six geography teachers. Working on an average of 2,5 to 3,5 teachers per school entering candidates for the matriculation examination, the number of geographers in the Cape Education Department could be assumed to fall between 397 and 556.

Questionnaires were posted to the principals of the 159 schools with geography matriculation pupils, during April 1984. In order that all geography teachers in a school would be approached, six questionnaires were sent for the principal to circulate among the geography staff. Each batch of questionnaires contained a self-addressed, postage-paid envelope in which to return the survey. The first responses arrived within 10 days of posting and within a seven week period 313 were returned. This suggests that a response of between 56% and 79% was obtained, even the lower

percentage being acceptable for the analysis of survey results (Babbie, 1973).

Students taking geography methodology as a course during their post-graduate pre-service higher diploma in education were surveyed at the beginning, and again at the end of their course, i.e. February and October, 1984. Although 91 students completed and returned the first questionnaire, only 87% of them completed the second (79 in total). The fall-off in numbers was due to the administration procedure followed in one university where students were given the responsibility for returning the questionnaires themselves. Consequently, a number did not send them back and as they had finished their course, no follow-up was possible.

5.4.2 Case Studies.

The need to have close personal contact with individuals, in order to motivate the continued and regular writing of diary entries, meant that case study participants were selected from students graduating from the University of Cape Town. In this way the problems of language, interpretation and contact were overcome.

Initially ten students of the University of Cape Town who were members of the 1984 pre-service geography methodology course, agreed to participate as case study subjects . This number dropped to seven at the beginning of 1985 with withdrawals due to lack of geography teaching posts (2 students) and the arrival of military call-up papers (1 student). In January 1985 each probationary teacher was sent a letter setting out in detail the areas of interest to the researcher (Appendix F). The use of a weekly diary was proposed as the method of reporting. Contact was kept with the participants throughout the year and the diaries were collected at the beginning of November 1985.

5.5 DATA ANALYSIS TECHNIQUES.

The questionnaire pilot study made it possible to undertake a dummy run of question coding and computer analysis. This

was done in order to ensure that suitable statistical analysis could be undertaken on the data. Although time-consuming, the pilot study was a valuable exercise which enabled appropriate statistical techniques to be determined, computer runstreams to be debugged, ensured that response coding was suitable for the purposes of analysis, and streamlined the data processing procedure in preparation for the analysis of student and teacher responses.

The research outlined above is, of necessity, a compromise between the desire to obtain general answers to questions pertaining to a diverse education system, and the practical constraints involved with time, financial resources, expertise, manpower and measurement. Notwithstanding this, the work clearly contributes to knowledge concerning geography teacher attitudes and practice in 'White' education departments in South Africa.

CHAPTER SIX

ESTABLISHING GEOGRAPHY TEACHER ATTITUDES AND PRACTICE: RESEARCH RESULTS.

One of the results of investigating geography teacher attitudes and practice in the Cape Education Department is that the personal characteristics of the population have been established. As this type of information is not available from the department of education it forms a useful guide to the characteristics of geography teachers in 'White' departments in the country. Unfortunately, due to the lack of information regarding the total number of geography teachers in the Cape Education Department and therefore the impossibility of establishing the number and characterisitics of non-respondents, it is impossible to estimate the population precisely in statistical terms. Nevertheless, the information provides a useful descriptive tool with regard to both the characteristics and the attitudes of geography teachers working for the Cape Education Department.

On the basis of the 313 returns the following generalisations can be made. The typical geography teacher is predominantly male, has three to four years training (presumably a three year degree with geography as a major and a one year post-graduate higher diploma in education), and teaches either in a small town or in a metropolitan school (Table 6.1).

Although teaching in secondary schools, as many as 26% of the population have trained for two or less years, while only 14% have five or more years of training. There are large numbers of teachers who trained before the major changes in the nature of geography education in the 1970's, but an equal number (including some who would have been pupils at secondary school) trained after the implementation of the 1973 geography syllabuses. Accordingly, Cape Education Department teachers have experienced all degrees

PERSONAL ITEM	% RESPONDENTS ACCORDING TO CATEGORY (N = 313)		
SEX	Male 72	Female 28	
GEOGRAPHY TRAINING	2 years or less 26	3-4 years 60	5 years and above 14
INSTITUTION ATTENDED	College of Education 9	University 91	
TRAINING PERIOD	Pre-1970 41	Post-1970 59	
SCHOOL POST	1st year Teacher 9	Teacher 55	Senior Teacher 23
	Head of Dept. 11	Deputy Principal 1	Principal 1
HIGHEST GEOGRAPHY STANDARD TAUGHT	Std. 6-8 49	Std. 9-10 51	
MEDIUM OF INSTRUCTION	English 42	Afrikaans 58	
SCHOOL SITUATION	Small Town (<20 000) 40	Large Town(20,000-100,000) 23	
	Metropolitan Region (>100,000) 37		

TABLE 6.1. GEOGRAPHY TEACHER PERSONAL DATA SUMMARY (EXPRESSED AS PERCENTAGES).

of socialization and it is therefore possible to establish the general impact of syllabus change upon teachers by comparing population responses.

The sample reflects not only teachers with different lengths of service, but also those from different promotion levels within the school system ranging from first year teachers to school principals. Numerically there is an even spread between those who teach geography up to the standard 8 level (presumably those with two or less years training) and those who teach from standards 6 to 10. The range of school experience is thus wide and responses can be expected to represent varied conditions existing in the classroom environment.

From the characteristics above it is clear that the sample is not biased towards any particular subset and represents as wide a range and experience of secondary school geography conditions as could be expected. The data is therefore ideally suited to the purpose of this study, *viz.*, establishing the attitudes of geographers towards teaching and their perception of how their teaching practice operates.

As the survey covers a wide spectrum of teachers it is possible to analyse their attitudes towards reasons for teaching, geography education and practice, pre-service teacher training, influences upon teaching style, and the use and idealised use of teaching methodologies. Firstly, analysis involved the investigation of those factors predicating their teaching, *viz.*, perceptions on education which would affect why they became teachers (and in particular geography teachers), as well as their attitudes regarding the aims of geography education. Secondly, the analysis could establish the impact of socialization forces upon teachers, *viz.*, their attitudes towards pre-service training and what they perceive as influential in determining their choice of teaching style. Thirdly, the analysis could focus on the classroom situation to establish

the use of teaching methodologies as well as the extent to which actual and ideal methodology use correspond.

Responses to each question were processed by computer using the P2D package of the Biomedical Programs Statistical Software (Dixon, 1983) and the mean, median and modal values were calculated for each item. These three measures of central tendency allow generalizations to be made regarding teacher attitudes and practice. However, in order not to lose information, frequency histograms produced by the P2D program were also used to identify the spread of responses for each item and thus aid in the interpretation of results. An example of the computer printout is found in Appendix G.

6.1 ATTITUDES TOWARDS GEOGRAPHY EDUCATION (Qs.9 - 50).

A total number of 42 items were used to evaluate geography teacher perceptions of job satisfaction, why they chose teaching as a career and, in particular, their attitudes towards geography education.

Items 24 and 25 evaluated teacher perceptions of job satisfaction. Item 24 concerns general perceptions of satisfaction with teaching as a career, while item 25 concerns satisfaction with geography teaching in particular. Mean and modal responses are presented in Figure 6.1 below.

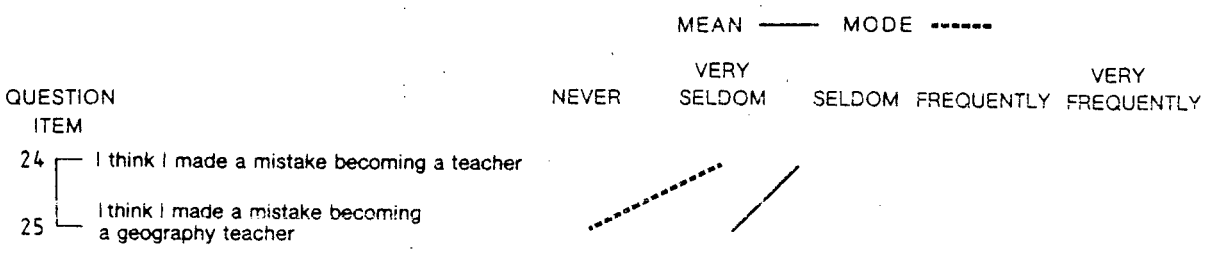


FIG. 6.1 PERCEPTION OF JOB SATISFACTION

Generally, geography teachers don't feel that they chose the wrong career. Modal values indicate that almost half the respondents 'never' or 'very seldom' question their career choice (Q. 24) while as many as 40% 'never' question the choice of geography as their teaching subject (Q. 25). Similarly, although 23% do in fact frequently wonder why they became teachers, only 12% question their choice of geography as a teaching subject (Fig. 6.2). Overall, respondents are happy to be teachers, and in particular, geography teachers.

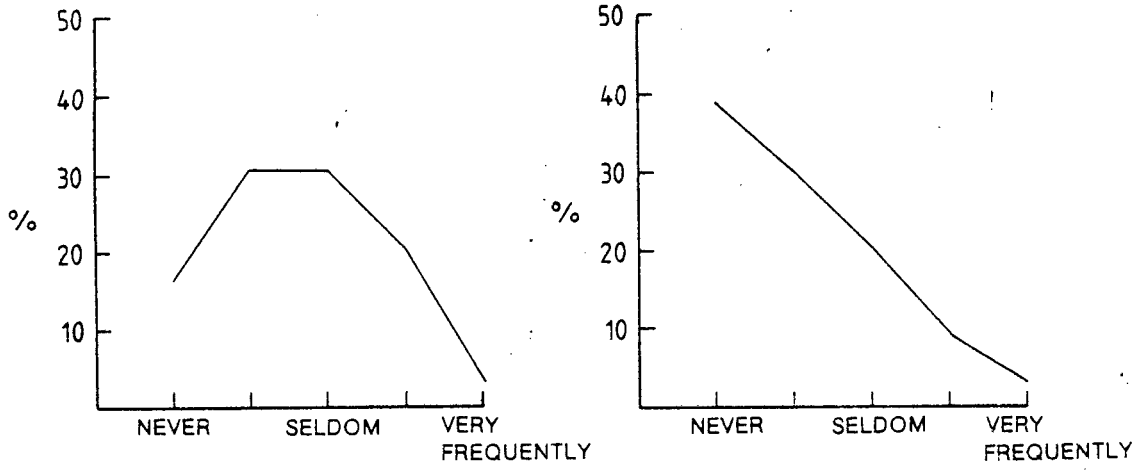
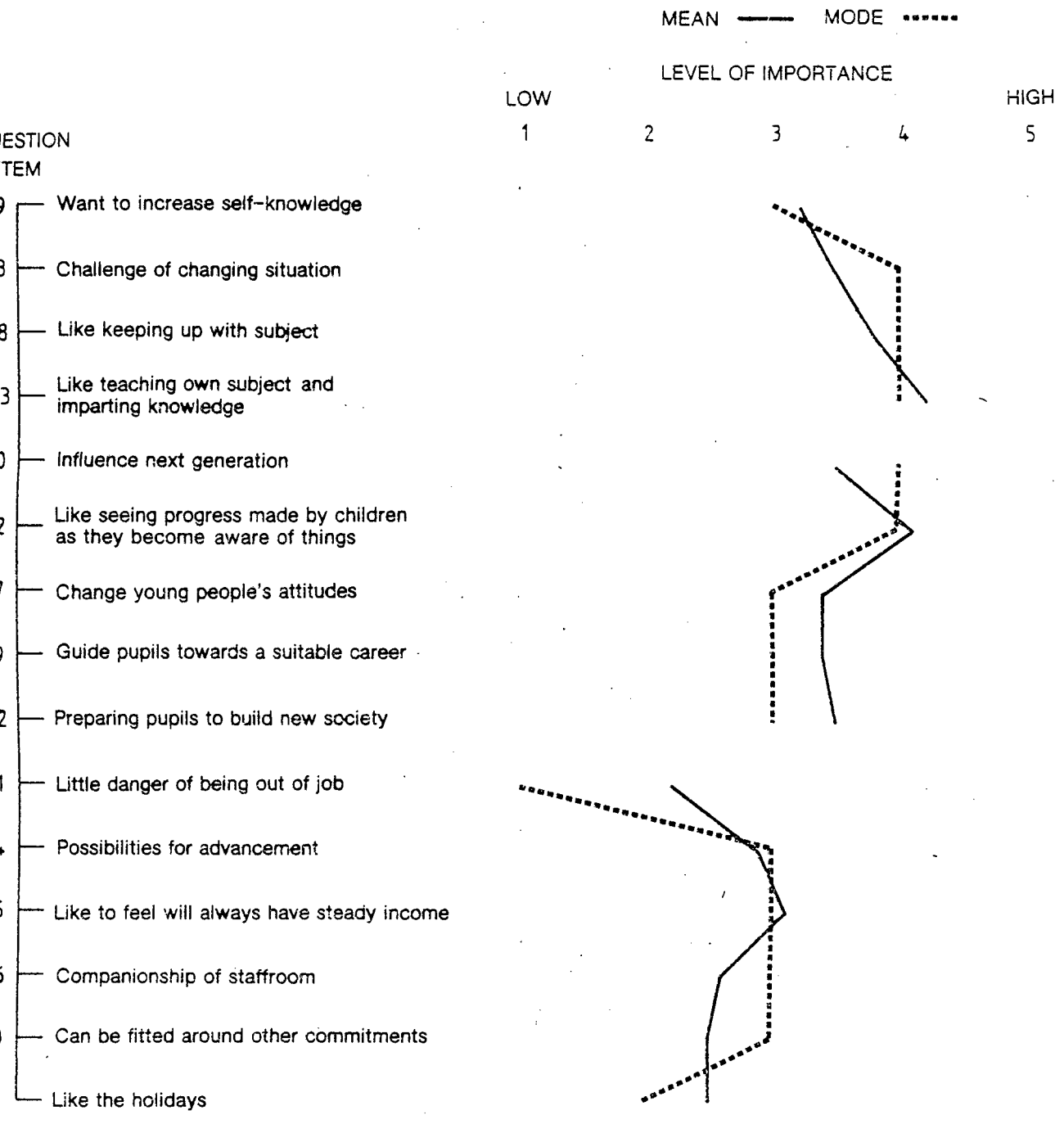


FIG. 6.2 RESPONSE DISTRIBUTION: Q. 24 and 25

As the respondents show interest in and concern about geography education, their responses to the questionnaire are expected to be thoughtful. Concern for, and satisfaction with geography education could have one of two results, i.e. teachers hoping to keep geography education as it is and therefore resisting change, or teachers wishing to bring about change in order to improve the quality of geography education experienced in the schools. In order to establish which of the two alternatives is more likely, and where the differences are most marked, the information was grouped according to why the respondents became teachers and how they view particular aspects of teaching.



G. 6.3 REASONS FOR TEACHING

6.1.1 Reasons for teaching.

The 15 items included in this section of the questionnaire were not arranged in any particular order because the intention was to establish whether a pattern could be discerned in the responses.

Mean and modal scores of geography teacher responses to statements regarding their reasons for teaching are represented in Figure 6.3. A score of 1 indicates that the item was rated as having a low level, and 5 a high level of importance. Mean and modal scores for items are, in most instances, located close together, reflecting a narrow response spread.

When the fifteen items relating to reasons for teaching are ranked according to mean scores, a trend is clear (Table 6.2). The ranking reflects the relative importance of subject (Qs. 23 and 18), observing pupils develop (Q. 12) and the desire for a job which varies in its activities (Q. 13), as reasons for teaching. Of considerable interest are the positions of job-related items in the rankings. These occupy the last six positions. Of these six items, financial security (Q. 15) is perceived as being of greatest importance and job security (Q. 11) of least importance.

Surprisingly, the grouping of items according to Lacey's (1977) seven category descriptions showed no obvious pattern of related answers. However, if those items with similar ratings are grouped, a clear pattern emerges in which subject/personal issues, pupil development and job related factors tend to cluster together. The association of answers to related questions is highlighted by using lines to join the mean and modal values for items (Fig. 6.3). It becomes clear that the most important influence upon teachers' career choice concerns subject/personal issues *viz.*, attachment to geography as a subject (Qs. 18 and 23) and a desire for a career which is both challenging and varied in its nature (Q. 13). Subject considerations in particular, are generally perceived as being the most

RANK	MEAN	ITEM	REASONS FOR TEACHING
1	4.22	23	*Like teaching own subject and imparting knowledge*
2	4.08	12	*Like seeing progress made by children*
3	3.76	18	*Like keeping up with subject*
4	3.53	13	*Challenge of changing situation*
5	3.51	10	*Influence next generation*
6	3.50	22	*Preparing pupils to build new society*
7	3.41	19	*Guide pupils towards a suitable career*
8	3.36	17	*Change young peoples' attitudes*
9	3.15	9	*Want to increase self-knowledge*
10	3.06	15	*Like to feel will always have a steady income*
11	2.89	14	*Possibilities for advancement*
12	2.57	16	*Companionship of staffroom*
13	2.49	21	*Like the holidays*
14	2.48	20	*Can be fitted around other commitments*
15	2.18	11	*Little danger of being out of job*

TABLE 6.2. RANKING OF REASONS FOR TEACHING.

important factors in terms of reasons for teaching and are rated above those concerning pupil development and job consideration.

Although pupil-centred issues do not reflect as great an influence upon career choice as subject considerations, respondents do indicate that working with young people and helping them to progress is an important factor influencing their choice of teaching as a career (Q.12). Relatively speaking, items indicating job-related issues are not perceived as influential in career choice. Of note, however, is item 11 which concerns teacher perception of the importance of job security in career choice. Teacher responses to this item vary widely. While the modal score suggests that job security is unimportant, 35% of teachers rate it as moderate to high in importance (Fig. 6.4). Interestingly, teachers who have five or more years of training and those who trained before 1970, rate job security of higher importance than other teachers. This would suggest that qualifications and age, reflecting levels of commitment and job dependence, are variables influencing teacher perception of the importance of job security.

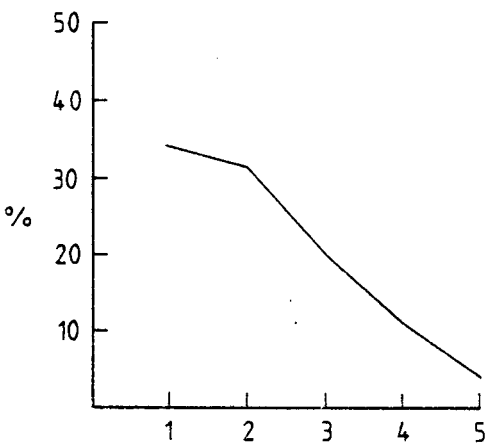


FIG. 6.4 RESPONSE DISTRIBUTION: Q. 11

As a whole the results above confirm the contention that Cape Education Department geography teachers fit most comfortably into the second phase of the Graves typology

(1981). Responses reflect the overriding importance of subject issues when compared with pupil-centred and job concerns.

6.1.2 Attitudes regarding geography education and practice.

In the questionnaire teachers were asked to respond to bi-polar statements concerning the aims and practice of secondary school geography education. Responses were coded from 1 to 5. (1 = agree strongly; 3 = undecided; 5 = disagree strongly). For discussion purposes the wide ranging statements are grouped into five sections focusing on knowledge and concepts, skills, attitude development, subject and practice. The mean and modal values for related questions are linked and presented in Figure 6.5. Teacher responses indicate an overall agreement with item statements and in only two cases do the largest set of respondents disagree (Qs.43 and 48). The level of consensus in responses is reflected in the high correspondence between mean and modal scores for items.

6.1.2.1 Knowledge and concepts.

Geography teachers' responses to items 26, 33, 34, 35 and 37 reflect their perceptions relating to geographical content and concepts in secondary school education. The very strong positive response to Q.33, when compared with those to other items in this section is interesting. All the teachers replied to this item and on average 68% agreed strongly and 30% agreed that geography should supply pupils with facts about the world. From this it is seen that teachers rate the imparting of geographical facts as the most important aim of geographical education. However, although they agree strongly with the notion that geography should supply pupils with facts about the world in which they live, the largest group of teachers (40%) disagree with the statement that pupils should be presented with more regional geography at school level (Q.35). This apparent contradiction may be explained in one of two ways. Either teachers feel that the present syllabus already supplies pupils with enough facts

STRONGLY AGREE UNDECIDED DISAGREE STRONGLY

UESTION
ITEM

6 Geographical education is concerned with the development of young minds

3 Geography should supply pupils with facts about the world they live in

4 The geography school syllabuses should contain more spatial theory

5 Pupils should be presented with more regional geography at the school level

7 Geography lessons should teach generalities common to many regions rather than the particularities of any one region

6 Geography at school level should aim to develop problem-solving skills

9 Geography should develop pupils' critical appreciation of their environment

1 The learning of graphic skills such as map-work should comprise a larger segment of geography syllabuses than at present

7 Geography should develop a love for one's country and culture

8 Geography should encourage a wonder of creation

0 Geography lessons should instil respect for moral values and tolerance of other races, religions and ways of life

1 Geography should deal critically with political ideals as they pertain to spatial patterns and organisation

2 Geography should develop an awareness of social justice in pupils

8 Geography syllabuses should be designed to facilitate social awareness on the part of pupils

0 Geography should encourage environmental awareness and conservation ethics in pupils

9 Geographical education is concerned with teaching concepts and skills useful to society

2 Syllabus changes in school geography are desirable as they enable the subject to remain relevant to the needs of pupils and society

3 School geography content should be separate and different from that taught at university

4 School geography is a highly relevant subject in relation to the needs of pupils

5 Geography is the most exciting subject to teach in the school curriculum

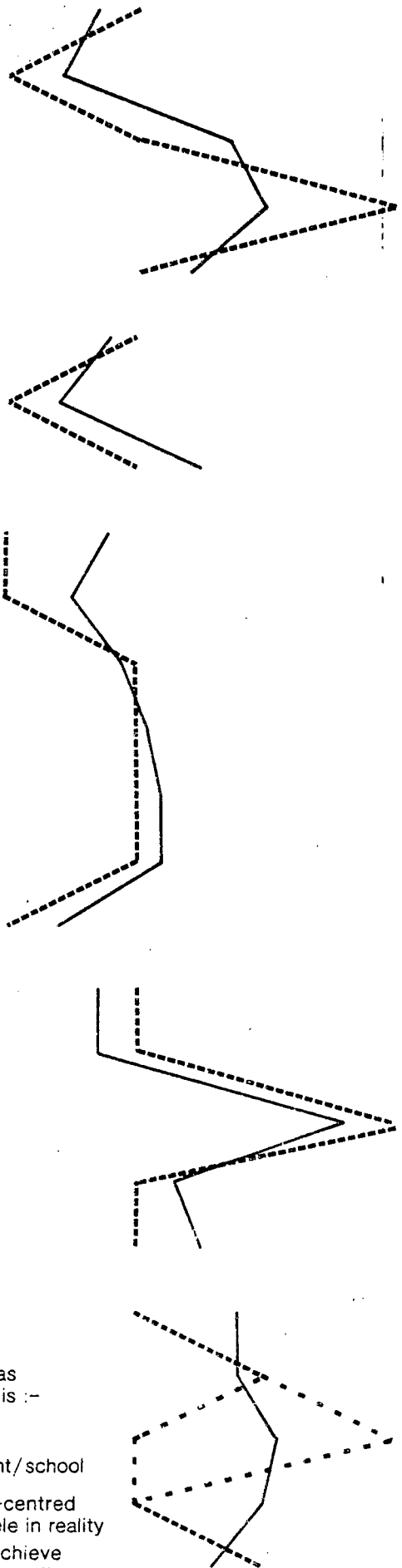
6 It is idealistic to assume that teaching methods such as fieldwork, geographical games and role plays should constitute a significant part of school geography teaching strategies

7 Normally the ideal time ratio for "teacher talking" as opposed to "pupil working" in a 40 minute period is :- 30:10 25:15 20:20 15:25 10:30

8 As a geography teacher I largely conform to the teaching methods used by others in the department/school

9 Discovery methods of teaching which utilise pupil-centred approaches are fine in theory but are not practicable in reality

0 New pupil-centred geography teaching methods achieve greater learning in pupils when compared with the results obtained by more traditional methods



about the world they live in, or the facts which pupils need to be taught relate to geographical theories and concepts rather than details about regions. That the latter contention is the correct one is supported by the modal values for Qs.34 and 37 (Fig.6.5).

Although some are undecided about the importance of theory, the majority of teacher responses to statements regarding the importance of concepts in geography education (Qs.26, 34 and 37) indicate that they would agree that geography education should be concerned with the teaching of concepts relating to spatial theories and regions. In fact 95% of respondents agree or strongly agree that geography education is concerned with the development of young minds (Q.26). Teachers rate this item as the second most important aim of geography education.

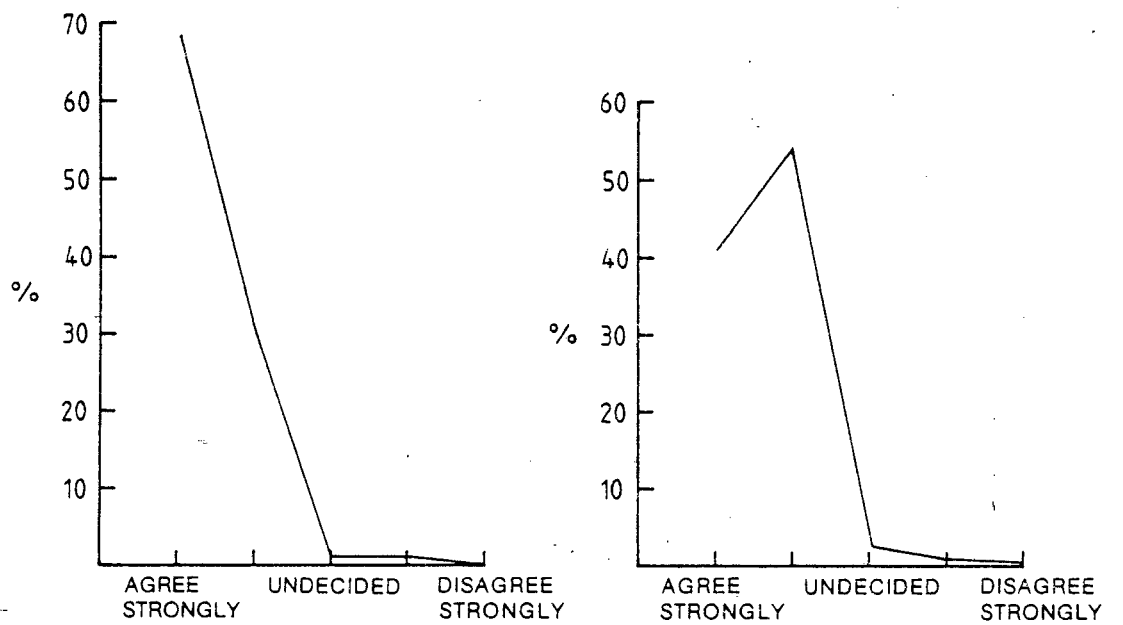


FIG. 6.6 RESPONSE DISTRIBUTION: Q. 33 and 26

Further analysis of the frequency polygons for Q.33 and Q.26 (Fig. 6.6) shows that a higher percentage of teachers agree strongly with the need to supply pupils with facts about the world in which they live (68%) rather than the development of young minds (42%). The comparative response

distributions indicate that teachers, as a group, feel more strongly about the importance of teaching facts than developing pupil concepts. This suggests that geography teachers in the Cape Education Department perceive geography education from a content, rather than pupil-centred, viewpoint. This supports the interpretation of teacher responses regarding their reasons for teaching (section 6.1.1) and indicates that teacher viewpoints regarding the nature of geography education are second phase in nature.

6.1.2.2 Skills.

Contrary to the above, teacher responses indicate a general third phase view of the place of skill development in geography education (Qs.36, 39 and 41). In particular, mean and modal values for Q.39 show that teachers agree strongly with the idea that pupils should be taught skills which will enable them to develop an appreciation of the environment. Teachers also favour the development of problem-solving skills (Q.36) and support an increase in the amount of graphicacy taught in the schools (Q.41). However, teachers are relatively more positive towards the development of problem-solving and environmental skills than in increasing the role played by geography in the development of graphicacy. Although not explicitly stated, experience would also suggest that teachers' conception of skills relate to those traditionally developed in geography, rather than those concerned with developing social or political skills e.g. values clarification.

6.1.2.3 Attitude development.

The above contention i.e., that teachers regard skills as important only insofar as they fall within a traditional subject framework, is supported by responses to items in this section. Overall, teachers agree that geography education should include the teaching of attitudes (Qs.27, 28, 30, 31, 32, 38, 40) although they feel that the development of certain attitudes are more important than others. In particular, teachers feel strongly that

geography education should develop Christian National attitudes (Qs.27 and 28). In fact 84% of teachers would aim to urge pupils to feel proud of their country and culture (Q.27) and 95% to encourage a wonder of Creation (Q.28). From these responses it may be assumed that the physical geography sections of the syllabus are likely to be interpreted within a religious framework where nature is perceived as revealing the existence and greatness of the Creator.

It is not surprising, therefore, that the teaching of environmental attitudes and ethics is rated highly by the majority of teachers (Q.40). In fact 99% of teachers agreed or agreed strongly that geography should encourage environmental awareness and conservation ethics in pupils. Environmental concerns have, in recent years, become increasingly popular in geography education in the Cape Education Department. Unlike socio-political concerns, they are perceived to be politically neutral and the department therefore encourages the development of environmental attitudes and ethics during school lessons. The inclusion of an ecology section in the recent JMB geography syllabus (1983) will help in the development of environmental attitudes during geography lessons and, on the basis of questionnaire response, should be welcomed by Cape Education Department geography teachers.

Generally teachers feel that geography should develop pupil attitudes relating to moral values, other race groups and social justice (Qs.30, 32 and 38). Although geography teachers might in certain instances adopt an essentially fundamentalist Christian emphasis, they nevertheless perceive that it is important to instil tolerance of other religions and ways of life (Q.30). In the South African context attitudes regarding moral values, racial issues and social justice could most easily be developed by the critical assessment of political ideology as it pertains to spatial patterns existing within the country. Although the majority of teachers agree with this notion (Q.31), experience of teaching in the South African situation

indicates that many 'Whites' are unwilling to take up positions opposed to the political ideology of apartheid in the classroom, or to encourage questions relating to social problems and injustice. By ignoring issues which have socio-political connotations, teachers presumably imagine that they remain neutral in relation to value-laden content. The lack of debate or questioning of the consequences of government policy regarding the spatial layout of the South African city, migrant labour, influx control and the creation of 'Homelands' is mirrored in geography textbooks and matriculation examination questions.

Responses to items in this sub-section indicate that although teachers agree that geography education should develop attitudes in pupils, they prefer to develop those encouraging pride in country, culture and environment, rather than those relating to socio-political issues.

6.1.2.4 Subject.

Items 29, 42, 43, 44 and 45 relate to teacher attitudes regarding the general nature of geography education in secondary schools. Figure 6.5 showing mean and modal response values indicates that there is general agreement that geography is a relevant subject (Q.44) teaching concepts and skills (Q.29), thereby meeting the changing needs of pupils and society (Q.42). Notwithstanding this view, teachers on average are undecided whether or not geography is the most exciting subject to teach in the school curriculum (Q.45).

On the question of whether subject content at secondary school should be separate and different from that taught in the universities (Fig. 6.7), only 17% of teachers indicated that they felt there should be a difference. The apparent uncertainty about the relationship between school and university geography appears to reflect the problematic issue of content mentioned previously (section 2.2). Responses to Q.43 reflect predominantly second phase views of geography education as content in schools should,

according to a third phase perspective, be chosen for its suitability in developing the whole pupil. This is not the case in university geography.

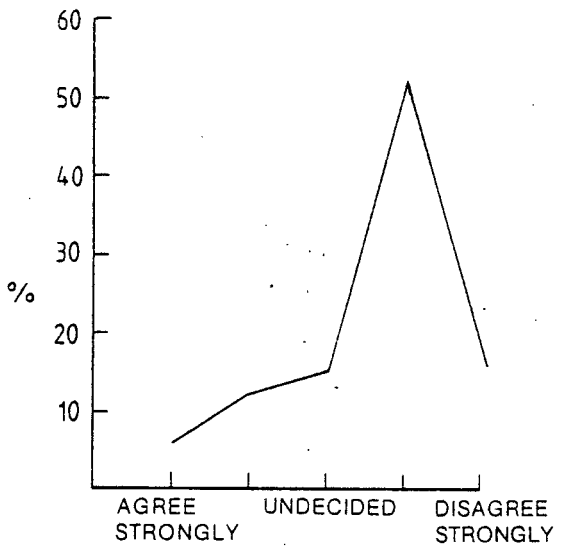


FIG. 6.7 RESPONSE DISTRIBUTION: Q.43

6.1.2.5 Practice.

Items 46, 47, 48, 49 and 50 were specifically designed to establish geography teacher attitudes towards the use of non-directive, pupil-centred teaching practice. The overall, mean and modal values which imply that geography teachers are generally undecided in their attitudes regarding classroom practice (Fig. 6.5) are, in fact, somewhat misleading.

In the first place responses to item 48, designed to measure the influence of colleagues upon respondents' use of teaching methodologies, are equally divided between teachers who agree (42%) and who disagree (45%) with the statement (Fig 6.8).

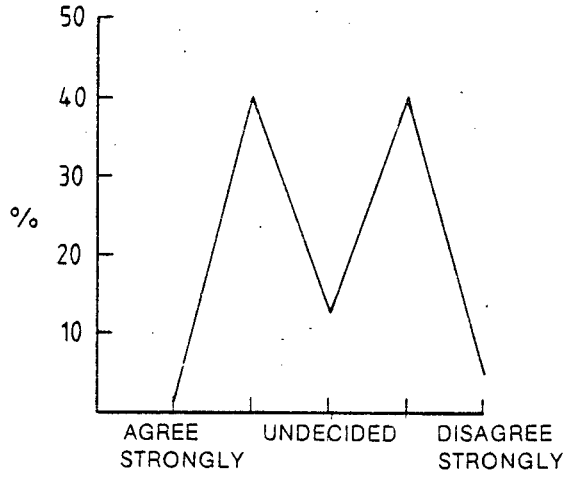


FIG. 6.8 RESPONSE DISTRIBUTION: Q. 48

The bi-modal distribution above suggests that a significant number of teachers are essentially conformists. Although an equal number are presumably prepared to resist presures from colleagues, a move towards the use of pupil-centred methodologies could be expected to gain momentum once the majority of teachers in schools employ third phase teaching practice.

The assumption that teaching practice is largely teacher-centred in nature is confirmed by responses to Q.49 in which 42% of teachers agree (or agree strongly) with the statement that pupil-centred approaches are fine in theory but not practical in reality (Fig 6.9). Nevertheless, and in direct contrast, 35% have entirely different feelings regarding the practicality of using pupil-centred teaching methods in the schools. Given this fact, and in the light of the previous question, the proportion (22%) of respondents who are undecided about the relative merits of the two approaches are likely to be swayed by majority response.

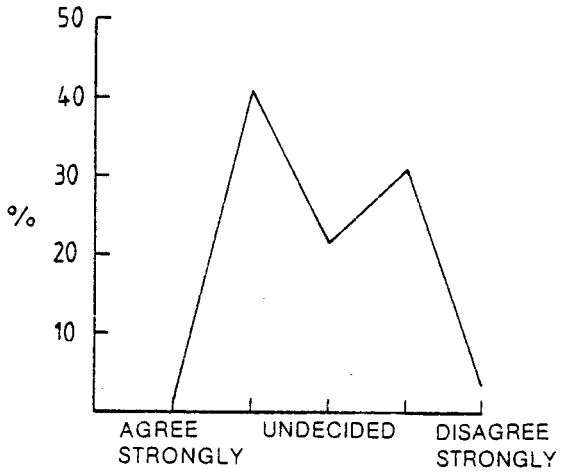


FIG. 6.9 RESPONSE DISTRIBUTION: Q. 49

Further support for the view that geography teachers are ambivalent in their attitudes towards a teacher-centred approach comes from their responses to Q.46 (Fig 6.10). Although 32% of teachers are positive towards the use of pupil-centred teaching techniques, the majority (54%) feel that it is idealistic to assume that teaching methodologies such as fieldwork, geographical games and role plays should constitute a significant part of a geography teacher's practice.

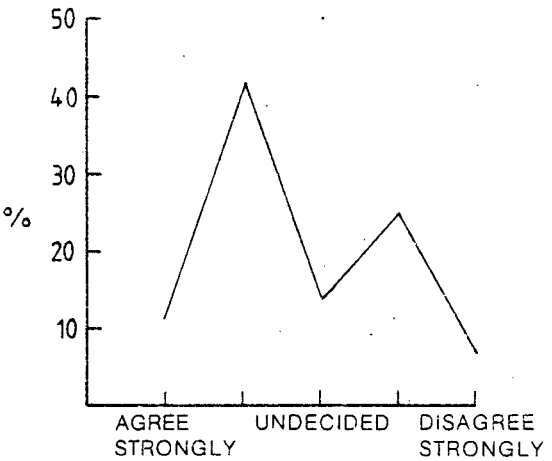


FIG. 6.10 RESPONSE DISTRIBUTION: Q. 46

Many teachers (43%) are also undecided about the benefits of using pupil- as opposed to teacher-centred methodologies.

This is clear from their responses to Q.50. However, slightly more teachers (45%) agree that pupil-centred methodologies encourage learning in pupils while only 12% disagree. Given the above it is not suprising that teacher responses to Q.47 indicate that the majority endorse, and presumably use, a directive, teacher-centred approach in geography education. In fact 75% of respondents feel the ideal time ratio for teacher talking as opposed to pupil working, should be 50% or more. A mere 6% of respondents feel that teachers should talk for 25%, and pupils work for 75% of lesson time. This suggests that geography lessons in Cape Education Department schools are strongly teacher-centred in nature.

Generally, teachers do not favour (or are undecided about) the value of pupil-centred techniques (Qs.46, 49 and 50) preferring instead to use a directive style of teaching (Q.47). Responses show a predisposition towards an approach where teachers talk and pupils listen. This is characteristic of second phase geography education in which teaching practice is concerned more with imparting content knowledge, than with the development of concepts, attitudes, values and skills.

6.2 ATTITUDES TOWARDS TRAINING AND TEACHING STYLE (Qs.51-76).

A total of 26 items concerned teacher perceptions of the value of pre-service training, the importance of geography methodology course components and influences upon teaching style. Responses to these items allow conclusions to be drawn regarding the impact of socialization factors upon teachers.

The general attitude of teachers towards the value of pre-service geography training generally, and the training they received in particular, was measured by responses to items 63 and 64 (Fig 6.11).

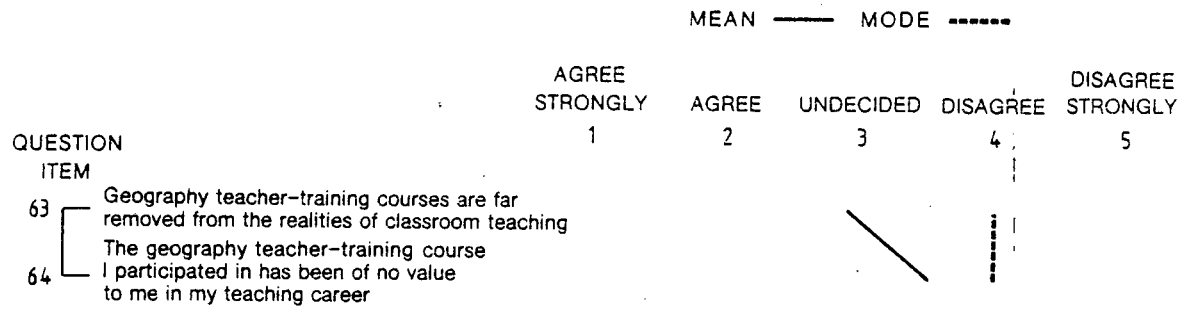


FIG. 6.11 THE VALUE OF GEOGRAPHY TRAINING

As statements in the questionnaire were generally positively worded these two items broke the monotony and were phrased in a negative manner. The most frequent response was disagreement with both statements (mode = 4) although mean scores suggest a lack of unanimity in perception of training value. These findings imply that most teachers perceive geography pre-service training as relevant to classroom reality and the pre-service training they received as valuable.

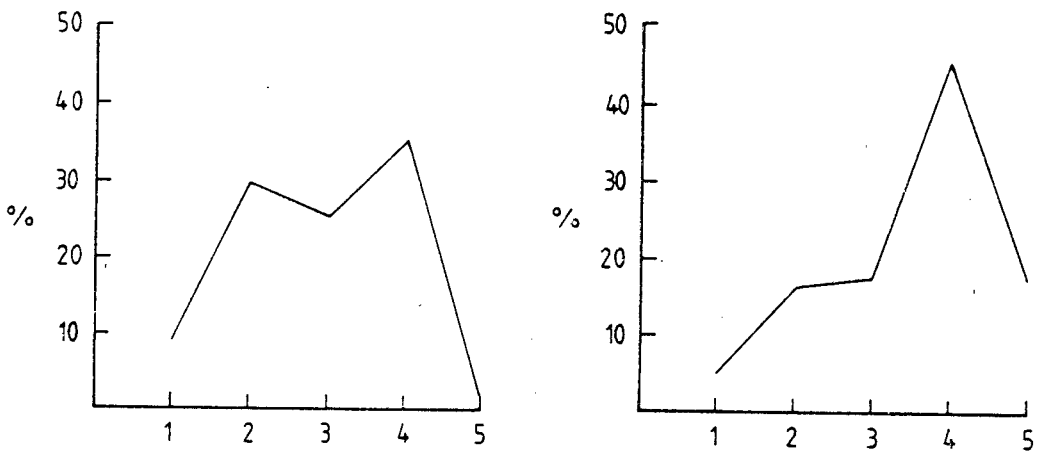
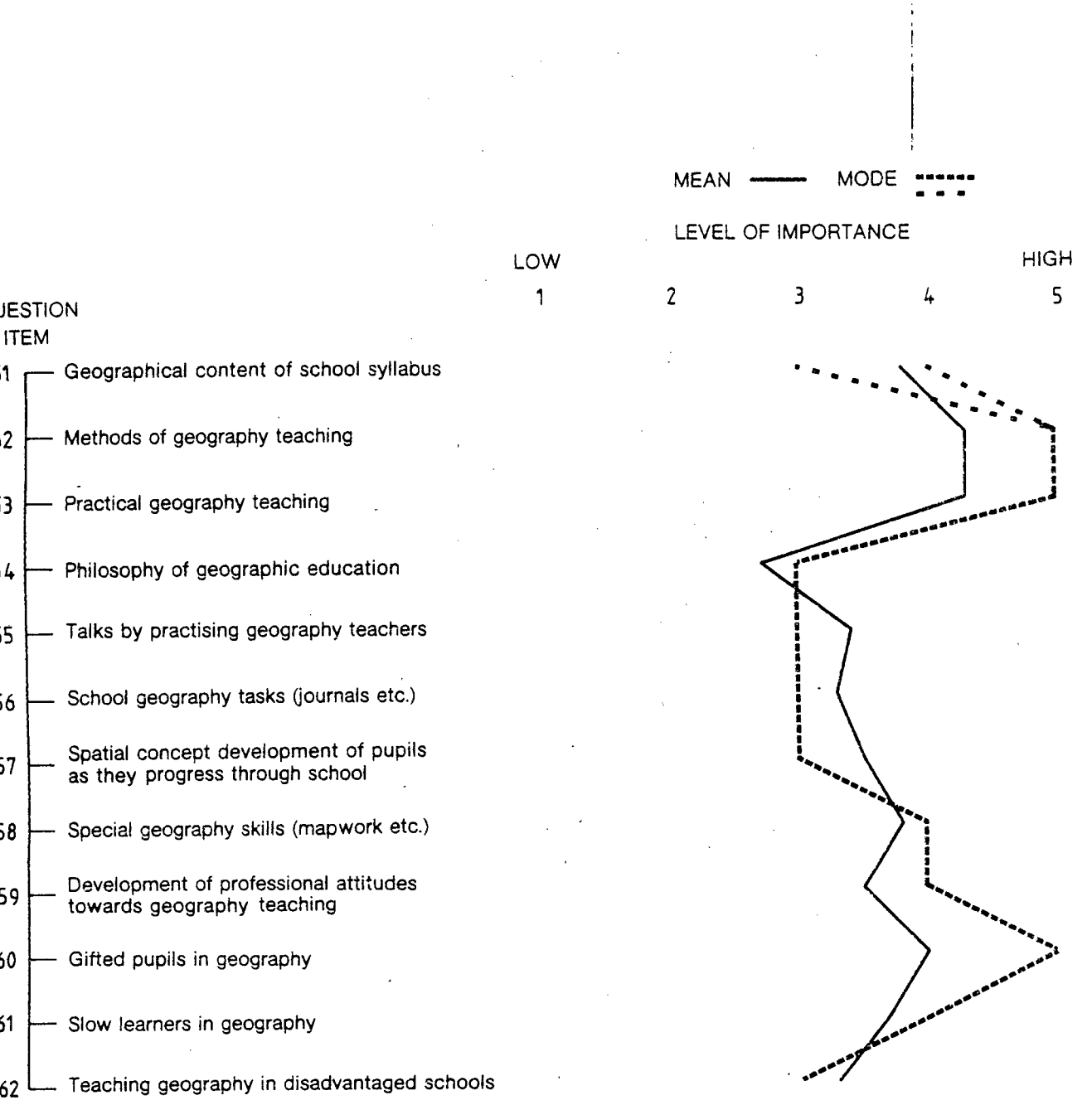


FIG. 6.12 RESPONSE DISTRIBUTION: Q. 63 and 64

The frequency polygons for Q.63 and Q.64 above (Fig 6.12) indicate that 38% and 26% of teachers respectively agree or agree strongly that training courses do not reflect classroom realities. Interestingly 9% and 5% respectively found them to be of no value at all. Coupled to the fact that 27% and 35% were undecided in their responses to items



IG. 6.13 RATING OF TRAINING COURSE COMPONENTS

63 and 64 respectively, it is clear that many teachers are not satisfied with the quality of pre-service geography teacher training programmes. If this is indeed the case, it is not surprising that the long-term socialization effects of training upon teaching practice should be minimal (section 3.1).

6.2.1 Rating of training course components.

Items in this section were aimed at establishing the importance of components commonly included in geography methodology courses. Responses were rated from a low level of importance (1) to high level of importance (5). Space was provided for teachers to record and comment on any other components not listed.

The mean and modal response values are presented in Figure 6.13. Overall, the ratings are medium to high (no item had a modal value of 2 or less). Mean scores are generally lower than modal values due to the spread of responses. Components concerned with teaching practice issues (Qs.52, 53 and 58), the development of professional attitudes (Q.59) and teaching of gifted pupils (Q.60) were rated most highly (modal score = 4 or 5). Similarly when items are ranked according to mean scores (Table 6.3) those items ranked highest, concern teaching practice issues (Qs.52 and 53); those relating to geographical content (Qs.51 and 58) are rated moderately high (rank 4 and 5); while those dealing with theoretical issues (Qs.54 and 57) or specific school issues (Qs.56 and 62) are perceived on average to be of least importance. The rating of the relative importance of components in geography teacher training programmes dealing with gifted pupils, slow learners and teaching in disadvantaged schools, are as expected and reflect the insular nature of the education system in South Africa. A lack of concern with the teaching of geography in disadvantaged schools reflects the fact that 'White' schools are not materially disadvantaged in the Cape Province where adequate finance, teaching materials and facilities are the norm. Correspondingly there is a concern for the teaching

RANK	MEAN	ITEM	TRAINING COMPONENTS
1	4.33	52	*Methods of geography teaching*
2	4.28	53	*Practical geography teaching*
3	4.02	60	*Gifted pupils in geography*
4	3.79	51	*Geographical content of school syllabus*
5	3.77	58	*Special geography skills (map work etc)*
6	3.69	61	*Slow learners in geography*
7	3.51	59	*Development of professional attitudes*
8	3.38	55	*Talks by practising geography teachers*
9	3.37	57	*Spatial concept development of pupils*
10	3.31	56	*School geography tasks (journals etc)*
11	3.29	62	*Teaching geography in disadvantaged schools*
12	2.66	54	*Philosophy of geography education*

TABLE 6.3. RANKING OF ATTITUDES REGARDING THE IMPORTANCE OF TRAINING COMPONENTS.

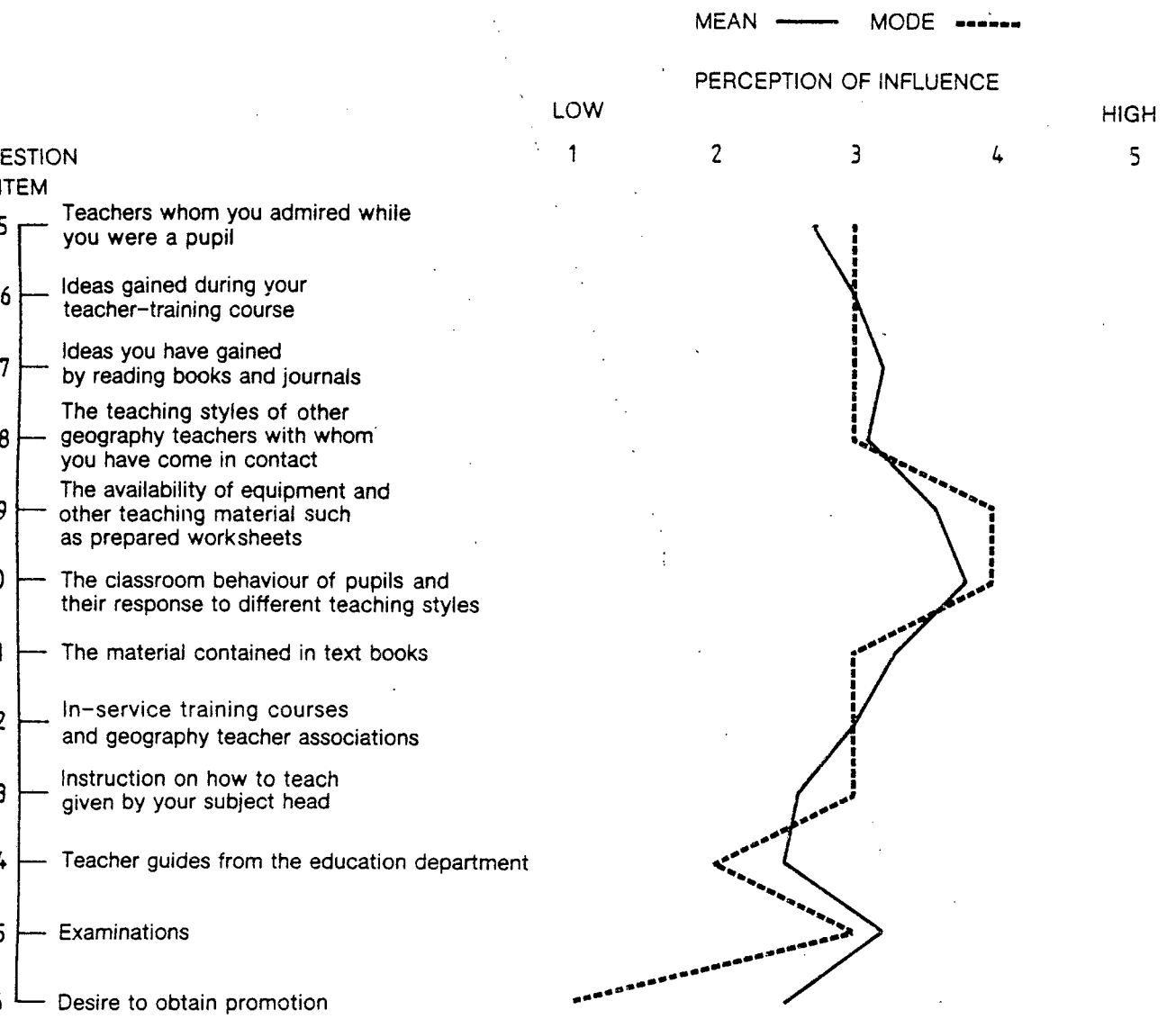
of gifted pupils, as evidenced not only by teacher responses, but also by the increasing number of schools running gifted pupil programmes.

Item 51 exhibits a bi-modal profile (mode = 3 and 4) and reflects respondents' perceptions of the importance of including syllabus content in training programmes. The importance of geographical content in methodology courses (62% rate it as 4 or 5) supports the earlier findings regarding the subject-based concerns of respondents.

The five components ranked as least important in terms of mean scores have modal values of 3. These deal with theoretical educational issues (Qs.54 and 57), school administration (Q.56), teaching in disadvantaged schools (Q.62) and talks by practising teachers (Q.55).

Few teachers recorded other components which they felt should be incorporated into pre-service geography methodology courses. Those that did, however, mentioned and rated the following as either 4 or 5 in importance, *viz.*, group work, project planning, setting examinations and tests, teaching mixed ability groups, fieldwork, team teaching and the use of audio-visual aids. These methodologies reinforce the notion that teachers are mainly interested in components which concern teaching practice issues. In reality they could all be subsumed under question items 52 and 53, i.e., methods of geography teaching and practical geography teaching.

Teacher attitudes towards training components clearly indicate that classroom teaching experience is more highly valued than theoretical educational issues. In fact, teaching practice issues are favoured above those concerning general classroom administration e.g. the keeping of journals, day books and registers (Q.56). The implication is that in terms of teacher socialization, issues relating directly to teaching practice can be expected to be more influential in changing classroom decision-making and



G. 6.14 INFLUENCES ON TEACHING STYLE

behaviour than those involving theoretical and philosophical debate.

6.2.2 Influences on teaching style.

Given the concern with classroom practicalities, the next step is to establish what teachers perceive as influencing their choice of teaching style. The mean and modal values of teacher responses (Fig. 6.14) indicate that no single item is seen as being particularly important in influencing teaching style and there is only a small difference between the highest and lowest mean scores (Table 6.4). The only modal responses which suggest a slight influence upon the adoption of a particular teaching style are the availability of teaching aids and the classroom behaviour of pupils (Qs. 69 and 70). Apparently school experience has a greater influence upon teacher socialization than training, and attitudes towards teaching style and the use of methodologies develop as a result of personal experience in the classroom rather than from the influence of past teachers. This finding extends theory (section 3.1) in that it suggests the interaction between pupils and teacher is more important in the process of socialization than the influence of past teachers (the influence of past teachers is ranked ninth out of twelve items) (Table 6.4). Responses to this item (Q.65) show that perceptions range from very low to moderately high but only 8% rate this item as very high in importance (Fig. 6.15). However, 30% of respondents feel that past teachers have influenced their adoption of a particular teaching style (rating = 4 or 5).

RANK	MEAN	ITEM	INFLUENCES ON TEACHING STYLE
1	3.79	70	*Classroom behaviour of pupils*
2	3.55	69	*Availability of equipment and prepared teaching material*
3	3.33	71	*The material contained in textbooks*
4	3.21	67	*Ideas gained by reading books and journals*
5	3.16	75	*Examinations*
6	3.12	68	*Teaching styles of other geography teachers*
7	3.02	72	*In-service training courses and teacher associations*
8	3.01	66	*Ideas gained during teacher-training course*
9	2.70	65	*Teachers admired while a pupil*
10	2.58	73	*Instruction given by subject head*
11	2.50	74	*Teacher guides from education department*
12	2.48	76	*Desire to obtain promotion*

TABLE 6.4. RANKING OF PERCEPTIONS REGARDING INFLUENCES ON TEACHING STYLE.

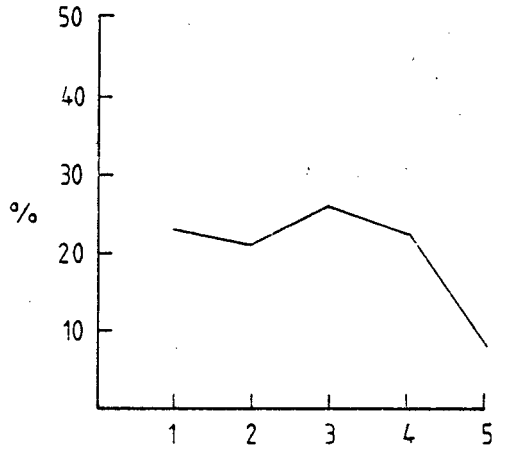


FIG. 6.15 RESPONSE DISTRIBUTION: Q. 65

Although this finding lends support to those who advocate that teacher socialization is largely accomplished prior to the undertaking of formal pre-service teacher training, the relative position of the item in the rankings (Table 6.4) indicates that anticipatory socialization does not play as great a role as contended by Lortie (1975) and others (section 3.1).

Items ranked 2, 3 and 4 (Qs.69, 71 and 67) all relate to the influence of teaching aids, *viz.*, the availability of equipment, prepared worksheets, textbooks, books and journals (Table 6.4). The influence of formal educational programmes (pre-service and in-service) are not highly rated by teacher respondents (Qs.66 and 72). In fact it would appear that the least important influences upon teaching style are instruction from subject heads, teacher guides from the education department and desire to obtain promotion (Qs.73, 74 and 76). However, the importance of obtaining promotion (Q.76) gives rise to a wide spread of responses (Fig. 6.16). Although ranked on average the least important factor influencing teaching style, 23% of respondents rated this item as 4 or 5 in importance.

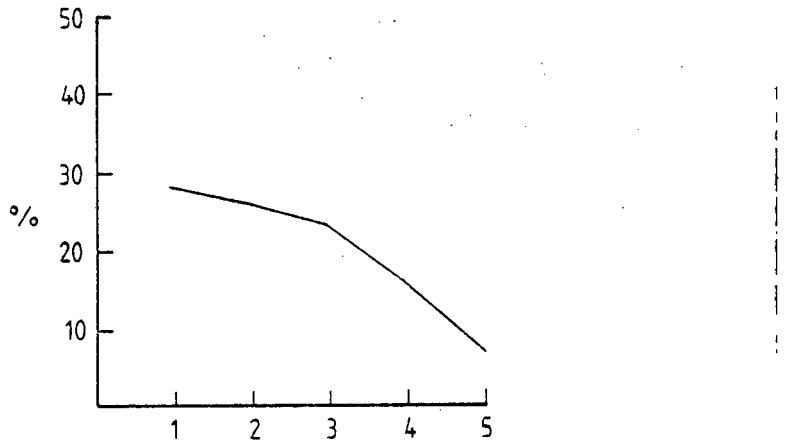


FIG. 6.16 RESPONSE DISTRIBUTION: Q. 76

The implication of the above finding is that teachers are influenced in their classroom behaviour by the desire to win the approval of senior colleagues. The teaching style of senior teachers is thus an important influence on many teachers' choice of practice. When the responses to Q.68 and Q.73 are analysed it appears that 39% and 22% of teachers respectively rate the influence of these items highly *viz.*, the influence of other teachers upon choice of teaching style.

Few teachers indicated any other factors which influenced their choice of teaching style. Those mentioned, however, and rated as 4 or 5 in importance were class size, the differing abilities of pupils, lack of time, experience of teaching other subjects, understanding of geography content, need to complete the syllabus, team teaching and the desire to be innovative. Again it is clear that school issues influence choice of teaching style and thereby methodology use.

Overall, teacher responses in this section indicate that pupil behaviour, the availability of equipment, prepared teaching material and textbooks are the most influential factors affecting choice of teaching style. Training influences are not highly rated. In particular, efforts by the education department to improve teaching standards by means of in-service courses and the publication of teaching guides appears to have little influence upon teachers'

choice of teaching style. These findings strongly support Denscombe's (1982) contention that classroom experience is more important than training experience in determining teaching style.

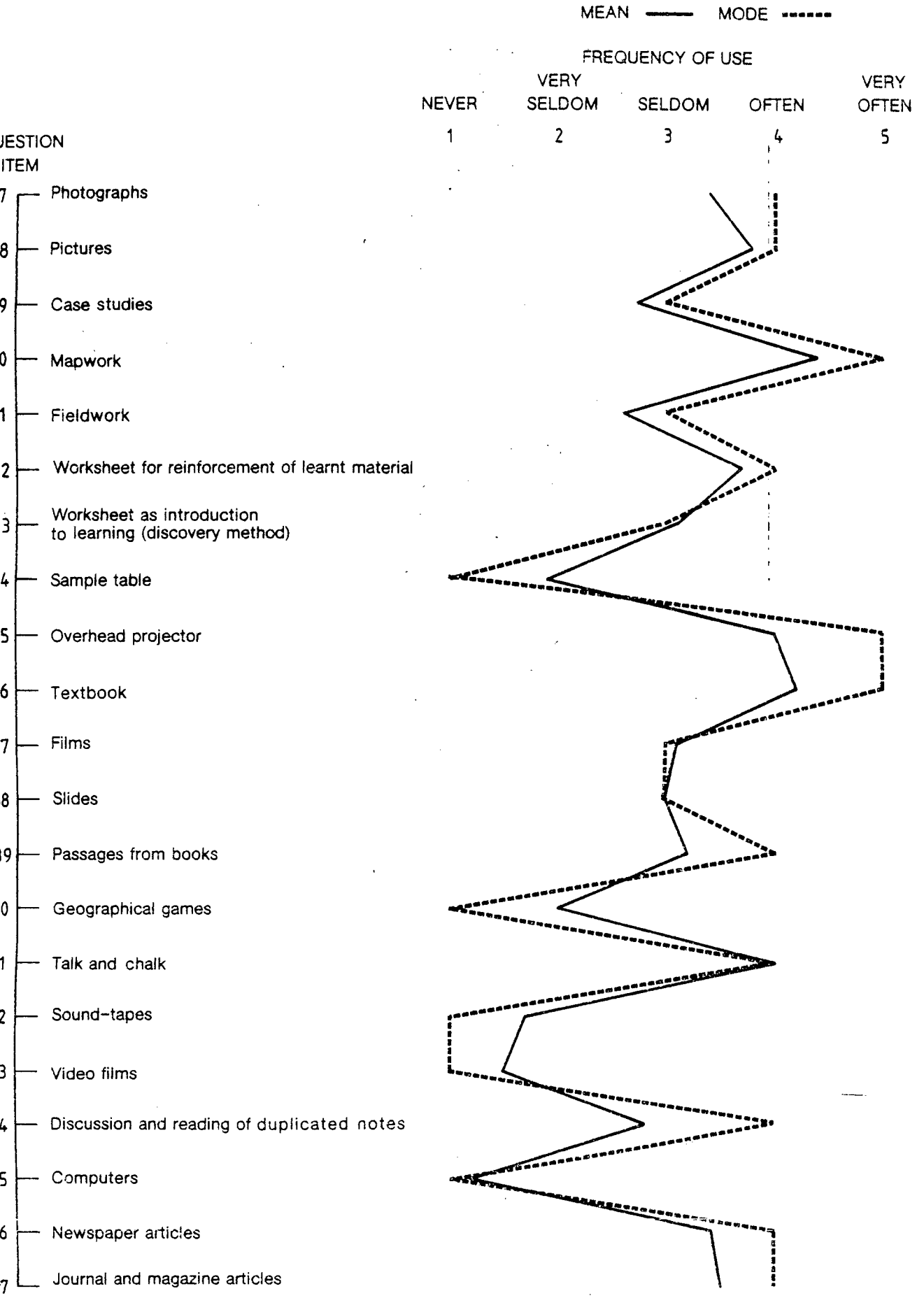
6.3 ACTUAL AND IDEAL METHODOLOGY USE (Qs. 77 - 118).

As classroom experience is so important, analysis of teachers' actual and ideal use of methodology should provide a useful insight. Due to the importance of teaching practice in third phase geography education, establishing teacher methodology use makes it possible to speculate on the nature of geography education in the schools.

6.3.1 Use of teaching methodologies.

In this section of the questionnaire teachers were asked to indicate the frequency with which they used certain teaching aids and techniques. Each question item was rated on a 5 point scale from 'never' (1) to 'very often' (5). The frequency of methodology use enabled the relative value of items to be compared and thus indicated teacher preference for teacher- or pupil-centred approaches (Fig. 6.17). Items having high modal values are mapwork, overhead projectors and textbooks (Qs.80, 85 and 86) followed by those which generally characterise a teacher-centred approach to geography education e.g., worksheet for reinforcement of learnt material, discussion and reading of duplicated notes and talk and chalk (Qs.82, 91 and 94). Those items exhibiting low modal values are generally pupil-centred in their nature or expensive e.g., sample tables, geographical games, video films and computers (Qs.84, 90, 93 and 95).

The range of methodologies commonly used by teachers are limited. Geographers tend to use a few methodologies frequently (mapwork, textbook, overhead projector and talk and chalk), and under-utilise those best suited to the achievement of third phase syllabus aims *viz.*, geographical



G. 6.17 USE OF TEACHING METHODOLOGIES

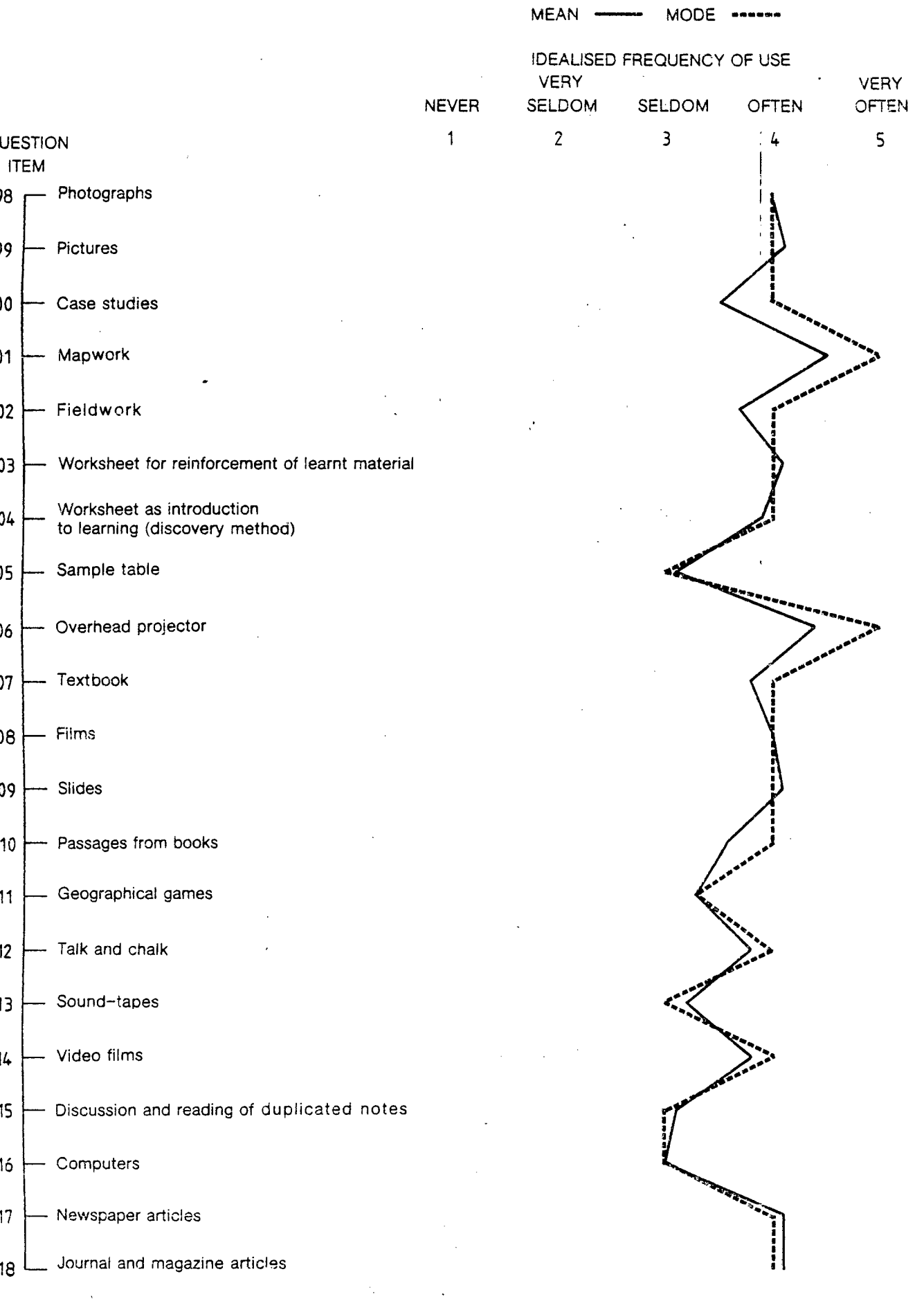
games, fieldwork, sample tables, computers and worksheets involving problem- solving (Table 6.5). Methodologies which are pupil-centred in nature (with the notable exception of mapwork) are low in the rankings (Qs.83, 81, 90, 84 and 95), as are those which are costly (Qs.93 and 95). In terms of mean scores there are two major breaks in methodology use. These occur between ranks 16/17 and 20/21 and would indicate that the use of geographical games, sample tables, sound-tapes and video films is considerably less than that of fieldwork and other methodologies ranked above. The use of computers (a particularly new and costly aid) is well below all other items. Clearly geography teachers in the Cape Education Department use teacher- rather than pupil-centred methodologies in the classrooms.

Although few teachers indicated that they employed other aids and techniques, the following were recorded and rated as being used often or very often: film strips, aerial photographs, library work, radio newscasts, debates, pupil tutorial presentations, assignments, talks by subject specialists, physical models and group work. Of these library work, debates, tutorials, assignments and group work are pupil-centred in nature. Only 4 teachers indicated that they used group work although it is an important pupil-centred teaching methodology. On reflection it is felt that the omission of group work as an item in the questionnaire was unfortunate and if the survey is replicated it is suggested that this item should be included.

Teacher responses reflecting the frequency with which they use particular teaching methodologies supports the contention that geography teaching practice in Cape Education Department schools is second phase in nature. Teachers apparently see themselves as the focus of the learning process and pupils as the objects. Unfortunately, therefore, Cape Education Department geography teachers all too often adopt a 'vessel filling' or 'knowledge banking' approach to education (Mabetoa, 1985).

RANK	MEAN	ITEM	TEACHING METHODOLOGIES
1	4.37	80	*Mapwork*
2	4.17	86	*Textbook*
3	4.09	85	*Overhead projector*
4	4.05	91	*Talk and chalk*
5	3.78	78	*Pictures*
6	3.66	82	*Worksheet (reinforcement of learnt material)*
7	3.48	97	*Journal and magazine articles*
8	3.41	96	*Newspaper articles*
9	3.36	77	*Photographs*
10	3.22	89	*Passages from books*
11	3.12	87	*Films*
11	3.12	83	*Worksheets-introduction to learning (discovery method)*
13	2.98	88	*Slides*
14	2.82	94	*Discussion and reading of duplicated notes*
15	2.73	79	*Case studies*
16	2.62	81	*Fieldwork*
17	1.91	90	*Geographical games*
18	1.86	84	*Sample table*
19	1.74	92	*Sound-tapes*
20	1.52	93	*Video films*
21	1.23	95	*Computers*

TABLE 6.5 RANKING OF THE USE OF TEACHING METHODOLOGIES.



IG. 6.18 IDEALISED USE OF TEACHING METHODOLOGIES

6.3.2 Idealised use of teaching methodologies.

The purpose of these questions were to assess teacher attitudes towards the idealised use of teaching methodologies in geography education. Responses would relate to perceptions of the frequency with which teaching methodologies should ideally be used, thereby indirectly indicating attitudes towards third phase practice.

Modal scores (Fig. 6.18), which lie close to mean scores, indicate that teachers feel the majority of the teaching aids and techniques presented should be used often (14 out of 21 items). This is in marked contrast with their actual methodology use and indicates a strong preference for the use of a wide range of methodologies. However, closer scrutiny of the responses shows that the methodologies teachers feel should be used most frequently are those usually associated with a teacher-centred approach to education (Table 6.6). The first 8 methodologies in the ranking, with the exception of mapwork, are those normally used by geographers when conducting a 'lecture-style' presentation of geographical content (Qs. 106, 117, 99, 103, 118, 109 and 98). These methods of instruction brighten geography lessons, although in essence the approach is similar to that of talk and chalk. In contrast both modal and mean scores indicate that even the idealised use of pupil-centred methodologies is not highly rated *viz.*, case studies, field work, sample tables, geographical games and computers (Qs.100, 102, 105, 111, and 116).

Methodologies not included in the questionnaire but mentioned by teachers as those which should ideally be used often or very often were library work, interviews, guest speakers, projects and once again, group work. However, as only a few mentioned these methodologies, it implies that most teachers do not consider them.

There is a high correlation between teachers' actual and idealised methodology use, (r_s = 0.76) which is significant at above the 99,5% level (Table 6.7). However, a few items

RANK	MEAN	ITEM	TEACHING METHODOLOGIES
1	4.50	101	*Mapwork*
2	4.42	106	*Overhead projector*
3	4.10	117	*Newspaper articles*
4	4.09	99	*Pictures*
5	4.08	103	*Worksheet (reinforcement of learnt material)*
6	4.07	118	*Journal and magazine articles*
7	4.05	109	*Slides*
8	4.00	98	*Photographs*
8	4.00	108	*Films*
10	3.89	104	*Worksheet introduction to learning (discovery method)*
11	3.84	112	*Talk and chalk*
12	3.83	107	*Textbook*
13	3.78	114	*Video films*
14	3.72	102	*Fieldwork*
15	3.64	110	*Passages from books*
16	3.54	100	*Case studies*
17	3.18	113	*Sound-tapes*
18	3.11	115	*Discussion and reading of duplicated notes*
19	3.09	105	*Sample table*
20	3.03	111	*Geographical games*
21	3.00	116	*Computers*

TABLE 6.6 RANKING OF IDEALISED USE OF TEACHING METHODOLOGIES.

TEACHING METHODOLOGIES	RANK1	RANK2	MOVE
Photographs	9	8	+1
Pictures	5	4	+1
Case studies	15	16	-1
Mapwork	1	1	0
Fieldwork	16	14	+2
Worksheet (reinforcement of learnt material)	6	5	+1
Worksheet as introduction to learning (discovery method)	11	10	+1
Sample table	18	19	-1
Overhead projector	3	2	+1
Textbook	2	12	-10
Films	11	9	+2
Slides	13	7	+6
Passages from books	10	15	-5
Geographical games	17	20	-3
Talk and chalk	4	11	-7
Sound-tapes	19	17	+2
Video films	20	13	+7
Discussion and reading of duplicated notes	14	18	-4
Computers	21	21	0
Newspaper articles	8	3	+5
Journal and magazine articles	7	6	+1

RANK 1 = Ranking of use of teaching methodologies.
RANK 2 = Ranking of idealised use of teaching methodologies.
MOVE = Difference between rank 1 and rank 2 (i.e. actual and ideal).

TABLE 6.7. COMPARISON OF RANKING OF USE AND IDEALISED USE OF TEACHING METHODOLOGIES.

show large changes in rank. Items exhibiting large positive moves between actual and idealised use are those concerning the use of video films (+7), slides (+6) and newspaper articles (+5). A positive move indicates that teachers perceive that the aid or technique should be used more frequently than is presently the case in schools and suggests a desire for more equipment. The above three aids are normally associated with bringing 'reality' into the classroom environment. Experience indicates, however, that in practice their use is generally associated with a teacher-centred approach to learning, as they take the place of the teacher in conveying content information to pupils who remain largely passive in the learning process.

Methodologies displaying a large negative move in terms of actual and idealised rankings are textbooks (-10), talk and chalk (-7), passages from books (-5) and the discussion and reading of duplicated notes (-4). These aids and techniques are associated with a teacher-centred approach to learning and their large negative moves in ranking indicate teacher awareness of their overused nature. This finding suggests that teachers may be open to the adoption of third phase teaching practice. In order to establish whether this was indeed the case, methodologies associated with pupil-centred teaching were considered and found to exhibit small moves between actual and idealised use. Fieldwork (+2), worksheets as introductions to learning (+1), sample tables (-1) and geographical games (-3) show little difference between actual and idealised use. Apparently Cape Education Department geography teachers do not perceive the need for a pupil-centred approach in geography education. It would appear rather that their ideal is to use methodologies which help to enliven or brighten up teacher-centred performances.

In the final section of the questionnaire teachers were asked to account for differences existing between their actual and ideal methodology use (Q.119). Responses to this open-ended question indicate that geography teachers are aware of the discrepancy between the methodologies which

authorities than on devising teaching strategies that will develop pupil concepts, attitudes and skills.

Time constraints are clearly perceived by teachers to be a major factor affecting their approach and use of methodologies. This supports certain of the contentions included in section 4.2.1. Many consider that the length of the syllabus in relation to the time allocated to geography lessons in the school causes them to adopt a teacher-centred approach. The compulsion to teach all content sections is clear and is directly related to teachers' perception of the importance and status of the syllabus. The reluctance to leave out any section is reinforced by the nature of the examinations even when these are set internally, a finding which again supports the argument in section 4.2.1. Teacher comments also reveal that they feel that the syllabus is sacrosant even though subject advisors/inspectorate are on record as encouraging teachers to regard syllabuses as content guides rather than compulsory content outlines. Notwithstanding this, many teachers are reluctant to use any discretion in their choice of content and the depth to which it is to be covered. These attitudes are indicative of a second phase approach where conveying syllabus content is more important than the development of pupil concepts, skills, attitudes and values.

Another factor seen to exert pressure is the burden of extra-mural activities which reduces the time available for lesson preparation. In this regard fieldwork is the area of geography teaching practice which reportedly suffers the most from time constraints. Many teachers mention that they believe fieldwork to be important but due to its time-consuming nature (both in preparation and execution) it is seldom undertaken.

Teachers also hold that the school system works against the use of pupil-centred geography methodologies. Syllabus, examinations and colleagues are all highlighted as affecting teaching practice decision-making in geography education. In particular, examinations are felt to constrain practice by determining the content needing to be covered, as well as influencing teacher status. Typical comments relating to the part played by examinations are: "I am preoccupied with

expressed by one respondent who states that "I find that by concentrating mostly on talk and chalk I gain the best results and satisfaction". School experience ensures that a directive, teacher-centred approach works well in the education system. As one teacher remarked in relation to the use of pupil-centred methodologies, "Dit wat teoreties baie goed lyk, werk nie altyd in die praktyk nie" (That which looks good theoretically, does not always work in practice).

6.4 SUMMARY.

Before changes can be made in geography education it is necessary to ascertain and understand teachers' perceptions of issues affecting their decision-making in classrooms. This is particularly important when change is aimed at encouraging the use of non-directive, pupil-centred teaching practice necessary in third phase geography education.

In the light of the data collected in the survey the following generalisations regarding Cape Education Department geography teacher attitudes and practice are highlighted.

Teachers are subject-orientated rather than pupil-centred in terms of their reasons for teaching. Job related issues are perceived as relatively unimportant in terms of career choice.

Teachers perceive the conveying of facts about the world to be the most important aim of geography education.

Teachers hold that knowledge should be included for its geographical significance rather than its use in developing concepts, skills attitudes and values.

Teachers regard the development of mapwork skills, problem-solving and appreciation of the environment as important.

Insofar as teachers feel that geography education should be concerned with the development of attitudes, they favour the development of Christian National attitudes rather than those concerning socio-economic or socio-political issues.

Teachers hold that geography methodology courses should primarily provide students with knowledge of practical issues affecting the teaching of geography in the classroom.

Choice of teaching style is largely influenced by the classroom behaviour of pupils and the availability of teaching aids and prepared teaching material.

Teachers support a directive, teacher-centred approach towards geography education in which pupils are perceived as passive recipients of geographical knowledge.

Teachers use and prefer teacher- rather than pupil-centred methodologies and their use of aids and techniques is greatly influenced by syllabus and examinations.

From the above it is clear that geography teachers in the Cape Education Department exhibit attitudes towards, and practice in geography education, which can be classified as second phase in nature. There is a general emphasis on teaching geographical content as opposed to concern with the use of content to develop pupils' concepts, attitudes and values. It is generally perceived that the aims of school and university geography should be similar. Inevitably, therefore, teaching practice is characterised by the use of teacher- rather than pupil-centered methodologies and concomitantly school experience is more important in influencing teaching style choice and methodology use, than training.

The necessity of generalising about all teachers results in a loss of detail which may hide interesting features. The obvious question is whether, if teachers are divided into subsets and their responses analysed, there are any real differences between them? Whatever the outcome, analysis of this type will help identify where attention should be focused, especially if the intention is to bring about change in the nature of geography education in the Cape Education Department.

CHAPTER SEVEN

GEOGRAPHY TEACHER ATTITUDES AND PRACTICE : WITHIN-GROUP DIFFERENCES.

Although the attitudes and practice of geography teachers in the Cape Education Department as a group are second phase in nature, it is possible that certain individuals are less second phase than others. Insight into differences between teacher attitudes and practice may be gained by dividing respondents into groups according to specific characteristics. Groupings used in this study reflect differences in training, school and personal experience i.e., length of training, training period, teaching level, school location, language medium, gender and school post. These categories were chosen as they are commonly mentioned as factors which lead to differences in teacher attitudes and practice (Lacey, 1977; Morrison and McIntyre, 1973; Shipman, 1975; Smit, 1985). Although school post differences are also investigated, the findings are presented in the following chapter which focuses on the socialization process of geography teachers.

All the data is sorted into each of the seven groups listed above and descriptive statistics together with histograms of group responses for individual question items were obtained by applying the P3D package of the Biomedical Computer Programs Statistical Software (Dixon, 1983). An example of the printout from this program is seen in Appendix H. The measures of central tendency as well as the histograms produced by the P3D package are used in the interpretation of group responses to items.

This study is not merely concerned with establishing the characteristics of each group but goes further and determines whether the differences between them are real or not. As theory holds that it is probable that members of a particular group could differ in their attitude and practice from those in another, a hypothesis testing exercise was

carried out. In this regard the following hypothesis was formulated :

Ho : the distribution of group responses to items is identical

Ha : the distribution of group responses to items indicates shifts in response locations.

The alternate hypothesis (Ha) is couched in non-directional terms as it was deemed important to identify both positive and negative shifts in the response locations of the different groups (i.e. two-tailed tests are used). Because the teacher population cannot be assumed to be normally distributed the hypothesis has been evaluated by means of non-parametric tests.

Due to the ordinal nature of response data the Mann-Whitney and Kruskal-Wallis tests were appropriate to identify items exhibiting significant differences in group response locations. The Mann-Whitney test is applied in cases where respondents fall into two groups, e.g. male/female. It is one of the most powerful of the non-parametric tests which can be used to determine whether two independent groups have been drawn from the same population (Siegel, 1956). The test establishes the significance of the difference between median values and can be used on small, medium and large samples. The Kruskal-Wallis test was applied in cases where more than two groups of respondents were recognised. This test performs a one-way analysis of variance by ranks and determines significant differences between median values. To obtain these statistics for respondent groups the P3S package of the Biomedical Computer Programs Statistical Software (Dixon, 1983) was applied to the data. An example of the P3S printout may be seen in Appendix I. A characteristic of the package is that where a respondent fails to answer an item in the questionnaire the individual's total data set is rejected. This has the advantage of overcoming the bias introduced by selectively

answering particular questions but has the effect of decreasing the sample size to 170 out of the possible 313.

The Mann-Whitney and Kruskal-Wallis statistical tests were used as a screening process to identify items where group response locations reflect real differences. In using these tests, cognisance is taken of the fact that the range in possible values is small (0 - 5) and if wide deviations are evident in data, shifts in response location may not be easily detected. In such cases the probability of a type 1 error is high and therefore in multi-modal cases, histograms have been checked to establish if between-group differences could exist. This procedure was seldom necessary as the majority of data being compared were skewed and peaked in nature.

The tests were carried out on all questionnaire items and therefore it is important to use a relatively high significance level in order to reduce the probability of accepting Ho when it is not true (type 2 error). The probability of recognising a real response difference was therefore set above the 90% level. Items where $p \geq 0,10$ have not been regarded as sufficiently unambiguous for one to reject Ho and are therefore not discussed. Those items reflecting a value of $0,05 \leq p < 0,10$ are taken to indicate that there are 'possibly' significant differences between group response locations while those with $0,00 \leq p < 0,05$ are considered to reflect 'significant' differences.

7.1 RESPONDENTS GROUPED ACCORDING TO LENGTH OF TRAINING.

In the light of the discussion in Chapter 4 it could be expected that the length of training in academic and professional institutions would impact upon the attitudes of geography teachers towards, and practice in, geography education. Due to the nature of pre-service geography training it is assumed that the longer the training continues, the greater the likelihood that teachers will exhibit attitudes and practice consistent with a third phase

view of geography education. In order to investigate this assumption, respondents were placed into one of three groups, *viz.*, 2 years or less training (n = 36), 3 to 4 years training (n = 101), and 5 or more years training (n = 33). Length of training includes time spent in both academic and professional training. The Kruskal-Wallis test was applied to this data, allowing the analysis of between-group differences in attitudes and practice.

Table 7.1 presents the probability that the differences between respondents when grouped according to length of training could have occurred by chance alone. Generally significant differences occur with the greatest frequency in those sections dealing with teacher attitudes to geography education and practice (in 32% of the items Ho could be rejected) and with the use of teaching methodologies (where Ho could be rejected in 29% of cases).

Concerning the personal characteristics of teachers grouped according to length of training, real differences emerge from answers to items 1, 3, 6, 7 and 8. Analysis of response histograms indicates that :-

(i) significantly more males than females have 5 or more years training.

(ii) those teachers who have 2 years or less training teach almost exclusively at the standard 8 level or below. Those with 5 or more years of training teach almost without exception up to the standard 10 level.

(iii) there is a significant difference in the proportion of teachers with 5 or more years training who teach predominantly through the medium of English, from those having 2 years or less training who teach predominantly through the medium of Afrikaans.

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	*0,02*	31	0,19	61	0,71	91	0,19
2	----	32	0,12	62	0,44	92	0,73
3	*0.06*	33	0,15	63	0,54	93	0,28
4	0,83	34	0,60	64	0,23	94	0,71
5	0,27	35	*0,00*	65	0,56	95	0,19
6	*0,00*	36	*0,00*	66	0,59	96	*0,04*
7	*0,00*	37	0,26	67	*0,00*	97	0,69
8	*0,05*	38	*0,00*	68	0,84	98	0,99
9	0,51	39	*0,05*	69	0,39	99	0,27
10	0,12	40	0,35	70	0,32	100	*0,01*
11	0,92	41	0,60	71	0,33	101	0,89
12	0,45	42	*0,00*	72	0,25	102	*0,00*
13	0,94	43	0,63	73	*0,04*	103	0,44
14	0,66	44	0,30	74	0,26	104	0,72
15	0,49	45	*0,00*	75	0,90	105	*0,02*
16	0,15	46	0,87	76	0,25	106	0,33
17	0,54	47	0,36	77	0,36	107	0,21
18	0,14	48	0,13	78	0,73	108	0,75
19	0,17	49	0,36	79	*0,00*	109	0,56
20	0,91	50	0,11	80	0,11	110	0,67
21	0,49	51	0,77	81	*0,00*	111	0,92
22	0,10	52	0,81	82	0,36	112	0,36
23	0,64	53	0,60	83	0,71	113	0,77
24	*0,08*	54	0,56	84	*0,00*	114	0,63
25	*0,02*	55	*0,09*	85	*0,03*	115	0,79
26	0,41	56	0,11	86	0,39	116	*0,02*
27	*0,06*	57	0,36	87	0,13	117	0,24
28	0,11	58	*0,06*	88	*0,04*	118	0,89
29	*0,08*	59	0,24	89	0,96		
30	0,57	60	0,99	90	0.22		

Length of training: 2 years or less n = 36
3 to 4 years n = 101
5 years or more n = 33

TABLE 7.1. LENGTH OF TRAINING: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (KRUSKAL - WALLIS TEST).

(iv) teachers with 2 years or less training predominate in schools located in small towns. Those who have 5 years or more training usually teach in metropolitan schools.

(v) those teachers who attended a university have more years of formal training than those trained at colleges of education.

In general, therefore, geography teachers with the highest qualifications are male, teach up to standard 10 level through the medium of English and are located in metropolitan schools. Those with lower qualifications are females who teach at the standard 8 level or below through the medium of Afrikaans in small town schools.

7.1.1 Attitudes towards geography education (Qs.9 - 50).

The null hypothesis can be rejected for items 24 and 25 indicating that there are real difference in the perceptions of respondents' towards job satisfaction when grouped according to length of training (Table 7.1). Response histograms show that the majority of respondents with 3 or 4 years of training very seldom think they have made a mistake in becoming a teacher (Q.24) and are also most satisfied as geography teachers (Q.25). Respondents with 2 years or less training seldom think they made a mistake becoming a teacher (Q.24) but as a group they are the least satisfied with being geography teachers (Q.25). Those with 5 years or more training question their career choice more frequently than the other two groups (Q.24) but are relatively satisfied with being geography teachers (Q.25). It appears, therefore, that as length of training increases so does teacher dissatisfaction with career choice and satisfaction with teaching subject. This result may reflect dissatisfaction with rewards from increased training as well as a greater subject concern leading to, or arising from, an increase in length of training.

As expected there were no real differences in reasons given for career choice when respondents were grouped according to length of training. Furthermore length of training has little or no impact upon teaching practice decision-making. However, Ho could be rejected in 32% of the items reflecting group attitudes regarding geography education *viz.*, Qs.27, 29, 35, 36, 38, 39, 42 and 45 (Table 7.1). Regarding knowledge and concept issues, only one item, that dealing with the place of regional geography at school level (Q.35), evoked a significant difference in response. In this regard the most frequent response of those with 2 years or less training is to agree that more regional geography should be included in the school syllabus while those with 3 or more years of training disagree. Generally the longer the training undergone by teachers, the more likely they are to oppose an increase in regional geography content in the school syllabus. Presumably those with the longest period of training have been more influenced by the 'new' geography as taught in universities.

Items concerned with the development of skills in geography education indicate that as the length of training increases, so teachers' perceptions of the importance of developing skills relating to environmental appreciation and problem solving increase (Q.36 and Q.39). In this regard it would seem that the longer the training the more likely it is that respondents will hold a third phase view of the place of skill development in geography education.

Differences in the location of group responses to statements concerning the teaching of attitudes in geography education reveal that as training length increases so perceptions of the importance of Christian National Education, i.e. developing a love for country and culture, decreases, while the importance of developing social awareness increases (Qs.27 and 38). This confirms the contention that as training length increases so respondents are more likely to hold a third phase view of geography education.

Real differences between training group responses to items (Qs.29, 42, 45) confirms the emergence of a greater third phase perception of the nature of the subject when related to the longer period of training. Thus as length of training increases more concern is felt for the teaching of concepts and skills useful to society (Q.29), the stronger the agreement with the need for syllabus changes in order that geography should remain relevant to the needs of pupils and society (Q.42) and the greater the enjoyment derived from teaching the subject (Q.45).

7.1.2 Attitudes towards training and teaching style (Qs.51 - 76).

Length of training has little effect upon the respondents' attitudes towards training course components. Overall group responses indicate that practical issues involved with the teaching of the subject are more important than those involving theoretical or philosophical knowledge. However, as length of training increases, respondents rate the importance of including talks by practising teachers (Q.55) and map skills (Q.58) in geography methodology courses more highly.

Overall, length of training is found to have little impact upon the respondents' choice of teaching style for in 83% of cases it is necessary to accept Ho. The only significant differences between groups are found in response to questions 67 and 73 (Table 7.1). An analysis of the histograms for these items indicates that as training length increases books and journals (Q.67) become more important, and instruction on how to teach given by subject heads less important (Q.73) in determining teaching style choice. This suggests that the more training teachers have undergone the more confident they are in determining their own choice of teaching style and the more likely they are to act independently and/or go to primary sources.

7.1.3 Actual and ideal methodology use (Qs.77 - 118).

Regarding the use of teaching methodologies, the null hypothesis may be rejected for 89% of items in this section. Location shifts in response histograms indicate that as length of training increases, teacher use of case studies (Q.79), fieldwork (Q.81), sample tables (Q.84), overhead projectors (Q.85) and slides (Q.88) increases. Of interest are the marked differences in response between groups as far as the use of pupil-centred techniques (case studies, fieldwork and sample tables) are concerned. Mean response locations show that as length of training increases respondents use pupil-centred techniques more frequently. Although this would suggest an inclination towards third phase practice as training length increases, it must be remembered that even in the group with 5 or more years of training, the overall use of pupil-centred techniques is still infrequent and well below the use of methodologies indicating a teacher-centred approach to classroom practice.

Responses of teachers grouped according to length of training show that significant differences exist between them with regard to their ideals concerning the use of case studies (Q.100), fieldwork (Q.102), sample tables (Q.105) and computers (Q.116). This finding supports the trend identified previously, i.e., pupil-centred techniques are not only used more frequently, but are also rated more favourably as length of training increases.

7.1.4 Summary : Training length response differences.

The following generalizations are drawn from the results discussed above. When teachers are grouped according to their length of training, real differences are found between:-

(i) *where they teach, the standard level at which they teach and the language medium they use in the classroom. The more highly qualified respondents tend to be male and teach through*

the medium of English. This raises the question of why these differences exist, the answers to which are not clear and would need to be followed up in a future study. Similarily, it is not clear why English-speaking males are more highly qualified than their Afrikaans-speaking colleagues.

(ii) their perception of the importance of skills and syllabus change as well as the enjoyment derived from teaching. The longer the training the more third phase are teachers' viewpoints.

(iii) their attitudes regarding the importance of Christian National Education and towards developing social awareness in geography education. As length of training increases Christian National concerns decrease and the wish to develop social awareness in pupils increases.

(iv) respondents' actual and idealised use of pupil-centred teaching methodologies. Responses indicate a greater use and preferred use of third phase methodologies as length of training increases.

The findings above support the assumption that the longer the period of training, the greater the likelihood that teachers will exhibit attitudes consistent with a third phase view of geography education. It is noticeable, however, that feelings towards statements and practices reflecting the use of a third phase approach in geography education are not particularly strong, even in the group of teachers with the longest training experience. This supports the finding in Chapter 6 regarding the dominance of second phase attitudes and practice in the Cape Education Department.

Of particular interest is the fact that there are no significant differences in attitude towards teaching practice if teacher responses are grouped according to their length of training. This finding is important in that it supports socialization theory which suggests that classroom experience is probably the major determinant of teaching practice choice. It also clearly indicates that training has had little impact upon changing teachers' attitudes towards the use of non-directive, pupil-centred techniques (section 3.1).

7.2 RESPONDENTS GROUPED ACCORDING TO TRAINING PERIOD.

Paralleling academic changes associated with the move from a regional to a quantitative approach in tertiary institutions in the early 1970's, were those occurring in the professional sphere. The emergence of third phase geography education in the United Kingdom and the impact of content changes in the secondary school syllabuses in South Africa combined to alter the nature of pre-service geography methodology courses. Consequently teachers who trained prior to 1970 and those who trained after this date received a different type of preparation for geography teaching. It is hypothesised that those who trained before 1970 will, therefore, exhibit differing attitudes and practice in geography education from those who trained more recently. (The fact that they also have more experience as teachers and probably hold higher posts in the school hierarchy will be taken into account and considered later.)

Respondents were therefore divided into two groups corresponding to their training period (pre- and post- 1970) and the Mann-Whitney test was applied to the data. (Table 7.2). For convenience the pre-1970 group (n = 70) will be termed 'pre-group' and the post-1970 group (n = 100), 'post-group'.

Overall, real differences occur between groups trained before and after 1970 in over 40% of responses to items

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,24	31	*0,05*	61	*0,00*	91	*0,01*
2	0,76	32	0,60	62	*0,02*	92	*0,03*
3	*0,00*	33	0,59	63	0,20	93	0,56
4	----	34	0,10	64	0,62	94	0,13
5	*0,00*	35	0,85	65	0,58	95	0,48
6	*0,02*	36	0,65	66	*0,00*	96	0,30
7	0,64	37	0,80	67	0,80	97	0,25
8	0,96	38	0,67	68	0,63	98	0,31
9	*0,00*	39	0,56	69	0,15	99	0,11
10	0,95	40	0,85	70	*0,01*	100	*0,00*
11	0,27	41	*0,00*	71	0,46	101	0,98
12	0,36	42	0,16	72	*0,00*	102	*0,09*
13	*0,04*	43	*0,00*	73	0,48	103	*0,08*
14	*0,04*	44	0,65	74	0,20	104	0,81
15	0,77	45	0,65	75	*0,04*	105	*0,08*
16	*0,07*	46	0,79	76	0,64	106	0,91
17	0,67	47	0,52	77	0,21	107	0,97
18	0,21	48	0,28	78	0,90	108	*0,03*
19	*0,07*	49	0,59	79	0,15	109	*0,06*
20	*0,01*	50	*0,01*	80	*0,03*	110	0,55
21	0,91	51	0,51	81	*0,02*	111	0,13
22	0,26	52	0,72	82	0,96	112	0,12
23	0,63	53	0,11	83	0,66	113	0,56
24	*0,09*	54	0,14	84	0,64	114	0,31
25	0,51	55	0,85	85	0,45	115	0,37
26	0,10	56	*0,00*	86	0,86	116	*0,04*
27	0,81	57	0,14	87	0,97	117	0,42
28	0,40	58	0,41	88	0,13	118	0,84
29	0,18	59	0,21	89	0,85		
30	0,47	60	*0,00*	90	0.98		

Trained: pre-1970 n = 70
post-1970 n = 100

TABLE 7.2. TRAINING PERIOD: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (MANN - WHITNEY TEST).

concerning personal data and reasons for teaching. Furthermore, the null hypothesis may be rejected in one third of each set of items concerning training course components, influences on teaching style and idealised preferences for the use of methodologies.

As expected, significant differences between pre- and post-group respondents are found in relation to the training institution attended (Q.3), school post held (Q.5) and standards taught (Q.6). From the analysis of response histograms for these items it is noted that :-

(i) pre-group respondents are more likely to have trained at a college of education than post-group colleagues.

(ii) pre-group respondents occupy more senior positions in the school system than post-group respondents.

(iii) pre-group respondents are largely involved in teaching at the standard 10 level or below whereas post-group respondents usually teach up to the standard 8 level.

The first finding reflects the pattern common before the 1970's when those trained in colleges often taught at the secondary school level. The two latter findings support the view that classroom experience and seniority are important criteria determining whether an individual teaches at the standard 9 or 10 level. Although their more recent academic and professional training would suggest that post-group respondents would be well suited to teach standard 9 and 10 syllabus content, the majority do not, in fact, teach at these levels.

7.2.1 Attitudes towards geography education (Qs.9 - 50).

Indications of a significant difference in attitude towards job satisfaction are found between group responses to item

24. Response histograms show that post-group respondents express greater dissatisfaction with their job than pre-group colleagues, who are also less likely to think they made a mistake in becoming a teacher. This probably reflects the fact that post-group respondents are less settled in their careers as they are younger. Pre-group respondents, not unexpectedly, are more committed to teaching given their level of seniority and age. Furthermore, real differences are found in responses to items directly related to their reasons for teaching :-

(i) post-group respondents rate personal achievement and child/self issues as more important reasons for teaching than do their pre-group colleagues (Qs.9, 14 and 19).

(ii) post-group respondents generally rate the need for a changing situation (Q.13), companionship of the staffroom (Q.16) and that the job can be fitted around other commitments (Q.20) as more important than do pre-group respondents.

This would suggest that post-group respondents are more achievement orientated in their reasons for teaching than their pre-group colleagues, despite the fact that they are more likely to question the correctness of their career choice.

Real differences are found between group attitudes towards geography education and practice (Table 7.2). Post-group respondents are, on average, more positive than pre-group respondents about investigating the spatial consequences of political policy (Q.31), increasing the amount of graphicacy (Q.41), the separation of school and university geography content (Q.43) and the benefits of using pupil-centred methods in geography education (Q.50). These results imply that post-group students are more favourably disposed towards third phase geography education and practice than pre-group respondents.

7.2.2 Attitudes towards training and teaching style (Qs.51 - 76).

Given the differences between the two groups in their attitudes towards geography education and practice, it is not surprising to find that significant differences also emerged in their perceptions of the importance of including school geography tasks (Q.56), the teaching of gifted pupils and slow learners (Qs.60 and 61) and teaching in disadvantaged schools (Q.62) in geography methodology courses. Group response histograms show that in all the above cases post-group respondents perceive the inclusion of the above items to be more important than do their pre-group colleagues. This finding once again emphasises that post-group respondents tend to be more pupil-centred in their approach to geography education and more concerned with the practicalities of teaching than those individuals in the pre-group. Perhaps, due to their longer experience in the classroom, pre-group respondents have already come to terms with these issues.

Significant differences between the groups also emerge in the perception of factors which are important in determining choice of teaching style. An analysis of group response histograms for items indicating significant differences reveals that :-

(i) post-group respondents rate the influence of teacher training (Q.66) and the classroom behaviour of pupils (Q.70) as more important in determining their choice of teaching style than do their pre-group colleagues.

(ii) pre-group respondents generally rate the influence of in-service training/geography teacher associations and examinations (Qs. 72 and 75) as more important determinates in their choice of teaching style than do post-group respondents.

These findings are to be expected when one considers the training experience of the respondents. Recently trained teachers are generally involved in an attempt to apply the practice suggested during their teacher-training course, are less experienced and therefore more sensitive to pupil reaction than are their pre-group colleagues. In contrast, in-service education conducted by education authorities and geographical associations has played an important role in upgrading the pre-group teacher's knowledge of syllabus content during the 1970's. It is also not surprising to find that these teachers are more influenced by examinations than their post-group colleagues as they are generally more likely to be preparing standard 10 pupils for matriculation examinations.

7.2.3 Actual and ideal methodology use (Qs.77 - 118).

Differences between groups in terms of their use of teaching methodologies mean that Ho may be rejected in 19% of cases in this section (Table 7.2). There are significant differences between the groups in their use of mapwork (Q.80), fieldwork (Q.81), talk and chalk (Q.91) and sound-tapes (Q.92) with the pre-group respondents using these items more frequently than do their post-group colleagues. Initially it seems contradictory that pre-group respondents should use both fieldwork and talk and chalk frequently. These techniques may be regarded as indicating opposing approaches towards geography education. As pre-group respondents have been shown to be more teacher-centred in their approach to geography education their relative use of talk and chalk is expected but not their use of mapwork and fieldwork. It should be remembered, however, that the matriculation examination includes a practical mapwork paper and that the theory paper may sometimes test fieldwork experiences. The finding that pre-group respondents tend to be more influenced by examinations in their choice of teaching style and are more likely to teach at the standard 10 level than post-group respondents, would suggest that their use of fieldwork may not indicate an increased

commitment to pupil-centred teaching but rather a response to examination demands.

More commonly, the responses of pre- and post-group respondents differ significantly from each other when their ideal use of teaching methodologies is considered (Ho is rejected in 33% of cases). Possibly significant differences between the groups are found in what they regard as the ideal use of fieldwork (Q.102), worksheets as reinforcement of learnt material (Q.103), sample tables (Q.105) and slides (Q.109). Significant differences occur in the preference for case studies (Q.100), films (Q.108) and computers (Q.116). Invariably post-group respondents rate the use of all the above items more highly than their pre-group colleagues.

These findings support the contention that post-group respondents are more pupil-centred in their ideals regarding geography practice than their pre-group colleagues. Furthermore, the fact that post-group respondents indicate a greater preference for the idealised use of fieldwork than do pre-group respondents supports the previous contention that their use of this technique is not necessarily an indication of a preference for the use of pupil-centred methods, but results rather from the need to satisfy examination requirements.

7.2.4 Summary : Respondents grouped according to training period.

From the analysis of those items in which the null hypothesis could be rejected the following conclusions are drawn :-

(i) *pre-group respondents are more likely to occupy senior posts and teach geography at the standard 9 and 10 level than their post-group colleagues.*

(ii) pre-group respondents rate the influence of in-service activities and examinations as more important, and teacher training and classroom behaviour of pupils as less important, in determining their teaching style choice than post-group respondents.

(iii) post-group respondents are more subject orientated and pupil-centred in their reasons for teaching than are pre-group respondents.

(iv) post-group respondents are more ambitious than pre-group teachers. They are, however, more dissatisfied with their career choice and less committed to teaching. This is probably due to frustrations arising from promotion difficulties and their relative lack of status when compared with pre-group colleagues.

(v) post-group respondents indicate a greater concern with training course components which are pupil-centred and practical in nature than pre-group colleagues.

(vi) pre- and post-group attitudes towards geography education and practice are similar, although there is an indication that post-group respondents hold attitudes more in line with the aims of third phase geography education than do pre-group respondents.

(vii) pre- and post-group respondents use teaching methodologies which reflect an overall teacher-centred approach. However, pre-group respondents are less third phase in their ideals than their post-group colleagues.

To summarise, pre-group respondents (who generally occupy relatively senior school positions), are more conservative

in their attitudes towards the nature of geography education than are their post-group colleagues.

7.3 RESPONDENTS GROUPED ACCORDING TO TEACHING LEVEL.

In the Cape Education Department both length of training and more particularly, the length of service (closely related to training period), are important variables affecting the level at which respondents will teach. In order to investigate and establish the type of differences, if indeed any do exist, responses to questionnaire items were grouped according to the highest standard taught. Those who teach at the standard 8 level and below are termed 'junior teachers' (n = 76) and those teaching up to the standard 9 and 10 level, 'senior teachers' (n = 94). The Mann-Whitney test was applied to establish whether differences between the two groups exist (Table 7.3).

Overall, the most significant differences appear in sections dealing with personal details (Ho is rejected in 86% of cases), reasons for teaching (Ho is rejected in 33% of cases), and influences on teaching style (Ho is rejected in 58% of cases). As expected, the results reflect the findings of the two aspects previously considered, namely that :-

(i) senior teachers are more highly qualified than junior teachers.

(ii) junior teachers are more likely to have trained at a college and senior teachers at a university.

(iii) junior teachers underwent training after 1970 whereas senior teachers show an equal distribution of those who had trained before and after 1970.

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,42	31	*0,03*	61	0,81	91	0,16
2	*0,00*	32	0,11	62	0,52	92	0,40
3	*0,02*	33	0,46	63	0,14	93	0,66
4	*0,01*	34	0,50	64	0,10	94	*0,00*
5	*0,00*	35	*0,00*	65	*0,06*	95	0,79
6	----	36	*0,00*	66	*0,00*	96	0,33
7	*0,00*	37	0,39	67	0,44	97	0,80
8	*0,00*	38	0,00	68	0,42	98	0,72
9	0,11	39	0,84	69	0,94	99	0,32
10	0,61	40	0,59	70	*0,01*	100	0,96
11	0,10	41	0,32	71	0,43	101	0,28
12	0,89	42	*0,01*	72	*0,02*	102	*0,05*
13	0,57	43	0,99	73	*0,07*	103	0,82
14	*0,02*	44	0,91	74	*0,04*	104	0,88
15	*0,07*	45	*0,00*	75	0,26	105	0,80
16	*0,00*	46	0,45	76	*0,06*	106	0,87
17	0,39	47	0,49	77	0,15	107	0,32
18	0,65	48	0,51	78	0,39	108	0,56
19	*0,04*	49	0,25	79	*0,01*	109	0,45
20	*0,01*	50	*0,04*	80	0,14	110	0,92
21	0,83	51	0,94	81	*0,00*	111	0,98
22	0,64	52	0,59	82	0,59	112	0,72
23	0,97	53	0,10	83	0,84	113	0,53
24	0,61	54	0,52	84	*0,06*	114	0,28
25	*0,04*	55	*0,07*	85	*0,03*	115	*0,08*
26	0,82	56	*0,01*	86	0,18	116	0,90
27	*0,00*	57	0,84	87	0,37	117	*0,08*
28	0,16	58	*0,00*	88	*0,02*	118	0,87
29	0,77	59	0,13	89	0,83		
30	0,70	60	0,97	90	0.63		

Teaching: Standard $\leq$ 8 n = 76
Standard $\leq$ 10 n = 94

TABLE 7.3. TEACHING LEVEL: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (MANN - WHITNEY TEST).

(iv) junior teachers occupy lower promotion posts than those teaching senior standards.

In addition, it appears that junior teachers mainly use Afrikaans as their teaching medium while those teaching senior standards predominantly use English. Reasons for this need to be more fully investigated. Similarly, the finding that those teaching geography in junior standards are, on average, located in small towns and those teaching senior standards, in metropolitan regions, needs to be followed up.

7.3.1 Attitudes towards geography education (Qs.9 - 50).

Although junior and senior teachers are generally satisfied with their career choice there is a significant difference between the two groups regarding attitudes towards the choice of geography as a teaching subject (Q.25). Junior teachers, as a group, are less satisfied with being geography teachers than their senior colleagues. Although the reasons are not clear it seems probable that the answer lies in their reasons for teaching. In this regard real differences were found between junior and senior groups responses to items 14, 15, 16, 19 and 20 (Ho is rejected in 33% of cases). Most of the items reflecting response differences concerned conditions of service (Qs.14, 15, 16 and 20). Analysis of response histograms for these items shows that junior teachers rate the possibilities of advancement, the need to have a steady income, companionship of the staffroom and the fact that teaching can be fitted around other commitments, more highly than do their senior colleagues. This indicates the greater concern of junior teachers with service-related issues. Senior teachers, who have relatively more status and occupy higher positions in the school, generally rate pupil-centred concerns (Q.19) more highly than do their junior colleagues as reasons for teaching. These findings indicate that junior teachers are more aware of issues affecting personal status and job conditions than senior teachers, who in turn, are motivated more by subject and pupil-centred concerns. Given their

relative need for companionship and desire to advance, it follows that junior teachers may be highly susceptible to the influence of senior colleagues who control job conditions within a school.

As far as attitudes towards geography education and practice are concerned, Ho is rejected in 32% of cases (Qs.27, 31, 35, 36, 38, 42, 45 and 50). Significant differences exist between group responses to the amount of regional geography content which should be presented at school level (Q.35) and towards the need to develop problem-solving skills (Q.36). Response histograms for these items show that junior teachers are more positive towards increasing regional geography content in the syllabus and less positive about developing problem-solving skills than their senior colleagues. In contrast, senior group respondents hold attitudes towards content and skills more in line with the ideals of third phase geography education.

Significant differences are also found between junior and senior teachers' responses towards the teaching of attitudes in geography education. Group differences in response to the development of Christian National attitudes (Q.27), political ideals and their influence upon spatial patterns (Q.31) as well as the development of pupil social awareness (Q.38), make it possible to reject Ho at the 95% level. Modal location differences (as illustrated by response histograms), indicate that junior teachers as a group feel more strongly that geography should develop a love for country and culture and less strongly that the subject should develop critical appreciation of the spatial influences of political ideals and social awareness. This finding reinforces the contention that senior teachers, as a group, hold attitudes more compatible with third phase aims and objectives than do junior teachers.

Two items in which the null hypothesis may be rejected are concerned with subject issues (Qs.42 and 45). Senior teachers feel more strongly than junior teachers that syllabus change is desirable in order to ensure that the

subject remains relevant to the needs of pupils and society (Q.42). They also feel that geography is the most exciting subject to teach in the school curriculum (Q.45). These findings once again illustrate the greater third phase concerns of senior teachers.

A significant difference between junior and senior teacher attitudes towards teaching practice is found in response to item 50. Junior teachers perceive the effectiveness of pupil-centred methods more positively than do their senior colleagues. This finding is problematic as it could be interpreted as refuting the previous findings *viz.*, that senior teachers are more third phase in their attitudes than their junior colleagues. However, if one remembers that many senior teachers are concerned with preparing pupils for an external examination which is largely factual in its requirements (section 1.3.4), it would be surprising if they did not feel less than convinced about the merits of using pupil-centred methodologies. In the light of other evidence (particularly with regard to senior and junior teachers' use of teaching methodologies) it would be incorrect to use this finding to assume that junior teachers as a group are more pupil-centred in their approach than senior colleagues.

7.3.2 Attitudes towards training and teaching style (Qs.51 - 76).

There is no difference between the groups in their perception of the value of pre-service training. Generally respondents are positive towards their choice of teaching as a career and geography as their teaching subject. However, in terms of group responses to items concerning the importance of training course components senior teachers predominately rate talks by practising teachers (Q.55) and skills such as mapwork (Q.58) more highly than junior teachers. Conversely, junior teachers as a group rate the need for instruction on school tasks (Q.56) more highly than do their senior colleagues. Although significant differences do exist in the above instances, they refer to

items which both groups rank as being of relatively little importance in geography methodology courses (section 6.3).

Junior and senior group responses to items concerning influences on teaching style show real differences in more than half the cases :-

(i) junior teachers rate the influence of their teacher training course (Q.66), guides from the education department (Q.74), teachers admired when a pupil (Q.65), instruction given by subject head (Q.73) and desire to obtain promotion (Q.76), more highly than do senior teachers. This further supports the contention that junior teachers are generally more influenced in their teaching style choice by role models and formal training elements than are senior teachers.

(ii) senior teachers are generally more influenced by the classroom behaviour of pupils (Q.70), and in-service courses/ geography teacher associations (Q.72) than are junior teachers.

It is clear that both junior and senior teachers perceive a difference in the importance of factors influencing their choice of teaching style. This finding lends weight to, and helps explain the contention, that geography education differs between junior and senior secondary level. It also suggests that junior teachers are more susceptible to the socialization influences which emanate from those in more senior positions in the career hierarchy.

7.3.3 Actual and ideal methodology use (Qs.77 - 118).

Significant differences emerge between junior and senior teachers' use of teaching methodologies. This can be deduced from their responses to 29% of items (Qs.79, 81, 84, 85, 88 and 94). Location shifts in response histograms indicate that on average senior teachers tend to use fieldwork

(Q.81), sample tables (Q.84), overhead projectors (Q.85), slides (Q.88) and discussion and reading of duplicated notes (Q.94) more frequently than do junior teachers. On the other hand, junior teachers generally use case studies (Q.79) more frequently than do their senior colleagues. The more frequent use by senior teachers' of fieldwork and sample tables does not necessarily indicate a greater support for pupil-centred teaching and should be viewed in the light of the interpretation given to between-group differences for question item 50, discussed previously (7.3.1). This contention is supported by the fact that group attitudes towards the value and use of pupil-centred methods show no significant difference (Q.46).

7.3.4 Summary : Teaching level response differences.

From the results above regarding differences between junior and senior teacher perceptions of geography education and practice the following points are highlighted. On average :-

(i) *junior respondents are less qualified and occupy lower promotion posts than their senior colleagues. They are also more likely to be Afrikaans-speaking and teach in small town schools. Senior teachers are generally English-speaking and teach in metropolitan schools.*

(ii) *junior teachers are more job- and less subject- and pupil-centred in their reasons for teaching than are their senior colleagues.*

(iii) *senior teachers are more positive towards the need to develop pupil attitudes towards political and social issues, problem-solving skills and the need for syllabus change than are junior teachers. Junior teachers, on the other hand, are more positive towards the development of Christian National attitudes.*

(iv) the teaching style of junior teachers is influenced largely by formal training elements and role models whereas senior teachers are more influenced by pupil behaviour, in-service courses and geography teacher associations.

(v) there are few differences to be found in senior and junior teachers actual and ideal use of teaching methodologies. Overall both groups use teacher-centred aids and techniques more frequently than those which are pupil-centred in nature.

It follows therefore that geography education in junior and senior standards will differ. Senior teacher attitudes suggest that as a group they are more disposed towards a third phase approach in geography education than their junior colleagues although both groups use teaching practice which is predominately teacher-centred in nature.

7.4 RESPONDENTS GROUPED ACCORDING TO SCHOOL LOCATION.

It is often mentioned by inspectors/subject advisors and geography teachers that geographers working in small town schools exhibit different attitudes and practice from those located in metropolitan regions. This idea is supported by extrapolation from the finding in the previous section (7.3.4). If this is the case the implication is that geography education in metropolitan regions is more third phase in its nature than that found in the more rural areas. In order to test this assumption teachers were grouped into three categories according to whether their school was located in a small town of less than 20,000 people (n = 62), a large town of between 20,000 and 100,000 people (n = 44) or a metropolitan region of more than 100,000 people (n = 64).

Results of the Kruskal-Wallis test indicate that significant differences in personal characteristics of the groups emerge from teacher responses to items 2, 3, 4, 5, 6, and 7 (Table 7.4). Analysis of group response histograms for these items indicate that in general :-

(i) the larger the town size the more qualified the respondents, the more likely they are to be university trained, the higher the standards they will teach and the more likely they are to use English as a medium of instruction.

(ii) respondents from large towns are more likely to have undergone training after 1970 and to occupy lower school posts than those teaching in either small town or metropolitan schools.

These personal differences are such that it would indeed be surprising if the nature of geography education in small town and metropolitan schools was similar.

7.4.1 Attitudes towards geography education (Qs.9 - 50).

Teacher perceptions regarding reasons for teaching are not influenced to any large extent by school location. In fact, the only really significant difference between groups appears in perceptions of the importance of job security as a reason for teaching (Q.11). As the reasons for selecting teaching as a career are established some time before teachers are posted to a school, location would not be expected to alter attitudes reflecting reasons for career choice.

Attitudes concerning geography education and practice do reflect differences between groups in 7 out of 25 items in this section (Ho is rejected in 28% of cases). Response histograms reveal that the smaller the town in which a school is located, the more positive the respondents tend to be regarding an increase in regional geography content in

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,33	31	0,52	61	0,30	91	0,74
2	*0,04*	32	0,69	62	0,12	92	*0,73*
3	*0,00*	33	0,16	63	0,30	93	*0,01*
4	*0,04*	34	*0,03*	64	*0,00*	94	*0,09*
5	*0,04*	35	*0,00*	65	0,43	95	0,75
6	*0,00*	36	0,32	66	*0,00*	96	0,28
7	*0,00*	37	*0,07*	67	*0,03*	97	0,83
8	----	38	0,38	68	0,38	98	0,15
9	0,15	39	0,81	69	0,87	99	0,42
10	0,84	40	0,73	70	*0,09*	100	*0,03*
11	*0,00*	41	0,11	71	0,12	101	0,18
12	0,39	42	0,33	72	*0,09*	102	0,35
13	0,31	43	0,45	73	*0,06*	103	0,90
14	0,35	44	0,30	74	*0,00*	104	0,87
15	0,12	45	0,38	75	*0,06*	105	*0,00*
16	0,27	46	*0,09*	76	0,49	106	0,43
17	0,31	47	0,30	77	0,25	107	*0,04*
18	0,44	48	0,89	78	0,57	108	0,33
19	*0,08*	49	0,20	79	0,46	109	0,41
20	0,20	50	*0,04*	80	*0,04*	110	0,36
21	0,87	51	0,30	81	*0,06*	111	0,18
22	0,76	52	*0,05*	82	0,67	112	*0,04*
23	0,30	53	0,24	83	0,51	113	0,84
24	0,15	54	0,64	84	*0,02*	114	0,22
25	0,63	55	0,55	85	0,47	115	0,99
26	0,31	56	*0,08*	86	*0,02*	116	0,31
27	*0,00*	57	0,27	87	0,11	117	*0,06*
28	*0,03*	58	0,23	88	0,24	118	0,23
29	0,38	59	0,89	89	0,76		
30	0,48	60	0,22	90	0,85		

School in town of: < 20 000 people n = 62
20 000-100 000 people n = 44
> 100 000 people n = 64

TABLE 7.4. SCHOOL LOCATION: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (KRUSKAL - WALLIS TEST).

the school syllabus (Q.35) and the teaching of generalities rather than particularities about regions (Q.37). Respondents from large town schools appear to be more positive towards an increase in the amount of spatial theory in the school syllabus (Q.34) than those from both small town and metropolitan schools. This preference probably reflects the fact that respondents from large town schools have generally trained more recently and thus have are experienced in the field of modern spatial theory.

Significant differences emerge between group responses to items concerning the teaching of attitudes in geography education (Qs.27 and 28). In this regard histograms clearly indicate that those teaching in small town schools are the most positive towards the teaching of Christian National attitudes and those in metropolitan schools the least positive. Furthermore, respondents from both small and large town schools generally feel that it is idealistic to assume that fieldwork, geographical games and role play should constitute a significant part of school geography teaching strategy (Q.46). Those from metropolitan schools are mostly undecided in this regard. Respondents teaching in large town schools, however, are more positive about the benefits of pupil-centred teaching than their colleagues in either small town or metropolitan schools (Q.50).

It appears that respondents from small town schools are less favourably disposed towards third phase geography attitudes and practice than those from schools in large towns and metropolitan centres. Significant differences between the attitudes of each group towards the place of regional geography and spatial theory in school syllabuses (Qs.35 and 34), the teaching of love for country, culture and Creator in geography lessons (Qs.27 and 28) and the use and benefits of pupil-centred techniques (Qs.46 and 50), all support the above view.

7.4.2 Attitudes towards training and teaching style (Qs.51 - 76).

A significant difference between the three groups is found in responses towards the value of geography methodology courses (Q.64). Response histograms for this item indicate that those respondents in large town schools are the most satisfied with their geography teacher training and those in metropolitan schools, the least. Knowing that the large town respondents have undergone training most recently (section 7.4.1) this finding would suggest that post-1970 teacher-training programmes have been more successful in meeting the needs of teachers than was previously the case.

Few real differences emerge in attitudes towards training components (Ho is rejected in 17% of cases). The differences in perceived importance of school geography tasks (Q.56) and teaching methodologies (Q.52) in geography methodology courses are possibly significant and it appears that :-

(i) large town respondents rate geography tasks (such as use of journals, registers and day books) as more important in a methodology programme than do teachers who are located in small town and metropolitan regions. This is presumably due to the fact that as a group, large town respondents are generally less experienced teachers than those in small town and metropolitan schools and the learning of administrative tasks is more pertinent at this stage of their careers.

(ii) as town size increases so respondent perceptions of the importance of geography methods in training courses weaken. Small town teachers are generally more satisfied with the methods they use in school than teachers in large towns, who in turn, are less critical than metropolitan school

respondents. As small town respondents have been shown to be the least third phase in their attitudes towards geography education, the relative lack of concern regarding the importance of geography methods in training programmes is regrettable.

The greatest number of real differences between groups analysed according to school location, occur in relation to influences upon teaching style (Ho is rejected in 58% of cases). Significant differences are found between group responses to the importance of teacher training courses (Q.66), books and journals (Q.67) and guides from the education department (Q.74). Possibly significant differences exist between group responses to the influence of pupil behaviour (Q.70), in-service training/geography teacher associations (Q.72), instruction from subject heads (Q.73) and examinations (Q.75). Analysis of the above items leads to the following conclusions :-

(i) respondents from small town schools rate the influence of education department teacher guides (Q.74) more highly than do respondents from large town and from metropolitan schools.

(ii) respondents from large town schools rate teacher training courses (Q.66), books and journals (Q.67), in-service courses/ geography teacher associations (Q.72), instruction from subject head (Q.73) and examinations (Q.75) as more influential in determining their teaching style than do those working in small town and metropolitan schools.

(iii) respondents from metropolitan schools are more influenced by the classroom behaviour of pupils and their response to different

teaching styles than are those from small or large town schools (Q.70).

The findings above highlight interesting differences between respondents from schools located in towns of differing size. Generally it can be said that small town teachers are more influenced by departmental directives than those teaching in larger towns; teachers from large towns are more influenced by training experiences than those in small town or metropolitan schools; and teachers from metropolitan schools are more sensitive to pupil behaviour in response to their teaching styles than are those from schools in smaller centres. This suggests that respondents from large town schools are the most likely to adopt a teaching style which is supportive of the use of third phase teaching practice.

7.4.3 Actual and ideal methodology use (Qs.77 - 118).

Differences in group responses analysed according to town size reveal that Ho can be rejected in 29% of cases concerning the use of teaching methodologies. A comparison of response histograms for the three groups shows that teachers located in small town schools use textbooks (Q.86) more frequently and sample tables (Q.84), video films (Q.93) and discussion and reading of duplicated notes (Q.94) less frequently than their colleagues in larger centres. On the other hand, respondents in large town schools use mapwork (Q.80), sample tables (Q.84), video films (Q.93) and the discussion and reading of duplicated notes (Q.94) more frequently, and textbooks (Q.86) less frequently, than teachers in small town or metropolitan schools. Fieldwork, as a method of teaching (Q.81), is used most frequently by respondents located in large towns or metropolitan centres.

Clearly there is a general increase in the use of third phase practice as town size increases. Differences in methodology use are most marked between respondents from small and large town schools. This is not surprising when considering the attitudes of small town respondents towards geography education and practice (section 7.4.1).

Methodology use in large town and metropolitan schools is generally very similar. Overall then, respondents from small town schools are the furthest removed from the use of third phase teaching practice in Cape Education Department secondary schools.

In the section concerned with respondents' ideal use of teaching methodologies, Ho is rejected in 24% of cases (Qs.100, 105, 107, 112 and 117). Shifts in group response locations indicate that as town size increases, there is a progressive decrease in the perception of the frequency with which talk and chalk (Q.112) should be used. Furthermore, respondents from large town schools prefer to use sample tables (Q.105), case studies (Q.100) and newspaper articles (Q.117) more frequently than do those from small town or metropolitan schools. Respondents from small town schools prefer, on average, to use textbooks (Q.107) more frequently than do their colleagues from larger centres.

These results again support the previous conclusion, i.e., that small town respondents are as a group more teacher-centred in their attitudes and practice than those from large town or metropolitan schools.

7.4.4 Summary : Responses grouped according to school location.

The following general comments can be made regarding the attitudes and practice of geography teachers located in towns of differing size :-

(i) *respondents from small town schools are more positive towards the place of regional geography in secondary schools, the role that geography education should play in developing Christian National attitudes, and the use of teacher-centred practice than are their colleagues from larger centres.*

(ii) respondents from small town schools use and idealised use of teaching methodologies is more teacher-centred in nature than that of respondents from larger centres. In particular, major differences in teaching practice exist between respondents in small and large town schools.

(iii) respondents from large town schools have trained most recently, occupy lower school posts and are the most positive towards increasing the amount of spatial theory in the syllabus and the benefits of pupil-centred teaching practice. They are the most positive group in terms of their regard for the value of their geography methodology course. Respondents teaching in metropolitan schools are the least satisfied. The teaching style of those in large town schools is also more influenced by formal and informal training experiences than that practised by colleagues in small town and metropolitan schools.

(iv) Respondents in metropolitan schools are more influenced in their choice of teaching style by the behaviour of pupils than those working in smaller centres. This suggests that respondents teaching in metropolitan schools experience more discipline problems as a result of the type of pupil and the lower status accorded to teachers in these areas, in comparison to the situation existing in large and small town schools.

(v) significantly more respondents with high qualifications teach in the larger centres.

Geography teachers in small town schools, therefore, generally exhibit differing attitudes and practice from

those working in schools located in larger centres. The nature of the differences imply that geography education experienced in small town schools is less third phase in its nature than in larger centres.

7.5 RESPONDENTS GROUPED ACCORDING TO LANGUAGE MEDIUM.

Language medium was included as a grouping category in order to test the common assertion that English- and Afrikaans-speakers exhibit different attitudes towards, and practice in, geography education. Differences between English- and Afrikaans-speaking teacher attitudes and practice are generated and perpetuated by government education policy, in which the need for mother tongue instruction is used to justify the separation of English- and Afrikaans-speaking pupils into different schools (in a few instances, where specific circumstances warrant it, schools are dual-medium). It is possible therefore, that geography taught through the medium of English would differ in its nature from that taught in Afrikaans medium schools even though all pupils use the same syllabuses and write the same matriculation examination.

In order to investigate the above contention and to identify the nature of any differences in attitude and practice, teacher responses were placed into two groups according to their language medium and the Mann-Whitney test applied to the data (English-speakers n = 74; Afrikaans-speakers n = 96).

From an overall perspective the initial finding is that Ho is rejected in 44% of cases in the questionnaire (Table 7.5). This is the highest overall rejection rate for any of the seven groupings in this study. As such, this finding supports the view that language medium is a good predictor of the likely nature of geography education existing within a school.

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	*0,02*	31	0,11	61	0,58	91	0,32
2	*0,00*	32	0,89	62	0,98	92	0,72
3	*0,00*	33	*0,00*	63	*0,04*	93	0,35
4	0,64	34	0,37	64	0,19	94	0,14
5	0,38	35	*0,03*	65	*0,05*	95	0,18
6	*0,00*	36	0,10	66	*0,03*	96	0,62
7	----	37	0,29	67	0,44	97	0,13
8	*0,00*	38	*0,00*	68	0,48	98	*0,08*
9	0,16	39	0,61	69	0,57	99	*0,06*
10	0,48	40	0,78	70	*0,07*	100	0,78
11	0,19	41	*0,04*	71	*0,01*	101	*0,01*
12	0,52	42	0,33	72	0,64	102	*0,01*
13	0,37	43	*0,06*	73	*0,07*	103	*0,09*
14	0,22	44	0,80	74	*0,01*	104	0,50
15	*0,09*	45	0,33	75	0,13	105	0,97
16	*0,00*	46	*0,01*	76	*0,00*	106	*0,00*
17	*0,09*	47	*0,07*	77	*0,03*	107	*0,00*
18	0,89	48	*0,01*	78	*0,05*	108	0,88
19	0,17	49	0,87	79	0,19	109	0,59
20	0,10	50	*0,00*	80	*0,00*	110	*0,01*
21	*0,00*	51	0,34	81	*0,00*	111	0,23
22	*0,05*	52	0,29	82	*0,05*	112	*0,07*
23	0,79	53	0,15	83	0,81	113	0,78
24	*0,05*	54	0,55	84	*0,03*	114	0,75
25	0,35	55	*0,00*	85	0,60	115	0,55
26	*0,00*	56	*0,02*	86	*0,02*	116	0,35
27	*0,00*	57	0,73	87	*0,05*	117	0,86
28	*0,00*	58	0,17	88	0,11	118	0,19
29	0,17	59	0,82	89	*0,05*		
30	0,59	60	*0,04*	90	0,57		

Teaching medium: English n = 74
Afrikaans n = 96

TABLE 7.5. LANGUAGE MEDIUM: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (MANN - WHITNEY TEST).

The greatest differences between English- and Afrikaans-speakers appear in answers to questions concerning personal characteristics (Ho rejected in 71% of cases), attitudes towards geography education and practice (Ho rejected in 48% of cases), influences on teaching style (Ho rejected in 58% of cases) and actual and idealised use of teaching methodologies (Ho rejected in 43% of cases).

On the basis of significant differences in group responses the following may be noted :-

(i) proportionately more male respondents are Afrikaans-speaking than would be expected from the sample size.

(ii) English-speaking respondents are more highly qualified and less likely to have trained at a College of Education than are their Afrikaans-speaking colleagues.

(iii) Afrikaans-speaking respondents are mainly involved in teaching at the standard 8 level or below whereas English-speakers generally teach up to the standard 10 level.

(iv) English-speaking respondents predominate in metropolitan schools and Afrikaans-speakers in small town schools.

The highly significant differences between English and Afrikaans groups in relation to training, teaching level and school location helps to explain why language medium as a grouping variable generates such high levels of attitude and practice differences

7.5.1 Attitudes towards geography education (Qs.9 - 50).

Overall, English-speaking teachers are more satisfied with their career choice than their Afrikaans-speaking colleagues (Q.24). The relative dissatisfaction of Afrikaans-speakers

may reflect a mismatch between career aims and level of qualification. Their relatively lower qualifications tend to put them at a disadvantage when competing for promotion posts. No differences are found in relation to group perceptions of their choice of geography as a teaching subject.

As far as reasons for teaching are concerned, the differences between the groups are sufficiently marked for Ho to be rejected in 33% of cases (Table 7.5). Histogram characterisitics indicate that Afrikaans-speaking respondents rate the need for a steady income (Q.15), companionship of the staffroom (Q.16), changing young people's attitudes (Q.17) and preparing pupils to build a new society (Q.22) more highly than do English-speaking respondents. This suggests that Afrikaans-speaking respondents are more concerned with changing and moulding pupils for a particular way of life than their English-speaking colleagues (Qs.17 and 22). This is a significant finding considering the identification of the Afrikaner with, and acceptance of, the aims of Christian National Education.

English- and Afrikaans-speaking respondents show many significant differences in their perceptions of the aims and practice of geography education. Ho is rejected in 48% of cases covering attitudes towards the teaching of content (Qs.33, 35), concepts (Q.26), skills (Q.41), attitude formation (Qs.27, 28, 38), the subject (Q.43) and teaching practice (Qs.46, 47, 48, 50).

Group responses regarding the need to supply pupils with geographical facts about the world (Q.33), develop graphicacy (Q.41) and increase the amount of regional geography content (Q.35) in geography education, indicate that Afrikaans-speakers perceive these attitudes to be more important than do English-speakers. Afrikaans-speakers also feel more strongly that geography education should be concerned with developing young minds (Q.26) than do their English-speaking colleagues.

Afrikaans-speakers feel more strongly than English-speakers that geography should develop a love for country and culture (Q.27) and encourage a wonder of Creation (Q.28). This extends the finding regarding their reasons for teaching and reflects the Afrikaans- speakers' adherence to the dogma of Christian National Education. It is interesting to note that although Afrikaans-speaking teachers on average espouse the development of love of country and culture, they do not feel as strongly as English-speakers that geography should make pupils socially aware (Q.38). To be socially aware in South Africa is to be sensitive to the injustices which result from a ruling class which bases its policy on a sectarian viewpoint regarding country and culture.

In terms of issues affecting the subject, Afrikaans-speaking teachers disagree more strongly than English-speakers with the idea that school geography content should be separate and different from that taught at university (Q.43). This implies that Afrikaans teachers are less pupil-centred in their attitudes and therefore more second phase in their perception of the nature of geography education than are English-speakers.

Concerning attitudes towards geography teaching practice, English- and Afrikaans-speaking teachers differ significantly on almost all issues presented in the questionnaire. Responses are such that Ho can be rejected in 80% of cases. English-speaking teachers are more disposed to the use of pupil-centred techniques such as fieldwork, geographical games and role play (Q.46), than are Afrikaans-speakers. This trend is confirmed by group responses to Q.47 where English-speakers indicate that they are more likely to use pupil activity in geography lessons. However, Afrikaans-speakers are more positive about the theoretical benefits of pupil-centred teaching methods (Q.50). It appears that while Afrikaans-speakers have an appreciation for the benefits of pupil-centred teaching, they are unlikely to translate this into practice. This is reflected in the inconsistency in their attitudes towards the value and use of pupil-centred teaching.

Generally Afrikaans-speakers perceive geography to be a subject which provides pupils with facts about regions of the world, thereby encouraging the development of national pride and a wonder of Creation.

7.5.2 Attitudes towards training and teaching style (Qs.51 - 76).

A significant difference is found between group responses to perceptions of the realities of geography teacher training courses (Q.63). English-speakers are less satisfied with the preparation provided during pre-service training in the light of classroom realities. This suggests that as a group they perceive greater differences between their training experience and the realities of classroom teaching than do their Afrikaans-speaking colleagues. This raises the question of whether the training received in English medium institutions is more liberal than that offered in Afrikaans medium institutions and supports the idea that the school system is largely dominated by the 'conservative' practices and ideals of Afrikaans-speakers.

In the section concerning attitudes towards training Ho could only be rejected for three items out of twelve *viz.*, talks by practising teachers (Q.55), school tasks (Q.56) and gifted pupils (Q.60). English-speaking teachers, on average, rate the importance of talks by practising geography teachers more highly than do Afrikaans speakers. Afrikaans-speaking teachers, however, generally rate school geography tasks and the teaching of gifted pupils in geography more highly than their English-speaking colleagues (Qs. 56 and 60). Overall, Afrikaans-speakers consider training components related to administrative tasks and the teaching of special groups of pupils, as more important than do their English-speaking counterparts. Although differences do exist in the responses of English- and Afrikaans-speakers towards training components, they occur in relation to items which both groups rate as relatively unimportant (Table 6.3). However, 58% of responses to items concerning influences on teaching style allow Ho to be

rejected (Qs.65, 66, 70, 71, 73, 74 and 76). Analysis of group response histograms highlights the following differences :-

(i) Afrikaans-speakers choice of teaching style is influenced more by pre-service training course experience (Q.66), material contained in textbooks (Q.71), instruction on how to teach given by the subject head (Q.73), departmental teacher guides (Q.74) and a desire to obtain promotion (Q.76), than is the case with English-speakers.

(ii) English-speakers are influenced more by role models from their school days (Q.65), the classroom behaviour of pupils and their responses to different teaching styles (Q.70) than are their Afrikaans-speaking colleagues.

The findings above suggest that Afrikaans-speaking teachers are more likely to be susceptible to the influence of views emanating from authoritative sources within the school system than are their English-speaking colleagues. This, coupled with the greater desire to obtain promotion, is likely to predispose them to adopt a teaching style which is more directive than English-speaking colleagues.

7.5.3 Actual and ideal methodology use (Qs.77-118).

Real differences between the groups occur in the actual use of teaching methodologies (Ho may to rejected in 43% of cases). It appears that Afrikaans-speaking respondents use mapwork (Q.80), photographs (Q.77), pictures (Q.78), worksheets for reinforcement purposes (Q.82), textbooks (Q.86) and passages from books (Q.89) more frequently than do English-speakers. Conversely English-speaking respondents use field trips (Q.81), sample tables (Q.84) and films (Q.87) more frequently than do their Afrikaans-speaking colleagues. Clearly Afrikaans-speaking respondents are relatively more teacher-centred in their approach to

geography education than English-speakers. This finding is supported by their responses to what they regard as the ideal use of teaching methodologies (Ho is rejected in 43% of cases).

7.5.4 Summary : Response differences of English- and Afrikaans-speakers'.

The analysis of differences between English- and Afrikaans-speakers' attitudes towards, and practice in, geography education indicates that in general :-

(i) *English-speakers are more highly qualified and teach higher standards than their Afrikaans-speaking counterparts. English-speaking respondents normally teach in metropolitan schools whereas Afrikaans-speakers predominate in small town schools.*

(ii) *Afrikaans-speakers' reasons for teaching relate more towards moulding pupils' attitudes to fit a particular way of life than do those of English-speakers.*

(iii) *English-speakers exhibit greater use, and predisposition to use, methodologies indicating a pupil-centred approach towards classroom practice.*

In particular there are wide differences between English- and Afrikaans-speakers' attitudes towards geography education and practice. Afrikaans-speaking respondents are more likely to view geography education as a vehicle for the teaching of love of country, culture and Creator than English-speaking colleagues. They are also more disposed to stress the learning of factual information about differing regions of the world and adopt a teacher-centred approach in the classroom. English-speaking respondents, on the other hand, are more likely to view geography education as important in developing the social awareness and political

insight of pupils. They also tend to hold attitudes more favourable to the use of pupil-centred methodologies in geography education than do their Afrikaans-speaking colleagues. This view gains further support when considering differences between groups in terms of what influences their choice of teaching style as well as their actual and ideal methodology use.

English-speakers' choice of teaching style is more influenced by factors predisposing them to adopt a non-directive and greater teacher-centred approach in their geography practice. Afrikaans-speaking respondents tend to be influenced by guidance gained from authoritative sources within the school system which, it is postulated, encourage the adoption of a conservative, teacher-centred approach towards geography practice.

Clearly then, Afrikaans-speakers, due to their socialization as pupils and students in Afrikaans medium educational institutions, will be less third phase in attitude and practice than their English-speaking colleagues. It is postulated that this difference is mainly due to the conservative influence of the philosophy of Christian National Education in Afrikaans-medium educational institutions. It follows therefore that Afrikaans-speakers are more likely to resist the implementation of the third phase aims and objectives in geography education than are English- speakers.

7.6 RESPONDENTS GROUPED ACCORDING TO GENDER.

This section examines the extent to which male (n = 123) and female (n = 47) roles may be associated with different attitudes and practice in geography education (Table 7.6). In this regard major differences between group responses are found in relation to personal characteristics (Ho is rejected in 43% of cases), influences on teaching style (Ho is rejected in 50% of cases), and the use of teaching methodologies (Ho is rejected in 33% of cases).

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	----	31	0,62	61	0,11	91	0,89
2	*0,02*	32	0,33	62	*0,00*	92	0,34
3	0,86	33	0,47	63	0,15	93	0,43
4	0,24	34	0,60	64	0,99	94	0,32
5	*0,00*	35	*0,01*	65	*0,01*	95	0,78
6	0,58	36	0,43	66	0,95	96	*0,03*
7	*0,02*	37	0,48	67	*0,05*	97	*0,00*
8	0,20	38	0,39	68	*0,00*	98	0,10
9	0,28	39	0,60	69	*0,00*	99	0,82
10	0,34	40	0,88	70	0,38	100	*0,71*
11	0,89	41	0,24	71	0,66	101	0,92
12	0,40	42	0,39	72	0,16	102	0,48
13	0,16	43	0,43	73	*0,05*	103	*0,02*
14	*0,00*	44	0,56	74	0,49	104	0,42
15	0,10	45	0,28	75	0,58	105	0,67
16	0,23	46	0,17	76	*0,01*	106	0,73
17	*0,08*	47	0,63	77	0,86	107	0,23
18	0,10	48	0,46	78	*0,06*	108	*0,01*
19	0,88	49	0,40	79	0,52	109	0,11
20	0,68	50	0,31	80	0,26	110	0,18
21	0,66	51	0,31	81	0,94	111	*0,00*
22	0,84	52	0,16	82	*0,01*	112	0,95
23	*0,08*	53	*0,00*	83	0,25	113	*0,04*
24	*0,02*	54	*0,06*	84	0,14	114	0,46
25	0,52	55	0,31	85	0,19	115	0,26
26	0,50	56	0,94	86	0,66	116	0,56
27	0,51	57	0,69	87	*0,04*	117	*0,06*
28	0,20	58	0,88	88	0,22	118	0,30
29	0,88	59	0,15	89	*0,00*		
30	0,92	60	0,48	90	*0,02*		

Male teachers n = 123
Female teachers n = 47

TABLE 7.6. GENDER: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS (MANN - WHITNEY TEST).

The relative position of women in the Cape Education Department may be discerned from the fact that female respondents have significantly less geography training and occupy lower school posts than do their male colleagues. Interestingly, more female respondents use English as a medium of instruction and males, Afrikaans. Language groupings showed that differences in attitude towards teaching as a career were most marked in English-speaking males. This finding is supported by male/female perceptions of job satisfaction (Q.24), the importance of career advancemenmt (Q.14) and the desire to obtain promotion (Q.76), where significant differences are found between group responses. Male respondents, as a group, are significantly more concerned with career advancement than are female respondents and more likely to feel that they made the wrong decision by becoming a teacher. They also indicate more frequently than females that they desire to obtain promotion. It is suggested therefore that the poor level of material benefits, difficulties encountered in gaining promotion and the generally low status accorded teachers in the community, affect male perceptions of the worth of a teaching career more than females and giving rise to their greater level of job dissatisfaction (which is particularily marked in the case of English-speaking males).

7.6.1 Attitudes towards geography education (Qs.9-25).

Group responses concerning attitudes towards geography education and practice make it possible to reject Ho for item 35 only (Table 7.6) and it appears that female respondents are more favourably disposed towards increasing the amount of regional geography presented at school level than are their male colleagues. This difference in viewpoint is more likely to be training- than gender-based, as female respondents have generally received less training in the subject than males.

7.6.2 Attitudes towards training and teaching style (Qs.51-76).

Although female respondents, as a group, rate the importance of practical geography teaching and the teaching of geography in disadvantaged schools more highly and the need to include the philosophy of geography education less highly than their male colleagues, there are no other real differences in group attitudes towards the importance of training components.

However, male/female response differences towards influences upon teaching style are significantly marked for Ho to be rejected in 50% of cases. Female respondents are generally more influenced in their choice of teaching style by role models, *viz.*, teachers admired as a pupil (Q.65), colleagues and department heads (Qs.68 and 73), than are male respondents. They are also more influenced by the availability of prepared teaching material (Q.69) and ideas gained from books and journals (Q.67).

From these results it appears that females are less individualistic in their choice of teaching style and tend rather to conform to the style used by 'significant others'. However, they are relatively more influenced by books and journals than are male teachers, which suggests that females may be more willing to accept new ideas and innovative teaching practices than are their male colleagues. Males, on the other hand, are more likely to adopt a teaching style perceived to be 'safe' and acceptable to those who evaluate their practice for promotion purposes (Q.76).

7.6.3 Actual and ideal methodology use (Qs.77-118).

In this section Ho is rejected in 33% of cases (Qs.78, 82, 87, 89, 90, 96 and 97). Of these seven items, three relate to differences in the use of literature in lessons, two to the use of visual aids, and one each to the use of pupil- and teacher-centred methodologies. Male/female response locations to these items show that in general :-

(i) female respondents use passages from books (Q.89), newspaper articles (Q.96) and journal and magazine articles (Q.97) more frequently than do their male colleagues. This supports the previous finding that the teaching style of females is more influenced by the availability of books and journals than is that of males and would suggest a willingness to read about the subject and try out new ideas.

(ii) female respondents use pictures (Q.78) and films (Q.87) as teaching aids more frequently than do male respondents.

(iii) female respondents indicate that they use worksheets for reinforcing learnt material (Q.82) and geographical games (Q.90) more frequently than do male respondents.

Although the findings above suggest that female use of teaching methodologies is more third phase in nature than their male colleagues, it is noted that where real differences exist, they result from responses to items which both groups indicate as infrequently used. It is noted, therefore, that both male and female geography teachers are largely second phase in their approach. This contention is supported by group responses to their ideal use of teaching methodologies which show no real differences between items indicating a teacher- or pupil-centred approach, with the exception of the relative female preference for the use of geographical games (Q.111).

From the findings above, gender does not appear to play a role in determining whether an individual adopts, or is predisposed to adopt, a third phase approach towards geography education. Those significant differences which exist in the attitudes of respondents do not lead to a markedly different choice of teaching style and practice. Accordingly, the quality of geography education in Cape

Education Department schools is not likely to be unduly influenced by the proportion of male to female teachers in a school. It is interesting to note that the greater concern of male teachers with career advancement does not lead to the adoption of better teaching practice, a reason which is sometimes advanced by departmental officials as a justification of a job selection policy which favours the employment of males.

7.7 BETWEEN-GROUP DIFFERENCES IN ATTITUDE AND PRACTICE.

Analysis of teacher responses to questionnaire items established that Cape Education Department geography teachers are, as a whole, second phase in their attitudes and practice (Chapter 6). That a broad generalization of this nature can be misleading becomes obvious when responses are grouped according to selected variables. It is possible to evaluate questionnaire items, sections and the variables themselves in terms of their effectiveness in highlighting differences in teacher attitudes and practice.

Real differences between subsets have been isolated on a statistical basis and it is therefore possible to justify focusing on particular attributes of the groups. Detailed analysis of these specific aspects has made it possible to identify those who are furthest removed from, or closest to, the ideals of third phase geography education and to determine precisely where these differences appear. The approach is thus highly successful in recognizing groups of teachers whose attitudes and practice are most in need of change if the third phase aims of the syllabus are to be achieved. Identification of target areas and groups is important in order to formulate strategies designed to move geography education towards the achievement of third phase aims. This is accomplished by analysing items where significant differences are found between responses grouped according to selected variables (Table 7.7).

ITEM	GROUPING						ITEM	GROUPING					
	1	2	3	4	5	6		1	2	3	4	5	6
9		x					69						x
11				x			70		x	x			
13		x					71					x	
14		x	x			x	72		x	x			
15			x				73	x					
16			x		x		74			x	x	x	
19			x				75		x				
20		x	x				76					x	x
21					x		77					x	
24						x	79			x			
25	x		x				80		x		x	x	
26					x		81	x	x	x		x	
27			x	x	x		82						x
28				x	x		84	x			x	x	
31			x				85	x					
33					x		86				x	x	
34				x			87						x
35	x		x	x	x	x	88			x			
36	x		x				89						x
38	x		x		x		90						x
41		x			x		91		x				
42	x		x				92		x				
43		x					93				x		
45	x		x				94			x			
46					x		96	x					x
48					x		97						x
50		x	x	x	x		100	x	x		x		
53						x	101					x	
55					x		102	x				x	
56		x	x		x		103						x
58			x				105	x			x		
60		x			x		106					x	
61		x					107				x	x	
62		x				x	108		x				
63					x		110				x	x	
64				x			111						x
65						x	112						
66		x	x	x	x		113						x
67	x			x			116	x	x				
68						x	Total	16	22	24	18	30	18

Variable 1 = length of training
2 = training period
3 = teaching level
4 = school location
5 = language medium
6 = gender

TABLE 7.7 ITEMS EXHIBITING SIGNIFICANT RESPONSE DIFFERENCES FOR EACH GROUPING VARIABLE.

Generally items which do not give rise to significant differences between groups are those which establish common ground in teacher attitudes and practice in geography education. Most real differences emerge in group responses to items relating directly to second or third phase views of the subject (Table 7.7). In particular they include items concerning attitudes towards geography education and practice i.e. developing a love of country and culture (Q.27), the need to present more regional geography (Q.35), facilitating social awareness (Q.38) and the relative benefits of pupil- and teacher-centred practice (Q.50). Also included are items which highlight the use of teaching methodologies i.e. the actual use of mapwork, fieldwork and sample tables (Qs.80, 81 and 84) and the ideal use of case studies (Q.100). These items generate the largest number of significant group response differences and indicate issues on which teachers are already divided. Accordingly, these attitudes and methodologies could be successfully exploited in order to encourage teachers to adopt third phase practice.

A total of 79 items (72%) in the questionnaire are seen to distinguish significant differences in responses for one or more of the grouping variables. Obviously some of these items are linked but 39 of them are unique in that they identify where differences relate to one particular group only e.g. in item 68 a significant response difference appears only when respondents are grouped according to gender. When responses to an item reflect significant differences for more than one grouping variable it suggests that these variables might be associated. There are 19 item pairings of this nature e.g. training period and teaching level may be associated in terms of responses to item 70.

In only 12 instances do questionnaire items generate significant response differences to the same item on 3 or more of the variables. This poses questions of whether the grouping variables are appropriate; whether the items themselves do not recognise truly identifiable characteristics or whether the interrelations are such that

a multivariate technique should be applied to the data set. Accordingly the data were subjected to factor and cluster analysis. The findings, however, indicate that neither obvious factors nor clearly discernible clusters are identifiable. These 12 cases, then, are a reflection of real association between variables which apply only to the specific items. It follows that the methodology used in this study to determine between-group differences is highly appropriate and would seem to be the best way of identifying precisely where real differences lie between the groups.

Certain sections of the questionnaire were more effective in generating significant differences between some groups than others (Table 7.7). These are influences upon teaching style, attitudes towards geography education and practice and the use of teaching methodologies. These sections are those which are most applicable and useful in terms of assessing the nature of geography within an education system. Within these sections some produce relatively more significant differences when responses are grouped according to certain variables, than do others. Thus responses, when grouped according to language medium and by teaching level generate the largest number of significant differences concerning attitudes towards geography education and practice. When language medium is combined with training period, they generate the largest number of significant differences relating to influences upon teaching style, and when combined with gender, the largest number of significant differences concerning the use of teaching methodologies.

Overall, by far the greatest number of real differences appear when responses are grouped according to language medium (Ho may be rejected in 43% of cases). This indicates the importance of language in the process of teacher socialization within the Cape Education Department. It is language medium which emerges as the most important single variable identifying teachers with divergent viewpoints regarding geography education and practice. In this regard those who teach through the medium of Afrikaans are markedly less third phase in their attitudes and practice than their

English-speaking colleagues. Afrikaans-speaking teachers, as a group, consistently rate attitudes and practice reflecting second phase viewpoints more positively, and third phase viewpoints more negatively, than do their English-speaking colleagues. This difference between group viewpoints is most clearly evident from responses to items concerning teaching practice issues - a finding which supports many of the arguments and assumptions set out in Chapters 1 and 2 relating to the impact of Christian National Education upon the attitudes and practice of geography teachers. Concomitant with this finding is the fact that geography education is markedly different in English and Afrikaans-medium schools and institutions, a factor which must be taken into account if 'White' geography education in both the Cape Education Department and South Africa as a whole is to become third phase in nature.

A similar proportion of differences are generated when teachers are grouped according to teaching level, training period and school location (Ho is rejected in 30%, 27% and 27% of cases, respectively). That the first two variables are inevitably associated is evident from the fact that the same items highlight significant differences on both groupings in 40% of cases. Respondents who teach up to the standard 9 and 10 level display attitudes indicating that as a group they employ an approach towards geography education which is more third phase in nature than those who teach solely in the lower standards. The finding, may however, reflect the fact that most junior teachers are Afrikaans-speakers and most senior teachers, are English-speakers. It follows that junior secondary level geography is less third phase in nature than that found at the senior secondary school level.

Although the practice of both groups is similar, pre-1970 respondents reflect a greater second phase emphasis in approach towards the subject. This is particularly the case in response to items dealing with pupil-centred issues in geography education. The more positive view, held by post-1970 trained respondents towards pupil-centred education

also reflects their actual and idealised use of teaching methodologies.

Respondents residing in small town schools are less third phase in their approach to geography education than colleagues in larger centres. It is postulated that this is an indirect result of cultural differences generated by the fact that small town schools predominantly reflect Afrikaner values and metropolitan schools English values and attitudes towards education. These differences are magnified by the widely accepted fact that people living in rural areas tend to be more conservative in their attitude towards new innovations and ideas than those in large urban areas. Interestingly, the perceived influences upon teaching style vary markedly between teachers in schools located in different sized centres. In this regard the need for remedial action in terms of in-service training is clear. The fact that most in-service courses are conducted in metropolitan areas would indicate that those most in need of training are not being catered for.

Gender and length of training each identify a similar number of real differences between group responses (Ho may be rejected in 24% and 22% of cases respectively). Few, if any, differences exist between male/female use of pupil- and teacher-centred techniques. However, male teachers are more likely to adopt a style which they perceive will win the approval of those in authority, whereas females are more influenced by past and present role models and ideas gained from books and journals. From this it is contended that females are more likely to be susceptible to the adoption of third phase practice than their male colleagues.

Of all the factors used as grouping variables, length of training produced the fewest response differences, indicating that increased training does not bring about marked change in teacher attitudes and practice. It is particularly notable that the number of differences identified between the teaching practice of those with 2 years or less and 5 years or more training experience, are

fewer than those generated by any of the other grouping variables. This finding suggests that training is not an important influence in the process of geography teacher socialization.

There are marked implications arising from analysis of between-group differences in geography teacher attitudes and practice. These differences may be used to identify target areas for change :-

Firstly, the whole system of Afrikaans-medium education (both in schools and tertiary institutions) supports the maintenance and perpetuation of second phase attitudes and practice. Although fraught with difficulty, strategies for change should be devised to overcome this fundamental problem and further research is necessary to expose the underlying factors which influence Afrikaans speakers' approach towards education in general, and geography education in particular.

Secondly, particular attention needs to be given to the teaching of geography in the junior secondary phase. Traditionally in-service training has been focused upon the senior secondary level. While this is not to be discouraged, there is a great need for in-service training to be given to junior secondary level teachers if third phase aims and practice are to become the norm at all levels in secondary schools. The notion that a third phase geography approach will 'trickle down' to lower standards does not appear to occur in practice.

Thirdly, pre-1970 trained teachers who are less third phase than their younger colleagues, are most likely to occupy senior positions in the school hierarchy thereby influencing junior teachers to adopt teacher-centred practice. If change is to occur, strategies need to be devised to encourage older teachers to be not simply well-versed in the 'new geography' content but also to teach it in an appropriate manner. In this regard it

is suggested that in-service workshops involving practical experience in the use and preparation of pupil-centred teaching methodologies would go a long way towards improving the situation.

Fourthly, change will need to occur in small town schools. A strategy which provides special in-service education programmes for those in small centres could help improve the situation, particularly as responses from small town teachers reveal that they are susceptible to influences emanating from departmental sources.

Finally, as length of academic and professional training have been shown to have little effect upon teachers' adoption of third phase attitudes and practice, it is essential to establish what training does achieve. More research should be undertaken to establish the long-term effects of pre-service geography methodology courses and their influence upon teacher adoption of non-directive pupil-centred teaching strategies in the schools. Findings in this respect should feed back into the training system in order to inform the nature of training programmes. Further testing can then focus on whether a new system of teacher education would have a more positive effect upon the adoption of third phase ideals by teachers in the schools.

The research discussed in this chapter has identified where differences lie in geography teacher attitudes and practice in the Cape Education Department. It is thus possible to target those teachers having attitudes and practice which are furthest removed from the ideals of third phase geography education. As these differences are not apparently due to the influence of training it remains to investigate how, and at what point in their career, teacher attitudes towards, and practice in, geography education are formed.

CHAPTER EIGHT

GEOGRAPHY TEACHER SOCIALIZATION : TRAINING AND SCHOOL EXPERIENCE.

Differences between respondants grouped according to training period, indicate that changes occur in teacher attitudes and practice with time. This supports socialization and classroom decision-making theory that attitudes and practice change as individuals move from student to experienced teacher. Most of these changes appear to occur during the probationary year of teaching (section 3.1 and 3.2). However, Chapter 8 is not confined to an investigation of the probationary year of teaching only, but is aimed at identifying and monitoring the process of geography teacher socialization as individuals move through the career hierarchy. Two research techniques were used in order to determine the nature and process of change. Firstly, using questionnaire data, periods of change were identified by statistical analysis of between-group differences relating to positions in the geography career hierarchy. Secondly, this process of change was monitored by analysis of probationary teacher diaries concerning influences upon their attitudes and practice.

8.1 RESPONDENTS GROUPED ACCORDING TO POSITION IN CAREER HIERARCHY.

The position of teachers in the career hierarchy is largely determined by experience rather than training, school or personal variables. Accordingly, changes in attitude and practice between respondents in different post levels allows insight into the process of socialization without the complicating influence of the differences identified in Chapter 7. The analysis is further enhanced as there is a good spread of respondents in different career posts (Table 6.1).

Longitudinal changes in attitudes and practice are identified by differences in response (using P3D and P3S programmes as in Chapter 7) between consecutive groups categorised according to respondent's position in the career hierarchy, i.e., beginning student, qualified student, probationer, teacher, senior teacher and head of department. Although in the survey 2% of respondents were deputy principals or principals, the sample was too small once all cases where one or more items had not been answered were rejected (see Chapter 7).

Accordingly there are six categories defined as follows. Beginning students are those who are at the start of their professional training (post-graduate higher diploma in education). Qualified students are those who have just completed their post-graduate higher diploma in education. Probationers are individuals in their first year of teaching. Teachers are those teaching geography but not in charge of the geography education programme in a school. Senior teachers are in charge of geography education programmes in a particular school. Finally, heads of department (HODs) are those who hold senior administrative posts in the school hierarchy as well as teaching geography (they may also be in charge of the geography education programme in a school).

As the purpose of the analysis is to identify the process of teacher socialization, it is important to know not only the nature of differences but also when they occur. It was therefore decided to test for real differences between the groups by comparing pairs in temporal order on the career hierarchy rather than by using multivariate techniques. Accordingly the Mann-Whitney test was applied to consecutive data sets. As in previous cases, real differences were taken as those where $p = < 0,10$.

Given the aims of this chapter, the discussion focuses upon items which deal specifically with an individual's attitudes towards, and practice in, geography education. Items concerning personal characteristics, reasons for teaching

and attitudes towards geography teacher training components, therefore, are not discussed although reference to Tables 8.1 - 8.10 will enable those interested to establish the nature of any differences in the above attributes.

8.1.1 Differences in response between beginning and qualified students.

In order to establish pre-service attitudes towards geography education and practice, geography methodology students from the four feeder universities in the Province completed questionnaires before, and again after undertaking their post-graduate higher diploma in education (HDE). Student responses to the questionnaires were not matched due to the anonymous nature of the study, although with hindsight it would have been possible to allocate a random number for each student. Although student questionnaires contained the same questions as the teacher survey some sections were not included. In particular, beginning students were not asked to comment on both their actual and preferred use of methodologies, and qualified students, although commenting on their ideal in the use of methodologies, were not required to indicate their actual use of aids and techniques. These sections, therefore, were excluded from the respective questionnaires. Analysis of within-group differencees between beginning and qualified students does not, therefore, include actual and ideal use of methodologies, and differences between qualified students' and probationary teachers' actual methodology use.

According to teacher socialization theory (section 3.1), students at the commencement of pre-service training have already informally established attitudes towards education and practice as a result of the process of anticipatory socialization (Lortie, 1975). Due to participation in an HDE course, however, these attitudes should become more 'liberal' in nature (Hogben and Petty, 1979). By comparing the attitudes of geography students before and after the completion of a geography methodology course it is possible

to gauge the short term impact of training and test the theoretical assumptions above.

Table 8.1 presents the probabilities that between-group response differences to question items dealing with attitudes towards geography education and practice, as well as perceived influences upon teaching style, are the result of chance. Overall the null hypothesis could be rejected in 32% of cases ($p = < 0,10$).

8.1.1.1 Attitudes regarding geography education and practice (Q.26-50).

Real differences in responses between beginning and qualified students in this section occur for 9 out of 25 items (Ho is rejected in 36% of cases). Those responses reflecting possibly significant differences ($0,10 > p \geq 0,05$) relate to perceptions of the relevance of the subject in relation to the needs of pupils (Q.44), the ideal time to be spent on 'teacher talking' as opposed to 'pupil working'(Q.47), and whether pupil-centred teaching methods achieve greater learning in pupils than traditional methods (Q.50). Items displaying significant differences between responses ($p < 0,05$) concern perceptions of the importance of geography in developing a love for country and culture (Q.27), teaching concepts and skills useful to society (Q.29), instilling respect for moral values and tolerance of other races, religions and ways of life (Q.30), developing problem-solving skills (Q.36), conformity in the use of teaching methods (Q.48), and the practicalities of using pupil-centred methods (Q.49).

In all instances qualified students hold more liberal attitudes towards geography education and practice than they did as beginning students. Clearly geography methodology courses play a positive role in influencing students to adopt third phase attitudes and practice.

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,53	21	0,60	41	0,16	61	0,50
2	0,99	22	0,41	42	0,12	62	0,27
3	0,28	23	0,56	43	0,48	63	*0,06*
4	0,50	24	0,46	44	*0,07*	64	----
5	----	25	0,22	45	0,75	65	0,43
6	----	26	0,31	46	0,29	66	0,84
7	0,90	27	*0,04*	47	*0,09*	67	0,22
8	*0,08*	28	0,37	48	*0,02*	68	0,68
9	0,82	29	*0,02*	49	*0,00*	69	0,77
10	0,33	30	*0,01*	50	*0,07*	70	0,65
11	0,31	31	0,68	51	0,87	71	*0,00*
12	0,78	32	0,49	52	0,64	72	0,40
13	0,72	33	0,56	53	0,69	73	0,17
14	0,57	34	0,37	54	0,55	74	*0,05*
15	0,11	35	0,83	55	0,92	75	*0,03*
16	0,19	36	*0,00*	56	0,51	76	0,93
17	0,35	37	0,36	57	0,16		
18	0,72	38	0,72	58	*0,04*		
19	0,45	39	0,75	59	0,68		
20	0,17	40	0,92	60	0,93		

Beginning students n = 69
Qualified students n = 60

TABLE 8.1. GEOGRAPHY METHODOLOGY TRAINING STUDENTS: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

8.1.1.2 Influences upon teaching style (Q.65 - 76).

Real differences only emerged in three instances *viz.*, items dealing with the perceived influence of textbooks (Q.71), teacher guides (Q.74) and examinations (Q.75) upon an individual's choice of teaching style. Group response histograms indicate that once qualified, students rate the above items to be of lesser importance in influencing their choice of teaching style than they did at the beginning of their HDE course. The change in attitude towards examinations and textbooks suggests that as students progress through their HDE year they become less influenced by factors predisposing them towards the adoption of second phase practice (section 4.2). This finding supports the contention that geography methodology courses help encourage third phase aims and practice (section 8.1.1.1).

8.1.2 Differences in response between qualified students and probationers.

It is postulated that major changes will occur in the attitudes held by individuals at the end of their training and after a few months as probationary teachers (Denscombe, 1982). Generally, researchers suggest that "the impact of the university is evident but does not last beyond the first few high-pressure weeks of full-time teaching during which a reorientation to what might be called the orthodox position is already well under way" (Hogben and Petty, 1979, p.219). Accordingly, it could be expected that differences between qualified student and probationary teacher responses would reflect a move from a liberal to a conservative position regarding the nature of geography education and practice (section 3.1).

Overall, real differences between qualified student and probationer responses to questionnaire items are found in 31% of cases (Table 8.2). In particular, major differences occur in relation to the idealised use of teaching aids and techniques (Ho rejected in 48% of cases).

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,84	26	0,56	51	0,35	76	0,65
2	*0,08*	27	0,57	52	0,57	98	0,47
3	*0,00*	28	0,56	53	0,60	99	*0,08*
4	*0,01*	29	0,62	54	0,92	100	*0,03*
5	----	30	0,13	55	0,52	101	0,74
6	0,87	31	0,18	56	0,40	102	0,33
7	0,28	32	0,36	57	0,60	103	0,57
8	*0,00*	33	0,61	58	0,47	104	*0,03*
9	0,69	34	0,42	59	0,81	105	*0,02*
10	0,91	35	*0,02*	60	0,35	106	0,54
11	0,91	36	0,95	51	0,24	107	0,39
12	0,78	37	0,57	62	0,57	108	0,16
13	0,15	38	0,56	63	*0,00*	109	*0,08*
14	0,19	39	0,17	64	0,01	110	0,90
15	0,77	40	*0,06*	65	0,73	111	*0,05*
16	*0,00*	41	0,71	66	0,26	112	*0,05*
17	0,41	42	0,56	67	0,60	113	0,18
18	*0,09*	43	0,94	68	0,93	114	*0,01*
19	0,66	44	0,55	69	0,46	115	*0,04*
20	0,36	45	0,18	70	0,44	116	0,67
21	0,71	46	*0,07*	71	*0,00*	117	0,10
22	0,93	47	*0,00*	72	0,40	118	*0,02*
23	*0,06*	48	*0,00*	73	0,88		
24	0,15	49	*0,00*	74	0,64		
25	0,47	50	0,25	75	*0,06*		

Post-training students n = 53
Probationers n = 18

TABLE 8.2. QUALIFIED STUDENTS AND PROBATIONERS: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

8.1.2.1 Attitudes regarding geography education and practice (Q.26 - 50).

In this section Ho is rejected in 24% of cases. Although real differences between the two groups emerge in attitudes towards increasing the amount of regional geography in schools (Q.35) as well as encouraging environmental awareness and conservation ethics in pupils (Q.40), of greater interest are differences in attitudes towards the use of pupil-centred teaching methods (Qs.46, 47 and 49) and the influence of colleagues on methodology choice (Q.48). In this regard :-

(i) probationers are less positive regarding the importance of regional content and developing environmental awareness and ethics in geography education than qualified students.

(ii) probationers indicate that they perceive pupil-centred teaching to be idealistic and not practical in reality; qualified students hold the opposite viewpoint. Qualified students also favour a greater amount of 'pupil working' to 'teacher talking' in geography lessons than do probationers .

(iii) probationers acknowledge that they normally conform to the teaching practice of colleagues in the school, whereas qualified students do not feel that they will be influenced by colleagues once they start teaching (modes = 2 and 4 respectively).

As an individual progresses from being a qualified student to a probationary teacher, changes in attitude are mainly concerned with teaching practice issues where a definite move away from the previously held positive perceptions regarding pupil-centred teaching is evidenced. This change clearly supports socialization theory and indicates that

school experience is more influential than training in determining teacher attitudes towards practice.

8.1.2.2 Influences upon teaching style (Q.65 - 76).

Here, Ho is rejected in 17% of cases. An item reflecting a possibly significant difference is the influence of examinations (Q.75) on teaching style. A significant difference is found for the influence of textbooks (Q.71). Response histograms show that both of the above items are more influential in determining choice of teaching style when individuals move from qualified student to probationer. In particular, change in perception of the importance of textbooks is very marked.

It is particularly interesting to analyse the direction of changes occurring in the perception of qualified students and probationers towards the relative importance of factors influencing their choice of teaching style. Although the correlation is high (r_s = 0,73) and significant at the 95% level, the top four positions in the qualified student and probationer rankings show interesting differences (Table 8.3). Firstly, the availability of equipment and other prepared teaching material, as well as the classroom behaviour of pupils, are ranked in the top three by both groups and can thus be considered as enduring in their importance. Secondly, qualified students rate ideas gained during their teacher training course as the most important factor influencing their choice of teaching style, whereas probationers rank this item as only sixth in importance. Thirdly, the influence of textbooks on teaching style drops to tenth position for qualified students from being considered third in importance by probationers. Finally, examinations occupy fourth position in the probationer rankings but only ninth position in the qualified student ranking.

Together these findings indicate that school experience has a stronger influence upon teacher choice of style than training and supports the ideas of Mardle and Walker (1979)

ITEM	INFLUENCES ON TEACHING STYLE	QUALIFIED STUDENT	PROBATIONER	MOVE
65	*Teachers admired while pupil*	6	7*	-1
66	*Ideas from teacher - training*	1	6	-5
67	*Ideas from books/ journals*	4	7*	-3
68	*Teaching styles of other teachers*	7	5	+2
69	*Equipment/ prepared material*	3	2	+1
70	*Pupil classroom behaviour*	2	1	+1
71	*Textbooks*	10	3	+7
72	*Inservice courses/ Geog. associations*	5	10	-5
73	*Instructions from subject head*	11	9	+2
74	*Departmental guides*	8	11	-2
75	*Examinations*	9	4	+5
76	*Desire for promotion*	12	12	0

* identical mean

TABLE 8.3. RANKING OF INFLUENCES ON QUALIFIED STUDENT AND PROBATIONER TEACHING STYLES (RANKING ACCORDING TO RESPONSE MEANS).

and others (section 3.2). The effect of an increase in the influence of textbooks and examinations and a corresponding decrease in the influence of training (Qs.66 and 72) upon the choice of teaching style, suggests that teaching practice will become less third phase in nature as individuals move from qualified student to probationer.

8.1.2.3 Idealised use of teaching methodologies (Q.98 - 118).

An obvious question which is raised is whether the changes in the relative importance of factors influencing teaching style are a response to classroom pressure only, or whether the ideals remain unchanged. Interestingly, the responses of qualified students and probationers regarding their idealised use of teaching methodologies show many differences (Ho is rejected in 48% of cases).

Qualified students rate their ideal use of pictures (Q.99), case studies (Q.100), worksheets as discovery method (Q.104), sample tables (Q.105), slides (Q.109), geographical games (Q.111), video films (Q.114), journal and magazine articles (Q.118) more highly than probationers. In direct contrast probationers rate the idealised frequency of using talk and chalk (Q.112) and the discussion and reading of duplicated notes (Q.115) more highly than qualified students.

Clearly as individuals move from qualified student to probationary teacher they become more teacher-centred in their approach to geography practice not only in their attitudes towards the use of methodologies but in terms of their ideals as well. Once again these results support the theory that school experience plays a greater role in determining teacher practice than training experience (section 3.1).

8.1.3 Differences in response between beginning students and probationers.

The preceding sections have identified real differences between beginning and qualified students as well as between qualified students and probationers in both attitudes and practice. Whether beginning student attitudes differ significantly from those of probationers has not been established. Depending on whether one agrees with the idea that changes between student and probationer attitudes result from the process of anticipatory socialization or the influence of school experience, differences between beginning students and probationers would be expected to reflect either :-

(i) few differences, due to a reversal of attitudes towards those held before training commenced as a result of the relative dominance of anticipatory socialization over training experience; or

(ii) numerous differences, reflecting the accommodation of training influences resulting from the interaction between training and school experience, during the probationary year.

8.1.3.1. Attitudes regarding geography education and practice (Qs.26 - 50).

From Table 8.4 it is noted that Ho is rejected in 28% of cases in this section (Qs.35, 36, 39, 40, 47, 48 and 49). Items reflecting significant differences concern attitudes towards increasing the amount of regional geography at school level (Q.35), the development of problem-solving skills (Q.36), appreciation of the environment (Q.39), environmental awareness and conservation ethics (Q.40), as well as practice issues (Qs.47, 48 and 49). Group response histograms for these items reveal that generally :-

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,71	21	0,45	41	0,57	61	0,30
2	*0,04*	22	*0,03*	42	0,61	62	*0,08*
3	*0,00*	23	0,77	43	0,83	63	*0,00*
4	*0,00*	24	*0,00*	44	0,73	64	----
5	----	25	0,03	45	0,86	65	0,97
6	----	26	0,47	46	0,13	66	*0,01*
7	0,21	27	0,88	47	*0,03*	67	*0,07*
8	0,00	28	0,61	48	*0,00*	68	0,54
9	0,85	29	0,25	49	*0,00*	69	0,24
10	0,62	30	0,89	50	0,73	70	0,21
11	0,81	31	0,17	51	0,23	71	*0,04*
12	0,33	32	0,81	52	0,90	72	*0,01*
13	0,41	33	0,35	53	0,75	73	0,29
14	0,79	34	0,57	54	0,30	74	*0,01*
15	0,37	35	*0,01*	55	0,61	75	0,76
16	*0,01*	36	*0,01*	56	0,53	76	0,71
17	0,59	37	0,35	57	0,82		
18	0,77	38	0,77	58	0,37		
19	0,23	39	*0,04*	59	0,48		
20	0,60	40	*0,01*	60	0,29		

Beginning students n = 69
Probationary teachers n = 23

TABLE 8.4. BEGINNING STUDENTS AND PROBATIONERS: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

(i) beginning students feel more strongly about increasing the amount of regional geography in the syllabus, developing critical appreciation of the environment, environmental awareness and conservation ethics, than do their probationary colleagues. Although the above identifiable differences in attitude towards syllabus content, skills and environmental concerns exist, they cannot be expected to have as direct an impact upon classroom behaviour as those relating to practice issues.

(ii) probationers, although favouring the development of problem-solving skills more than beginning students, show a greater teacher-centred approach (Q.47) and believe more strongly that pupil-centred approaches are not practical in reality (Q.49). Probationers also acknowledge a greater dependence upon colleagues, as they conform in their methods of teaching more than they had anticipated as beginning students (Q.48). The attitudes of beginning students are more third phase in nature than those held by probationers. These changes in attitude towards geography practice are worrying and indicate that the effect of training experience, relative to that of school experience, is minimal in terms of its influence on an individual's choice of teaching practice.

8.1.3.2 Influences on teaching style (Q.65 - 76).

The many differences between group responses (Ho is rejected in 42% of cases in the section) indicate that anticipatory socialization does not play a large role in determining geography attitudes and practice in the Cape Education Department.

Real differences appear in responses to the importance of pre-service training programmes (Q.66), ideas gained from books and journals (Q.67), textbooks (Q.71), in-service training/geography teacher associations (Q.72), and teacher guides from the education department (Q.74). Response histograms reveal that :-

(i) beginning students expect the influence of teacher training, ideas gained from books and journals, in-service training, geographical associations and departmental teacher guides to be of greater importance than probationers do.

(ii) probationers find the influence of textbooks to be more important than do their beginning student colleagues.

The above differences in perception of expected and real influences upon an individual's choice of teaching style clearly indicate that those related to training experience decline dramatically in importance once individuals enter the school environment. Although there is a very strong positive correlation (r_s = 0,80 which is significant at the 98% level) between the ranking of responses (Table 8.5), it is clear that those factors showing a positive move (Qs.65, 68, 69, 70, 71, 73 and 75) relate to school influences. In particular the influence of textbooks and examinations are seen to increase in importance. On the other hand the importance of pre-service training, in-service courses and geography associations (Qs. 66, 67, 72 and 74) show large negative changes in ranking as they decrease in relative importance once respondents start teaching.

The finding above implies that students start their geography methodology course with positive expectations of training and regard it as influential in relation to their choice of teaching style. In the case of the Cape Education Department at least, the influence of anticipatory socialization is not as strong as expected. This is

ITEM	INFLUENCES ON TEACHING STYLE	BEGINNING STUDENT	PROBATIONER	MOVE
65	*Teachers admired while pupil*	8	7*	+1
66	*Ideas from teacher - training*	1	6	-5
67	*Ideas from books/ journals*	4	7*	-3
68	*Teaching styles of other teachers*	6	5	+1
69	*Equipment/ prepared material*	3	2	+1
70	*Pupil classroom behaviour*	2	1	+1
71	*Textbooks*	9	3	+6
72	*Inservice courses/ geog. associations*	5	10	-5
73	*Instructions from subject head*	11	9	+2
74	*Departmental guides*	10	11	-1
75	*Examinations*	7	4	+3
76	*Desire for promotion*	12	12	0

* identical mean

TABLE 8.5. RANKING OF INFLUENCES ON BEGINNING STUDENT AND PROBATIONER TEACHING STYLES (RANKING ACCORDING TO RESPONSE MEANS).

illustrated by the low ranking of the influence of past teachers upon choice of teaching style (Q.65). Once individuals become probationary teachers, however, school experience reduces the influence of a training which stresses pupil-centred approaches to teaching practice. Simultaneously, factors predisposing teachers to adopt a teacher-centred approach to practice increase in importance as probationers struggle to deal with the reality of classroom teaching.

8.1.4 Differences in response between probationers and teachers.

Theory regarding teacher socialization would suggest that relatively few differences between probationer and teacher attitudes and practice should be found when compared with those that exist between qualified student and probationer. It is suggested that the first year of school experience moulds probationers' attitudes and they quickly conform to the practice of their colleagues (Hogben and Petty, 1979).

As the Ho is rejected in only 20% of cases (Table 8.6) this theory apparently holds in the case of geography teachers in the Cape Education Department. In their attitudes and practice, probationers and teachers are closer to each other than are qualified students and probationers. This implies that the attitudes and practice of geography teacher will undergo most change during the probationary year, a finding which corresponds with the socialization process presented in Chapter 3.

8.1.4.1 Attitudes regarding geography education and practice (Q.26 -50).

Some real differences between probationer and teacher responses do appear in their respective attitudes towards the need for the subject to encourage a wonder of creation (Q.28), dealing critically with political ideals as they pertain to spatial patterns and organisation (Q.31), supplying pupils with facts about the world they live in

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,31	31	*0,07*	61	0,50	91	0,72
2	0,71	32	0,41	62	0,47	92	0,65
3	0,47	33	*0,00*	63	*0,03*	93	0,73
4	0,48	34	0,65	64	0,35	94	*0,03*
5	----	35	0,28	65	0,10	95	*0,06*
6	0,47	36	0,43	66	0,34	96	0,32
7	*0,00*	37	0,92	67	0,50	97	*0,00*
8	0,23	38	0,91	68	0,74	98	0,88
9	0,74	39	*0,00*	69	0,52	99	0,20
10	0,77	40	*0,01*	70	0,47	100	0,16
11	0,72	41	0,61	71	0,36	101	*0,08*
12	0,37	42	0,94	72	0,99	102	0,63
13	0,15	43	0,90	73	0,97	103	0,56
14	0,83	44	0,89	74	0,26	104	0,43
15	0,47	45	0,79	75	0,54	105	0,21
16	*0,07*	46	0,66	76	0,62	106	*0,08*
17	0,19	47	0,14	77	*0,07*	107	*0,03*
18	0,98	48	0,11	78	*0,08*	108	0,17
19	0,27	49	0,16	79	0,80	109	*0,05*
20	0,57	50	0,37	80	0,40	110	0,57
21	0,32	51	0,26	81	0,96	111	0,43
22	0,89	52	0,57	82	0,95	112	0,52
23	0,97	53	0,87	83	0,29	113	0,69
24	0,42	54	0,59	84	0,86	114	*0,04*
25	0,48	55	0,77	85	0,10	115	0,83
26	0,28	56	0,58	86	0,12	116	0,68
27	0,12	57	0,35	87	0,64	117	0,83
28	*0,05*	58	0,63	88	0,26	118	0,10
29	0,85	59	0,98	89	*0,07*		
30	0,26	60	*0,09*	90	0,79		

Probationers n = 17
Teachers n = 85

TABLE 8.6. PROBATIONERS AND TEACHERS: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

(Q.33), developing an appreciation of the environment (Q.39) and encouraging environmental awareness and conservation ethics (Q.40). In all instances, teachers respond more positively towards these items than probationers. It follows therefore, that teachers are more third phase in their attitudes towards geography education than their probationary colleagues. In terms of content though, they feel more strongly that geography education should be factually based (Q.33). Perhaps more important, however, is the fact that the attitudes of probationers and teachers towards teaching practice issues show no real differences ((Qs.46, 47, 48, 49 and 50). This suggests that although probationer and teacher attitudes may differ in certain respects, the influence of classroom experience determines that practice remains the same.

8.1.4.2 Influences upon teaching style (Q.65 - 76).

The above contention (section 8.1.4.1), is supported by the fact that no real differences emerge between probationer and teacher responses in this section. Clearly the pressures of school experience upon probationers and teachers cause them to adopt a similar approach when teaching the subject.

8.1.4.3 Use of teaching methodologies (Q.77 - 97).

The findings thus far suggest that few, if any, differences should be found between probationer and teacher use of teaching methodologies. Real differences between groups do, however, appear in relation to their use of photographs (Q.77), pictures (Q.78), passages from books (Q.89), discussion and reading of duplicated notes (Q.94), computers (Q.95), and journal and magazine articles (Q.97). It appears that :-

(i) teachers use photographs, pictures, passages from books, journal and magazine articles more frequently than do their probationer colleagues.

(ii) probationers use discussion and reading of duplicated notes, and computers, more frequently than teachers.

Although the above differences exist they are largely related to the use of aids rather than techniques. This would suggest that probationer and teacher approaches to geography education are similar, *viz.*, teacher-centred in nature. This contention is supported by comparing mean responses for items reflecting the use of pupil- and teacher-centred approaches (Table 8.7).

Methodologies	Probationer ($\bar{x}$)	Teacher ($\bar{x}$)
Textbooks (Q.86)	4,1	4,2
Talk and chalk (Q.91)	4,0	4,0
Worksheets:		
(reinforcement) (Q.82)	3,7	3,7
(discovery method) (Q.83)	3,0	3,2
Case studies (Q.79)	2,7	2,7
Fieldwork (Q.81)	2,3	2,6
Geographical games (Q.90)	2,1	2,0

TABLE 8.7 Probationer/teacher use of selected methodologies.

The actual scores clearly indicate that teacher-centred techniques are frequently used by both groups. The closeness of probationer and teacher values for each methodology illustrates the fact that no real differences exist between probationer and teacher use of methodologies.

8.1.4.4 Idealised use of teaching methodologies (Q.98 - 118).

In this section Ho is rejected in 24% of cases. Items where differences exist concern the idealised use of mapwork (Q.101), overhead projector (Q.106), textbook (Q.107), slides (Q.109), and video films (Q.114). Responses indicate that teachers view the ideal use of the above items more positively than probationers except in the case of slides, where the converse is true. Again the real differences identified relate to the use of aids rather than techniques. However, both groups indicate that their ideal use of selected methodologies (Table 8.8) is less teacher-centred

in approach than their actual use of these methodologies (Section 8.1.4.3). This is evident from the mean scores and the order of the means in Tables 8.7 and 8.8.

Methodologies	Probationer ($\bar{x}$)	Teacher ($\bar{x}$)
Worksheets:		
(Reinforcement) (Q.103)	4,2	4,1
(Discovery method)(Q.104)	4,0	4,0
Fieldwork (Q.102)	3,8	3,8
Talk and chalk (Q.112)	3,8	3,8
Textbooks (Q.107)	3,6	3,8
Case studies (Q.100)	3,5	3,6
Geographical games(Q.111)	3,4	3,1

TABLE 8.8 Probationer/teacher idealised use of selected methodologies.

8.1.5 Differences in response between teachers, senior teachers and heads of department.

As far as can be ascertained, research into the socialization of teachers has not attempted to identify differences between teacher attitudes and practice in relation to school post. It is generally assumed that teachers, as a group, exhibit similar attitudes and practice regardless of their position in the school hierarchy. In order to establish whether this is the case with geographers in the Cape Education Department, teacher, senior teacher and head of department responses were analysed.

8.1.5.1 Teachers and senior teachers.

Table 8.9 presents p values showing that differences between teacher and senior teacher responses appear to be the result of chance. Overall, as Ho is rejected in only 18% of cases this indicates that teachers and senior teachers hold largely similar views regarding attitudes and practice. Where differences are found they generally concern perceptions of influences upon teaching style (Ho is rejected in 25% of cases). Items include teachers admired when individuals were pupils (Q.65) and ideas gained during pre-service training (Q.66). Teachers are more influenced in their choice of teaching style by their experiences as

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	*0,00*	31	0,39	61	*0,00*	91	*0,02*
2	0,95	32	0,21	62	0,27	92	0,84
3	0,98	33	0,79	63	0,13	93	0,77
4	*0,00*	34	0,35	64	0,14	94	0,33
5	----	35	*0,08*	65	*0,01*	95	*0,08*
6	*0,09*	36	0,76	66	*0,00*	96	0,01
7	0,83	37	0,29	67	0,10	97	*0,00*
8	0,85	38	0,10	68	0,93	98	0,56
9	*0,06*	39	0,13	69	0,34	99	0,13
10	0,66	40	0,28	70	0,37	100	*0,01*
11	*0,08*	41	*0,02*	71	0,40	101	0,98
12	0,18	42	*0,05*	72	0,20	102	*0,09*
13	*0,06*	43	0,21	73	*0,08*	103	0,55
14	0,69	44	0,70	74	0,68	104	0,58
15	0,37	45	0,83	75	0,73	105	*0,03*
16	0,99	46	0,61	76	0,58	106	0,23
17	0,23	47	0,51	77	0,19	107	0,39
18	0,24	48	0,40	78	0,63	108	0,30
19	*0,05*	49	0,89	79	0,15	109	0,48
20	0,11	50	0,39	80	0,17	110	0,17
21	0,28	51	0,11	81	0,41	111	*0,08*
22	*0,01*	52	0,36	82	0,49	112	0,15
23	0,29	53	0,49	83	0,44	113	0,85
24	0,74	54	0,39	84	0,56	114	0,82
25	0,21	55	0,68	85	0,59	115	0,86
26	0,10	56	*0,00*	86	0,79	116	0,52
27	0,98	57	0,26	87	0,94	117	0,22
28	0,97	58	0,19	88	0,92	118	0,70
29	0,99	59	0,16	89	0,26		
30	0,35	60	*0,00*	90	0,26		

Teachers n = 85
Senior teachers n = 42

TABLE 8.9. TEACHERS AND SENIOR TEACHERS: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

pupils and by pre-service training, than are senior teachers. A possibly significant difference appears in relation to the influence of instruction given by subject heads (Q.73) where senior teachers are more positive. This is easily explained as senior teachers are generally subject heads in their schools and can therefore be expected to regard their input as influential.

Two important differences appear as individuals move from teacher to senior teacher. These involve the influence of training and past role models on the choice of teaching style. It is postulated that when individuals take charge of geography education within a school (senior teacher) they become increasingly independent and rely more on their own experience than that of others. This experience, it should be noted, relates largely to the classroom behaviour of pupils and their response to different teaching styles, the availability of equipment and teaching materials (such as prepared worksheets), and the material contained in textbooks (top three items according to means for both groups). These influences, combined with the lesser one of past training, suggest that senior teachers will be more teacher-centred in their approach to geography education than their teacher colleagues. This is regrettable as senior teachers influence the classroom decision-making of their colleagues due to the role they play in the merit promotion system (section 4.2.5).

Real differences between teacher and senior teacher attitudes towards geography education and practice only appear in approximately 10% of the total items in this section. They concern attitudes towards increasing the amount of regional geography (Q.35) and mapwork (Q.41) in the school syllabus, and the need for syllabus change in school geography (Q.42). Although teachers, on average, agree more strongly with the above statements than do senior teachers, this does not indicate a trend which would clearly differentiate between teacher and senior teacher approaches towards geography education.

Neither significant nor possibly significant differences are found in relation to attitudes towards teaching practice. It is not surprising, therefore, to find that teacher and senior teacher use of teaching methodologies is similar (Ho is rejected in 19% of cases in this section). Except for the use of talk and chalk (Q.91), items showing real differences concern the use of aids such as computers (Q.95), newspapers (Q.96), journal and magazine articles (Q.97). Teachers use newspaper, journal and magazine articles more frequently than do their senior colleagues, which suggests that they are more interested in updating their course content and making it relevant for their pupils than are their senior collegues. Although senior teachers generally use computers more frequently than their teacher colleagues, the amount of use is very low (mean = 1,25 where 1 = never use the aid or technique). Senior teachers use talk and chalk (Q.91) significantly more than teachers. This would indicate that senior teachers are less third phase in their use of teaching methodologies than are teachers.

Real differences between group responses towards the idealised use of methodologies (Ho is rejected in 19% of cases) concern the use of case studies (Q.100), fieldwork (Q.102), sample table (Q.105) and geographical games (Q.111). Response histograms for these items indicate that in all the above cases teachers would prefer to use these methodologies more frequently than would senior teachers. This finding clearly supports the earlier contention that senior teachers are less pupil-centred in their approach to geography education than teachers.

8.1.5.2 Senior teachers and heads of department.

Senior geography teachers are generally only in charge of the geography education programmes in secondary schools, while heads of department (HODs) are involved with general school administration relating to the functioning of a number of different subjects, one of which may be geography. Both positions require the persons occupying

ITEM	P	ITEM	P	ITEM	P	ITEM	P
1	0,29	31	0,62	61	0,33	91	0,39
2	0,21	32	0,43	62	0,64	92	*0,05*
3	*0,08*	33	0,11	63	*0,01*	93	0,27
4	*0,00*	34	0,16	64	0,27	94	0,67
5	----	35	*0,09*	65	0,11	95	0,62
6	*0,08*	36	0,70	66	0,29	96	0,73
7	*0,05*	37	0,77	67	*0,09*	97	0,39
8	0,36	38	*0,02*	68	0,75	98	0,98
9	0,83	39	0,89	69	0,24	99	0,65
10	0,65	40	0,54	70	0,97	100	0,35
11	0,55	41	0,95	71	0,41	101	0,37
12	*0,04*	42	0,27	72	0,78	102	*0,09*
13	0,68	43	0,78	73	*0,02*	103	0,74
14	0,79	44	0,76	74	0,83	104	0,48
15	0,48	45	0,39	75	0,33	105	0,52
16	0,61	46	0,91	76	0,67	106	*0,02*
17	0,16	47	0,47	77	0,59	107	0,14
18	0,96	48	0,41	78	0,51	108	0,62
19	0,43	49	0,85	79	*0,06*	109	0,33
20	0,47	50	0,63	80	0,33	110	0,78
21	0,39	51	0,54	81	0,22	111	0,43
22	*0,00*	52	0,28	82	0,68	112	0,63
23	0,73	53	0,33	83	0,64	113	0,95
24	0,50	54	0,66	84	*0,05*	114	0,38
25	*0,07*	55	0,45	85	0,40	115	0,38
26	0,70	56	0,43	86	0,66	116	0,41
27	0,88	57	0,26	87	0,42	117	0,29
28	0,38	58	0,89	88	0,17	118	0,76
29	0,98	59	0,45	89	0,68		
30	0,30	60	0,92	90	0,24		

Senior teachers n = 42
Heads of department n = 23

TABLE 8.10. SENIOR TEACHERS AND HEADS OF DEPARTMENT: PROBABILITY OF DIFFERENCES REFLECTING CHANCE VARIATION BETWEEN GROUPS.

them to carry responsibility (although at different levels) for the standard and quality of geography education received by pupils. Accordingly, few differences in group attitudes and practice are to be expected, as pressures upon individuals should be similar. This is confirmed by the fact that the responses of senior teachers and HODs only allow rejection of Ho in 9% of cases (Table 8.10).

There are few real differences in attitude towards geography education and practice (Ho is rejected in 8% of cases) and there is a real possibility that these differences are spurious (probability of type 1 error is high). The only significant difference is found with regard to the question of whether geography syllabuses should be designed to facilitate the social awareness of pupils (Q.38). In this respect HODs are more favourably disposed towards syllabuses designed to facilitate social awareness than are senior teachers.

No attitude differences are found between groups in relation to teaching practice, but real differences are found in 14% of cases between senior teachers and HODs use of teaching methodologies. Possibly significant differences are seen in relation to the use of case studies (Q.79) and sample tables (Q.84), and a significant difference in relation to sound tapes (Q.92). HODs tend to use the above aids and techniques more frequently than senior teachers which suggests that they are more pupil-centred in their practice than senior teachers.

Methodologies	Senior ($\bar{x}$)	H.O.D. ($\bar{x}$)
Talk and chalk (Q.91)	4,2	4,2
Textbook (Q.86)	4,1	4,2
Worksheets:		
(reinforcement) (Q.82)	3,6	3,5
(discovery method) (Q.83)	3,1	3,1
Case studies (Q.79)	2,7	3,1
Fieldwork (Q.81)	2,7	3,0
Geographical games (Q.90)	1,8	2,0

TABLE 8.11 Senior teacher/HOD use of selected methodologies.

Mean scores (Table 8.11) indicate that there is little, if any, difference between senior teacher and HOD use of teacher-centred methodologies although slight differences are found in relation to the average frequency with which these groups use pupil-centred techniques *viz.*, case studies, fieldwork and geographical games. Regarding the ideal use of teaching methodologies Ho is accepted in 95% of cases and both groups retain a teacher-centred ideal. When mean scores are considered (Table 8.12), and compared with those in Table 8.11, a slight difference is seen between actual and idealised methodolgy use. The frequency with which they feel talk and chalk and textbooks should be used drops for both groups, while the ideal use of geographical games and case studies increases dramatically.

Methodologies	Senior ($\bar{x}$)	H.O.D. ($\bar{x}$)
Talk and chalk (Q.112)	4,0	4,0
Textbook (Q.107)	4,0	3,9
Worksheets:		
(reinforcement) (Q.103)	4,0	4,0
(discovery method) (Q.104)	3,8	3,9
Fieldwork (Q.102)	3,6	3,7
Case studies (Q.100)	3,4	3,7
Geographical games (Q.111)	2,9	2,8

TABLE 8.12 Senior teacher/HOD idealised use of selected methodologies.

8.1.6 Summary: Differences in teacher attitudes and practice according to position in the career hierarchy.

The differences between student attitudes towards geography education and practice at the beginning and end of their HDE course would indicate an increase in the acceptance of third phase aims and practice as training progresses. This finding supports the general theory regarding the influence of pre-service training upon student attitudes (conservative to liberal transition) (Denscombe, 1982; Hanson and Herrington, 1976; Lacey, 1977).

Differences between qualified student and probationer responses, however, support the theory that attitudes and

practice developed during pre-service training are transitory in nature. In particular, marked changes in the perception of the idealised use of pupil-centred techniques in geography education are noted. Third phase attitudes of qualified students rapidly become second phase in nature during the first few months of school experience. Reasons for the changes which occur are explained by the short term impact of training experience when compared to school experience. In this regard, factors playing a major role in changing probationer attitudes towards teaching practice are the classroom behaviour of pupils, availability of prepared teaching material and equipment, textbooks and examinations.

Comparing changes in attitudes and practice of beginning students with that of probationers, it was found that beginning students are more disposed towards the use of pupil-centred practice than probationers. This finding clearly indicates that the assumption that probationary teachers revert to the attitudes they held before their training began, does not appear to occur in the case of geography teachers in the Cape Education Department. Instead, findings suggest that probationers are less predisposed to adopt third phase practice than beginning students. As such, the effect of school experience as teacher is clearly more important than experience as pupil, in the process of professional socialization (section 3.1).

Teachers hold a more positive approach towards third phase geography education aims than probationers. Attitudes towards practice, as well as the actual and idealised methodology use of the two groups are similar. Both groups respond in a manner which indicates a general teacher-centred approach towards geography practice.

Teacher and senior teacher attitudes towards geography education and practice and their approach towards the subject are similar. It is therefore surprising to find that they differ in their actual and idealised methodology use. Teachers, in general, are less teacher-centred in their practice and approach than their senior colleagues.

This difference, it is postulated, arises from the fact that senior teachers rely heavily on their own experience when choosing their style of teaching. In this regard the 'liberal' influence of training is greatly weakened as the individual becomes accountable for the geography education programme within a school. Increased responsibility brings with it a greater tendency to adopt conservative attitudes because of the emphasis placed upon examination performance. It is indeed unfortunate that when individuals finally have the opportunity to implement a geography education programme in a school, they should adopt teaching practice which is less third phase in its approach than that used by their junior colleagues.

Generally, senior teachers and HODs exhibit similar attitudes towards, and practice in, geography education. This supports the contention that the school experience of senior teachers and HODs is much the same probably due to a similarity in job responsibility. Although responses in relation to methodology use suggest that senior teachers are more teacher-centred in their approach than their HOD colleagues, both groups apparently realise that pupil-centred methodologies should be used more often than they are, while preferring the use of teacher- rather than pupil-centred methodologies.

The statistical analysis of differences in the attitudes and practice of geographers as they progress from student to experienced teacher, clearly indicates that school experience plays a dominant role in the process of professional socialization. Results show that it is during the probationary year that teachers' attitudes and practice change most significantly. Although statistical analysis makes it possible to identify attitude and practice differences it does not establish the process which operates to generate such changes. It follows, therefore, that an investigation of probationer school experience would yield insight into the relative impact of school-based factors determining geography teacher attitudes and practice in the Cape Education Department.

8.2 ANALYSIS OF PROBATIONER DIARIES.

The use of case studies describing probationary teachers' subjective experience of the school environment complements the statistical findings presented previously and adds to an understanding of those influences causing marked changes in attitudes towards, and practice in, geography education. Although the nature of case studies is such that no single experience is representative in any statistical sense, together they provide a picture of common experiences and perceptions. In this instance seven individuals participated in the case study research. All had completed a post-graduate higher diploma in education (HDE) at the University of Cape Town and started their probationary year as geography teachers at the beginning of 1985.

Although four participants kept diaries throughout the year, one participant was only able to keep a diary for the first three months. Others found it difficult to find time to write reports on a regular basis. Two probationers used the letter outlining the research aims as a basis for comment regarding their first year's teaching experiences rather than producing a diary. The one comment took the form of a written report, the other a tape recording which runs for one and a half hours. Although formats differ, the participants' observations form a valuable record of the varying experiences encountered by probationers in Cape Education Department secondary schools. Analysis of their statements allows conclusions to be drawn regarding the general effect of school experience upon individuals. It also provides some understanding of the pressures leading to the adoption of conservative teaching practices identified previously in the statistical analysis.

Although case studies are not intended to be representative of any statistical population, the personal and school characteristics of participants (Table 8.13) are such that they are typical of teachers described in Chapter 6. Their diaries and reports should, therefore, reflect varying experiences of probationers in their first year of teaching.

Two points should be noted however; that the probationers are predominantly English-speaking and that over half of them taught geography up to standard 10 level. The latter is unusual as probationers do not normally teach matriculation classes. Two probationers have Honours degrees in geography and a third was the only geography teacher at the school.

ITEMS	PROBATIONERS						
	A	B	C	D	E	F	G
Highest std. taught	10	10	10	7	8	10	7
Years of training	5	5	4	4	4	4	4
No. of geog. colleagues	1	2	0	3	4	3	0
School location	Metro area	Small town	Metro area	Small town	Metro area	Metro area	Metro area
Gender	M	F	F	M	F	M	F
Language medium	Eng	Eng	Eng	Eng	Eng	Afr	Eng
School type	Boys High	Co-ed	Girls High	Boys High	Co-ed	Co-ed	Girls High

TABLE 8.13 Personal details of case study participants.

Probationer diaries and reports were analysed by focusing upon and extracting comments relating to influences upon attitudes and practice. These statements are collated under two major headings, *viz.*, those which contain general comments on school experience and those which elaborate on influences on teaching practice. These are presented in Appendix J which represents the overall experiences of the seven geography probationers who contributed to this study.

8.2.1 General comments on school experience.

The case study participants could all be classified as enthusiastic individuals with a love of geography and a wish to communicate this to pupils. This is reflected in their willingness to involve themselves in the case study. Although idealistic they were not naïve about the problems awaiting them in the school environment and as students they were keen to prepare themselves for their teaching career. It would be true to say that the individuals were highly

motivated and committed to a career as a geography teacher. Once participants entered the school environment, however, they struggled to come to terms with undisciplined pupils, heavy work loads and administrative requirements. The outcome of school experience in the first year was generally characterised by a state of emotional and physical exhaustion. During this process probationers gradually devised, through trial and error, strategies designed to enable them to cope with school experience.

All the case study participants completed their probationary year with a hope that the following year would be more rewarding and less emotionally and physically exhausting. They were generally philosophical about their probationary experiences and hoped to build upon them in the following years. It is interesting to note that all seven participants are still teaching (even the two who reported very negative feelings about their first year experience) and all report that their second year as teachers is proving to be far more enjoyable and rewarding.

Initial statements reflect general apprehension regarding the onset of teaching. One participant records that

> *"I feel overwhelmed by the amount of responsibility, the paper work and the administration that has to be dealt with before even stepping into the classroom! It makes me very nervous for teaching."*

In fact it did not take long for probationers to become confused and demoralised by the task facing them. They comment that:

> *"The first week of real teaching has been rather depressing. All my thoughts about what I had hoped to do seem to have gone by the way - what is more demoralising is that it is only after one week."*

"I feel tired and very confused - there is so much to be done and many other very busy people who say I must just ask, but I don't feel I can approach them."

"I have been feeling so mixed up and confused this week. Every time I walk into the staff room somebody asks me to fill in this or that, complete this - forgot to fill in your dates - bits and pieces of silly admin. - its so annoying."

As a result of initial school experience, and in particular the related tasks of teaching and organising pupils, individuals found that they rapidly became emotionally exhausted. Comments such as those below reflect the general feelings of participants in their first term.

"Its emotionally exhausting and its not fair on those at home either."

"I think it is most unfair that I leave school most days feeling angry and depressed."

"I don't really think teaching is at all a rewarding career."

Although these statements reveal that emotional turmoil is very much a part of the initial probationary experience, individuals become more positive in their outlook as time progresses. Comments such as "*Well, I seem to have more confidence in myself and am starting to prepare a group of lessons at a time*" reflect a reasonably positive outlook.

In addition to the emotional stress, probationers mention without fail the effect of increasing tiredness upon their approach to teaching. In particular, lesson preparation suffers as individuals become less motivated as the term progresses. One probationer comments that "*I feel tired and sometimes don't feel like making the effort to prepare properly*", while another remarks that "*I could improve my lessons but am basically not interested.*"

Heavy teaching loads (one individual reports that he only had three free periods per week) and extra-mural commitments lead to resentment on the part of probationers who feel that the school system works against the preparation of pupil-centred lessons. Thus individuals remark that:-

"I find that I go through stages of being very rebellious and then I don't want to prepare. I start feeling rebellious when there are so many things to do that my social life suffers i.e., when I have to work late every night and on weekends."

"Right now I am feeling flustered and overwhelmed. I resent working so hard and hate the fact that so much extra time is spent having to attend school functions."

As a result of physical and emotional stress and the subsequent feelings of resentment, probationers report that they desperately need a vacation through statements such as the following :-

"During this three day week I did not work at all! I was tired and needed my holiday. Could not face standing in front of the class so just took them to the library. Thank goodness for school holidays. I am sure teachers need them more than pupils."

"End of term. Thank goodness. This week I have felt as though I wasn't even going to make it. I feel quite worn out and certainly seem to have lost my flame of enthusiasm. Its just one big drag!"

"Its nearing the end of term now and I am quite exhausted. It seems a constant battle just to hold on and I am becoming awfully apathetic. My lessons are very much put together in class and its quite bad."

Vacations are seen as rejuvenating periods which play a vital role in restoring probationers' mental and physical

energy. The following statements reflect the feeling of relief that accompanies the onset of a holiday :-

> *"Could even get up this morning because I knew I would not be teaching. Feel like giving up at this stage."*

> *"Well I've no complaints. Its the beginning of a three week break and suddenly I feel I'm going to make it. What an incredible feeling of freedom."*

If the vacations are used for the preparation of new work or lesson consolidation, then the effects of not having had a break from school work are summed up by one probationer who records that:-

> *"I find if I don't have a proper holiday then I am not as effective as I would like to be. The results of not having a proper holiday has been that I tend to live from day to day. Holidays for me are vital and I feel drained at the moment."*

Even as the year progresses some probationers find that they never really get on top of their teaching and they report that "*I find I am less concerned about the class as time goes on*" and "*Not much has changed and I am beginning to feel lazy and quite uninterested*". With time probationers learn the 'tricks of the trade', but this does not necessarily improve their teaching practice. One probationer comments that :-

> *"I am quite good at taking short cuts now, but its not doing my lessons any good. Because I am always so tired I try to work in class and get the kids to do something while I prepare lessons for the next day. Then its pretty slapdash and I have to make a lot of notes as the textbooks are so bad."*

Not all individuals, however, find that their teaching does not improve with time. Some report that after two terms of teaching they start to relax and come to terms with school

experience. These individuals, although still employing a largely directive approach, start to review their use of methodologies and attempt the occasional pupil-centred lesson. The following quotes reflect this process :-

"I am becoming freer in my approach towards teaching and towards the pupils. I am learning to trust the pupils more with achieving their full capabilities and I am giving them more freedom to express themselves, to teach each other, to think of alternatives that I haven't thought of etc."

"As I relax I am enjoying it more although I also realise that there is a tendency to slack off on preparation and methods - for at least the first half of the year each lesson made me incredibly tense. I was as nervous for each lesson as for crit lessons (its amazing I didn't get an ulcer). Although I relaxed slightly once the lesson was under way, I always felt as though the pupils were examining my teaching very critically. I was quite sure they were noting mistakes in my teaching methods and weaknesses in my presentation of the work etc. Whether they were or not I do not know. It could possibly have been that I was very critical of myself and aware of everything that I was doing and continually testing it against the ideal theory I learned during my training. It could also have been that I was over sensitive to any reaction from the pupils."

"I am trying to have less teaching by me and give the pupils more worksheets, essays and self-study."

Amongst the more pupil-centred approaches used was fieldwork which most probationers reported using at some stage during the year. Although time-consuming in preparation, fieldwork was well received by pupils and probationers were pleased with their efforts. Comments in this regard include :-

"I found field trips very difficult and time consuming to organise. The ones that I did do, however, were very successful and beneficial and made me motivated towards organising more."

"We had a super field trip today. It started off very well with lots for the pupils to do - their comments were very encouraging. They seemed to enjoy it and were asking questions which proved that they were learning something. Discipline was good and there were no snags."

Although the probationary year was perceived as a difficult period, with hindsight individuals felt it had been a worthwhile experience. The following comments reflect positive perceptions regarding the year's experience :-

"This year I have been over worked and under rewarded - but there have been some most enjoyable moments in all of this."

"My feelings as I look back on the year are that having expected to hate my first year teaching I haven't - on the contrary I have really enjoyed it."

"I am looking forward to my second year because I now have more confidence in my knowledge of content and all the various aspects of teaching and I feel that instead of spending time in familiarising myself with content of lessons and presentation of content, I will be able to spend more on preparing different methods of teaching and try to find the most appropriate method for particular content."

"I enjoy my teaching experience now and would not change it for anything else in the world, but I will not do it for ever and ever. I hope to move up the ladder and thus away from classroom teaching."

Two probationers were, however, less enchanted as they looked back over their past experiences. They report that:-

> *"My first year has been one of battling to keep above water."*

> *"To sum up - what are my feelings about teaching? At this stage I want OUT!! My emotions are like a yo-yo and I find it difficult to maintain a normal state of equilibrium. I know I am not the only one who feels this - all my first year colleagues feel the same. It is more a battle with one's emotions than anything else, i.e., up one day, down the next."*

These comments above may reflect personal unsuitability for teaching or a particularly difficult first year of teaching experience. One probationer, however, remarked :-

> *"I have been fortunate in being at a school where we are encouraged to try new ideas, we are given responsibility and freedom and those in authority trust us to be professional. I have learned a lot and it has encouraged me to expand my ideas and to use my initiative."*

8.2.2 Influences on teaching practice.

Probationers frequently commented in their diaries on the effect of training and organisational elements upon their teaching practice choice. It is clear that the influence of training and organisational elements encourage the use of different teaching practice. Probationers solve the conflict by satisficing in their classroom decision-making, resulting in the overall choice of a teacher-centred approach towards practice. This finding supports the ideas of Mardle and Walker (1979) discussed in section 3.2.

Probationer statements regarding influences upon their classroom decision-making correspond with those highlighted in Chapter 4. Statements regarding influences upon practice

are presented in order of their perceived importance as indicated previously (Table 8.3).

8.2.2.1 Pupils.

Probationer statements reinforce the fact that pupils play the most important role in the determination of their teaching practice. The intellectual ability of a class (whether it is streamed or not) and in particular the behaviour of pupils, are frequently mentioned as reasons for adopting a teacher-centred, authoritarian approach in the classroom. Probationers face serious challenges to their authority by pupils. This is reflected in the following statements :-

"Disciplining the rowdy elements absorbs much of your time. Your teaching methods and attitude becomes very authoritarian simply because it has to. Any weakness like giving group work or individual work is a chance to 'jack about'. "

"As for the girls, I am getting even better at being hard, cruel and strict. I hate it and myself for it because it is so against what I want to be like. But it seems like I have no alternative."

"I am actually being quite fierce and don't feel that happy about it but I refuse to feel like I have spent a term in a tumble drier again."

"At this stage I don't feel confident enough to let pupils take over as the class has an element of 'rugger-bugger', macho types who are trying to catch me out and are testing me regarding my standpoints with regard to discipline. It is for this reason also that I don't want to have too much discussion in class. I need to give them work that will keep them busy so that I can regain my foothold and strength in class. I have been relying heavily on worksheets."

"The girls are very rude and sometimes say the most cutting things. As a teacher I must learn to cope with this. They haven't even noticed the trouble I went to to decorate the classroom. What an apathetic bunch."

From the above statements it is clear that discipline problems are usually counteracted by the use of teaching practice which is planned to make lessons as boring as possible by involving pupils in 'busy work' such as copying notes. In this way teaching practice is used to punish or reward classes according to their behaviour. The following statements support this contention :-

"I am starting to make a breakthrough. I have ignored the impossible kids the whole week and every time they talk I write loads of notes on the board which they have to copy down."

"They have given me nothing this year - so from now on I am producing the material but no further interesting lessons - no more involvement - no more old exam papers etc."

"My emotions sure do fluctuate! Two weeks ago I was hating geography teaching - feeling thoroughly unsure about the content and having many discipline problems. The discipline problems seem to drain one of all one's energy so that eventually one tends to say 'oh, what the hell, why bother?' That attitude keeps one going but lessons lose their excitement. Things are, however, much better now. Although my lessons have resorted to the old conventional type in an effort to survive, I am feeling more confident about the content, the speed at which to move and also discipline."

While most probationers would seem to be unconscious of the fact that they are using teaching methodologies to punish pupils for bad behaviour, some are not. One individual

reports in detail how he varies his methods depending on the behaviour of the class. When he uses boring, authoritarian methods he reports that the class is aware that they are being punished.

It becomes clear, therefore, that the choice of teaching practice is determined largely as a result of pupil-teacher interaction rather than as a response to the educational aims of the syllabus. Probationer diaries indicate that the outcome of pupil-teacher interaction is the predominant use of teacher-centred mehtodologies. To punish pupils, or to maintain discipline, teacher-centred methodologies involving the learning or copying of content knowledge are favoured. When pupils are rewarded, lecture/discussion types of lessons are used where pupils are generally entertained by the teacher. This helps explain teacher perceptions of the ideal teaching practice (section 6.3.2).

Probationers are seen to become disillusioned with the effectiveness of pupil-centred methodologies in terms of preparing pupils for examinations. One reports that :-

> *"I thought that by involving pupils in role playing that they would never forget it, but I found that it does not work like this. Pupils enjoy lessons like this but during revision later on, it becomes clear that they have not grasped the concepts involved. I don't know how I am going to handle this. I feel that it is best to use repetition rather than fantastic teaching methods."*

In addition, the pupils themselves are sometimes negative about participating in pupil-centred lessons. Faced with this reaction most probationers indicate a reluctance to proceed with this approach and adopt authoritatian practices. Comments reflecting this process include :-

> *"The girls just talk, as they feel like, and seem to believe that the teachers have to stick all the*

knowledge in their heads for them. They are totally incapable of doing anything for themselves."

"I have given up on group work and problem-solving teaching methods because no matter how exciting I try to make it they find it a big drag."

"I arranged to go out to Escom on Wednesday - they were all keen, but the day before not one person admitted to saying that they would come so I had to cancel it. I rearranged the outing due to insistence - guess what, no one turned up. I actually sometimes hate teaching."

Overall then, the effect of pupil behaviour upon probationers is such that they quickly forget and/or become disillusioned with the ideals and attitudes they developed during training and revert to the use of a directive, teacher-centred approach which is perceived as being better suited to the practicalities of classroom teaching.

8.2.2.2 Equipment/prepared material.

Probationer reports indicate a lack of audio-visual apparatus within their schools which suggests that in this respect little has changed since 1966 (Hattingh, 1971; Ledger, 1978). As suggested in section 4.2.4 this may predispose individuals to use teacher-centred methodologies.

Statements such as "*We have no overhead projectors so I have to use the blackboard extensively*", reflect the difficulties faced by probationers trained to use modern apparatus. A shortage of overhead projectors in schools for example, results in individuals preparing duplicated notes for their pupils as blackboard work is generally perceived as messy and time-consuming. If many of the teachers in a school prepare notes for their pupils, duplicating and photocopying machines are put under pressure and measures are imposed to regulate their use. The effect of this is described by one probationer who mentions that :-

"Access to hardware also determines much of one's methodology. For example, it takes two days for any roneoing or photostating to be done. Thus if you want to run off a worksheet it must be prepared three days in advance. I am rarely that organised."

It is interesting, however, that although equipment and prepared materials are ranked as the second most important influence upon the adoption of teaching style (Table 8.3), diary reports do not really reflect this level of importance. Although probationers mention a lack of equipment as influencing their choice of teaching practice, it is particularily noticeable that no mention is made of a lack of prepared material. The reason for this is that teacher content needs are very well catered for by textbooks. It is therefore contended that the introduction of pupil-centred material into the schools could play an important role in moving geography education towards the achievement of third phase aims.

8.2.2.3 Textbooks.

Due to problems involved with lack of equipment and prepared material teachers usually resort to extensive use of textbooks which , in turn, form the basis of pupil notes. Dependence on textbooks inevitably results in geography lessons becoming teacher-centred with the emphasis laid on the acquisition of content knowledge.

Generally probationers rely heavily on textbooks to guide them in terms of the content they need to teach. This view is supported by an individual's comment that "*textbooks help me to determine the content level I present to my pupils*". The dependence on textbooks is also reflected in the statement :-

"This week I finished the geomorphology section, but did not know what to do next. I felt like giving up the teaching part until the books arrived."

This problem arose because 1985 saw the implementation of a new syllabus in standards 6 and 7 and textbooks for these levels only became available in the second term. The effect of the arrival of new textbooks on pupils and probationers is clear from the comment:-

> *"This term started off well with the arrival of the new standard 6 geography books. I felt that the writing load would not be as great and the pupils were very keen to use the books - even for homework. I was more interested in the lesson and prepared my lessons properly, giving them some drawings to do for homework."*

Extensive use of textbooks which are generally content orientated (section 4.2.3) helps to explain why school geography in the Cape Education Department is second rather than third phase in nature. This finding also suggests that if textbooks could be made less content-dominated and changed to encourage a pupil-centred approach towards the subject, they could play an important role in moving geography education towards the achievement of third phase aims.

8.2.2.4 Examinations.

Probationers indicate that class tests and examinations play an important role in influencing their teaching practice. Comments reflect the fact that teaching practice decision-making is often influenced by the need to ensure that pupils achieve good marks. This supports the findings in section 4.2.2. Interestingly, examinations are also seen to have an impact upon probationer and pupil perceptions of self-esteem.

Examinations determine the content to be taught and the teaching practice used in the classroom. This is particularily so in the case of individuals who teach standard 10 pupils. Probationers indicate that examinations require pupils to reproduce geography content and thus a

teacher-centred approach is generally favoured. Thus they report that :-

> *"Examinations, and the pressure on a teacher to achieve good examination results, means that one has to spend a lot of time simply giving information in a way that can be regurgitated at exams. Another teacher who spent her time telling the class which notes to underline in the textbook achieved much the same marks as my kids. This is very discouraging as it takes much more work to prepare all this pupil-centred hogwash."*

> *"I teach for exams to a certain extent but they are not the dominant force. Next year, however, I will be teaching higher standards and then I will perhaps be forced to become exam orientated."*

> *"I am finding it very difficult not to let the exams influence my teaching of matrics. I am using past matric papers to structure some of my teaching e.g., I select a few past exam questions and then compile them into a worksheet for the pupils."*

Probationers, colleagues and pupils all too frequently evaluate performance by examination results. This supports the contention that examinations act as a feedback mechanism to teachers and pupils (section 4.2.2). The following comments reveal the effect of pupil results on probationer images of self-worth :-

> *"After marking the exams I was ready to give up."*

> *"I was furious with the standard sixes because it was quite obvious that they had not learned for their test. I felt I had wasted my time teaching them."*

> *"Also, much of one's success as a teacher is measured by examination results. If a child does well he/she*

is clever and hardworking, if he/she does poorly or fails it is because of a poor teacher."

"All the papers have been marked and I must say I feel very proud. My geography class did extremely well. I received many favourable comments from the pupils (I am a good teacher, etc.) which makes me feel good. I realise that pupils often only say that if the results are good."

The above statements reflect the effects of examination results upon probationer motivation. Good results stimulate, and poor results deflate, the individual's self image. This results in a self-reinforcing system where probationers continually try to provide pupils with more and more information which they perceive to be necessary for good examination performance and then attempt to motivate them to learn it.

Examinations are regularly used by probationers to motivate pupils to learn. Enquiring minds, it would seem exist only in the imagination of educational theorists! If all else fails pupils can be forced to learn or be motivated through fear of failing an examination. Remarks reflecting this perception are :-

"The matrics are keen to learn if there is a test ahead of them."

"I test the pupils regularly every Friday. That is the only way they will do any work."

The comments above reinforce the important role played by tests and examinations in determining teacher practice. In this regard it could be expected that if examinations are set in order to reflect a concern with concepts, skills, attitudes and values, it is likely that teacher response would be to adopt third phase teaching practice.

8.2.2.5 Teaching Colleagues.

Statements relating to the influence of colleagues upon probationers' choice of teaching techniques indicate the varying experiences encountered in different schools and support the contentions made in section 4.2.5. While some probationers feel that teaching colleagues have had little effect upon their teaching practice, others report colleagues pressurising them to conform to the use of conservative methods. Statements indicating pressure to adopt teacher-centred practice by teaching colleagues are seen below :-

"My head of department suggested I lecture to the matrics, but I refused to do so."

"My head of department taught the matric class last year and he believes in drilling for the exams. Therefore whenever he gives me advice (on my request) he directs me according to his way of teaching. I don't agree with his technique but I must admit that when I am feeling tired and as though I have got no time, I am tempted to follow his advice - although when it comes to putting it into practice, I feel guilty being lazy and generally don't follow that. When I feel more rested and less pressurised I make an effort to focus on concepts, skills and values."

"There is no doubt it requires effort and discipline to teach using pupil-centred methods as they require a lot of preparation especially if you are feeling tired. The HOD suggests the use of a poor teaching method. It is very tempting to follow his advice because it requires less effort and because it has been condoned by an authority figure."

"The inspector suggested that I give the pupils roneod notes and spend the period teaching them. Frequent tests could ensure that they read the material."

Probationers also report a lack of discussion with colleagues about teaching practice issues. In most cases senior colleagues do not try to help probationers in any way and they are left to struggle on by themselves. When meetings are held they consist largely of discussions regarding examination administration rather than dealing with teaching practice issues. Examples of statements reflecting the above are :-

"Our vice head who has been on my back for the past five weeks, has discovered that it is my first year and that's why I have been asking so many questions. Well things are looking up!"

"There is little or no encouragement for a teacher to teach creatively. All the staff meetings and staff room chatter is aimed at administration and gossip. There is no sharing of teaching methods or resources. When I have offered to share my worksheets etc., other members of staff have received them gratefully, but there has been little reciprocation."

"The senior geography teacher gave me the geography objectives for the school. He didn't ask me for my ideas. We have since had three meetings in a year and these largely concerned the setting of exam papers. These meetings lasted about 15 minutes each. Other than that there was not one time when the senior teacher approached me. There was no sense of guidance at all. The senior teacher's methods consist of talking with pupils and then they summarise sections from the textbook at home. The senior teacher has never seen me teach the whole year."

Obviously, probationers are disappointed by the lack of help given them by their senior colleagues as well as their superiors' choice of teaching methods. This attitude is

summed up by probationers who comment that :-

> *"Having just completed my training I still feel prepared to strive for the ideal and I feel disillusioned that established teachers aren't prepared to."*

> *"The biggest problem I experienced in geography is the lack of communication between teachers."*

Comments relating to the role of senior teachers in influencing probationers use of teacher-centred practice support the findings in section 8.1.5.1 regarding senior teacher attitudes and practice. It is clear, therefore, that the examples set by senior teachers is important in maintaining the second phase nature of teaching practice in the schools.

8.2.2.6 Pre-service training.

Comments on the perceived value of training indicate that probationers are generally happy with their academic preparation but critical of their HDE course. Those having a four year geography degree report that their Honours year was more useful than their HDE course. One probationer expressed it thus:-

> *"I feel that Honours prepared me better for teaching than HDE did because during that year I came to terms with what geography is and why I am teaching it. It helped me establish my aims and objectives in geography education as well as the value of geography as a subject. Also during Honours I became more familiar with the content and I learned skills myself and therefore gained more confidence. I think that having these things established in my mind has given me a more solid backing in my teaching and I don't get so easily swayed by outside influences, e.g., other teachers, syllabus etc."*

University geography training, i.e., in terms of subject approach, is thus obviously helpful to those becoming teachers. The HDE course on the other hand was criticised for not preparing them for the reality of school experience. This is particularly so in the case of preparation for administrative tasks, setting of examination papers and the planning of work schemes. As such it is suggested that pre-service geography methodology training needs to be more practically orientated than at present. As one individual comments :-

> *"I feel that HDE should be 6 months theory and 6 months teaching practice/apprenticeship. This system will give experience in handling administration, e.g., work schemes, exams, as well as becoming more familiar with the school atmosphere and the rate at which work can be covered."*

It should be noted, however, that not all probationers were critical of the HDE course they attended. One probationer reports that :-

> *"My pre-service training prepared me psychologically for first year teaching. It made me aware that the first year will be difficult; don't expect to crack it in the first year; just get through the next year. There were a lot of good ideas I learnt last year and as time allows I will start to incorporate them into my teaching. Some of my lessons are absolute disasters but there are others that I know are good and I know that next year there will be an improvement."*

The above remarks suggest that training does prepare some individuals for the transition shock of school experience. It is clear, however, that the overall feeling of probationers is that HDE courses do not prepare them adequately for the reality of school experience. This finding helps to explain why training has so little impact on teaching practice choice (section 8.1.2.3). Although it

is seen that teacher training develops third phase attitudes towards, and practice in geography education, if these are to survive the first few months of school experience serious attention will have to be given to devising a method whereby teachers are carefully inducted into the school system.

8.2.2.7 In-service courses / geography associations.

Case study participants indicate that they feel the need for in-service training. It is striking, however, that the majority do not receive this type of assistance during their first year of teaching. Generally in-service education courses are attended by senior teachers rather than probationers as the following experience reveals :-

> *"I was really keen to go to the in-service course being held by the Department. I went to the senior teacher, who went to the headmaster to enquire about me going. As the headmaster said only three teachers could go, the senior teacher said that as I was the newest member of staff, I could not go. As a result of them going to the course nothing has changed and no-one has bothered to tell me anything about what occurred. There was no feed-back at all."*

While the value of in-service training upon experienced teachers is often questioned, the effect upon probationer teaching practice seems to be more promising. This is largely due to the fact that individuals in their first year of teaching are insecure and are not yet set in their ways. Thus one probationer who underwent in-service training reports that:-

> *"The E.E.A.S.A. (Environmental Education Association of Southern Africa) conference also served as a type of in-service training course and since then I have used several of the ideas and methods in my teaching. I learned a lot from the conference with regard to using the environment to teach geography and also how*

to teach with few facilities, aids etc. - a facet which I feel our training course neglected."

Generally probationers did not receive any help from geography associations. Some report that there were no branches of any geography association operating in their areas. However, those teaching in the Cape Town metropolitan area, which is served by an active geography teachers' society, largely ignored its activities. Whether this was due to bad publicity, a lack of time to attend or the unsuitable nature of programmes is not known. It would be a valuable exercise to establish why probationers do not avail themselves of the opportunity to attend society meetings.

8.2.2.8 Time pressures.

Time pressures are obviously an area of great concern and have an influence upon the attitudes and practice of all probationers. Findings in this regard are similar to those of teachers (section 6.3.2). A lack of time and the pressure this creates heightens probationer feelings about school experience and is a major factor contributing to the emotional turmoil experienced. From diary entries it is clear that a lack of time causes individuals to satisfice in terms of their teaching practice decision-making (section 3.2). Individuals report that they do not have enough time to prepare lessons adequately due to administrative and sport commitments. A great deal of time is spent in conducting extramural activities, especially at rural schools where sports teams have to travel long distances to play matches. In this regard one probationer comments :-

"I have been put in charge of hockey and with very limited knowledge of the game am expected to umpire first team games, write umpires exams and attend hockey courses. I have to train eleven girls to play hockey before next Saturday as our second team consists of beginners. By the way, I also still have to prepare lessons."

The result of time pressure is that pupil-centred teaching methods are abandoned in favour of teacher-centred ones. Not only do pupil-centred lessons involve relatively more preparation time but they also tend to be time-consuming in terms of conveying geographical content. This is borne out by probationer comments that :-

"Because I have been rushing from day to day I haven't really sat down and thought out what my aims and objectives are for each lesson."

"If only there was more time to devote to preparation - how infinitely better I could prepare."

"I simply do not have the time to plan for discovery method or inductive teaching and because I feel so pressurised, I simply have to get things done - I have to resort to teacher talk."

"I don't seem to have any time to myself. I work until at least 11.30 p.m. every evening preparing lessons and it doesn't seem to make any difference."

Probationers strongly resent the intrusion of lesson preparation and school activities into their social lives. A lack of time available to prepare lessons at school due to work load and extramural duties severely curtails personal social activities. Thus individuals report that :-

"One of the main complaints I have about the teaching profession is that they expect you to produce lessons of high quality but give you no time to prepare them. I am newly married and for instance last night I got home after 5 p.m. (we start at 7.30) and I was exhausted and there was no way that I was going to sit down and prepare. I knew I didn't have enough geography ready for the following day's lessons. I thought, well that's too bad - the class is just going to have to suffer for one day, and so last night I

socialised. About 75% of my weekday evenings this year have been spent preparing lessons."

"I am still very tired and feel it is very unfair that I have so little free time. I have seen my family once since I have been at school and most of my friends even less."

The comments above reveal that the second phase nature of geography education in schools will continue unless serious attention is given to devising a system whereby probationers are eased into the school environment. Teacher trainers and school authorities need to combine in order to ensure that the third phase attitudes towards geography education and practice held by probationers will survive the first year of school experience.

8.3 GEOGRAPHY TEACHER PROFESSIONAL SOCIALIZATION.

The professional socialization of geography teachers in the Cape Education Department conforms with the general trend of teacher socialization outlined previously (section 3.1). One important difference, however, is that probationary teachers are found to hold more conservative attitudes towards geography education and practice than those held by students at the beginning of their HDE training. It would therefore seem incorrect to assume that school experience as pupil and teacher would result in the development of similar attitudes towards geography education and practice as proposed by Lortie (1975) and Mardle and Walker, (1980).

Probationer reports support the contention that school experience as pupil and teacher is very different. The notion that teacher attitudes are largely the result of anticipatory socialization would therefore seem to be false. The experience and role of pupil and teacher is too diverse to expect the attitudes established in one to carry over into the realm of the other. This is borne out by the previous finding that the greatest discrepancy in attitudes

towards geography education and practice occurs between beginning students and probationary teachers.

At each stage in the career hierarchy, individuals perceive the influences of training and school experience from a differing viewpoint. Table 8.14 shows the mean scores relating to group perceptions of influences upon their choice of teaching style (1 = not important; 5 = extremely important). It is clearly discernible that the perception of the influence of training experience (Qs.66, 72 and 74) generally declines from the time students start their HDE course. This would suggest that during the HDE year disillusionment has already commenced regarding the practicality of employing idealised practice in school classrooms. During the pre-service training year student attitudes towards teaching practice become more liberal, a factor which would seem to heighten the frustrations felt when attempting to apply these ideals in practice. It is suggested that disillusionment commences during student teaching practice and intensifies when the individual becomes a probationary teacher.

Most changes in teacher attitudes and practice occur when individuals are probationers. Upon entering the school environment they are influenced by organisational factors which alter their attitudes towards geography education and tend to make them less third phase in nature. Attitude changes are reflected in probationers' decision-making in relation to teaching practice. Probationer diaries clearly indicate that classroom experience generated emotional stress as the individuals attempted to come to terms with the practicalities of classroom teaching. Although they receive experience of teaching during their pre-service training, it appears that they are not well prepared for the shock of transition to full-time school experience. In this regard the amount of academic, administrative and extramural work they are required to undertake leaves them tired, confused and demoralised. As a result they have little free time and find that personal relationships become neglected. Eventually the attempt to balance their private and working

ITEM	INFLUENCE	STD 1	STD 2	PROB	TEACH	SR	HOD
65	*Teachers admired while pupil*	3,2	3,2	3,0	2,7	2,5	2,9
66	*Ideas from teacher training*	3,8	3,8	3,1	3,1	2,9	2,7
67	*Ideas from books/ journals*	3,4	3,2	3,0	3,3	3,1	3,4
68	*Teaching styles of other teachers*	3,3	3,2	3,2	3,1	3,0	3,4
69	*Equipment / prepared material*	3,5	3,5	3,8	3,6	3,4	3,8
70	*Pupil classroom behaviour*	3,7	3,8	3,9	3,8	3,7	3,9
71	*Textbooks*	3,2	2,7	3,5	3,3	3,3	3,5
72	*Inservice courses/ geog. associations*	3,3	3,2	2,7	2,9	3,2	3,4
73	*Instructions from subject head*	3,0	3,0	2,8	2,6	2,3	2,8
74	*Departmental guides*	3,1	2,8	2,4	2,5	2,4	2,6
75	*Examinations*	3,2	2,8	3,3	3,1	3,0	3,4
76	*Desire for promotion*	2,5	2,3	2,4	2,5	2,4	2,4

STD 1 = beginning student
STD 2 = qualified student
Prob = probationer
Teach = teacher
SR = senior teacher
HOD = head of department

TABLE 8.14. GROUP MEANS RELATING TO PERCEPTION OF INFLUENCE UPON TEACHING STYLE.

lives leads to satisficing behaviour in which probationers compromise their ideals and adopt a teacher-centred, second phase approach towards the subject.

The most important influences favouring the move towards the use of traditional, conservative teaching practices are the behaviour of pupils, the availability of equipment and prepared material, textbooks and examinations. Choice of teaching approach is largely determined by the need to convey information to pupils who are often perceived as obstructive and who prefer to be 'spoon-fed' with geographical information. Allied to this is the influence of textbooks which are used to prescribe the content and depth to which the subject should be taught (Diepeveen, 1982). Finally, the system of teacher-centred education is reinforced by examinations and the influence of colleagues which predisposes individuals to conform to the teaching style and standards of others in the school environment. During the socialization process the ideals of training are not forgotten but are rather found to be impractical in the light of organisational pressures and the need to be accepted by pupils and colleagues.

Case study diaries reinforce the potency of school experience in the socialization of teachers, particularly in regard to teaching practice. The trauma of full-time teaching is such that attitude change is easily accomplished. Unfortunately, school experience in the Cape Education Department tends to reinforce the use of a second phase approach towards geography education thus thwarting the progressive aims of the school syllabus. A ray of hope, however, lies in the increased sensitivity of individuals to in-service training and geography associations as they progress through the school system. If third phase practice is to become the norm in secondary schools it is essential that research is undertaken in order to improve the process of geography probationer induction into the school

environment. If the present system is allowed to continue, the emotional and physical strain of school experience will persist in the reinforcement of outmoded and inappropriate teaching practice.

CHAPTER NINE

CHANGE IN SECONDARY SCHOOL GEOGRAPHY EDUCATION : SUMMARY AND CONCLUSIONS.

Geography education is firmly entrenched in South African schools and has responded to change from the time it was officially introduced into secondary schools during the middle of the 19th century. The subject has grown in importance and stature as it has consolidated its position in the curriculum. Analysis of standard 10 pupil enrolment provides evidence that geography has maintained its position in the curriculum since 1970. In contrast, during this period other major subjects such as history, biology and physical science have experienced a percentage decrease in pupil enrolment relative to the total numbers of pupils. Whether geography will continue to maintain its position in the secondary school curriculum of the 1990's will, however, depend firstly on the response of teachers to the challenge of demographic and political change (which will increasingly alter the aims of secondary school education) and secondly, on their ability to successfully confront issues related to subject accountability.

It has been demonstrated that the Graves (1981) typology is a most useful tool which not only enables analysis of the nature of South African geography education, but also provides a conceptual framework within which to view the interaction of syllabus aims, content and classroom teaching practice. Evaluation of the aims and content of secondary school syllabuses initially suggests that geography education in South Africa is third phase in nature. Clearly, syllabus and examination changes implemented since 1970 have been highly successful in this regard. However, literature research establishes that classroom teaching practice has remained relatively static during this period. It appears that classroom teaching practice is dominated by a directive, teacher-centred approach (which is more characteristic of first or second phase education) and on

this basis South African geography education fits most comfortably into the second phase of the Graves typology.

The application of the typology requires that all aspects of the education process be taken into account. This poses the question of why the aims and content of the syllabus can reflect one stage in the evolution of change while teaching practice lags behind. The typology provides a means whereby it is possible to establish that the teacher's role is of ultimate importance in the attainment of third phase aims. Given that syllabus change in itself does not necessarily lead to an alteration in the nature of geography education as a whole, the teacher is identified as a most important element in the process of change. If geography education is to be truly third phase in nature, it is essential that classroom practice should be non-directive and pupil-centred in approach in order to achieve the aims of the syllabus.

Theory, supported by a limited number of studies, suggests that training elements (although successful in terms of encouraging what may be described as third phase attitudes towards geography education) have little long-term influence upon teacher adoption of pupil-centred practice. Once teachers enter the school environment, organisational elements combine to effect attitude and practice changes which are marked by a reversion to a conservative standpoint. Thus the third phase views and ideals of teachers are quickly nullified by school experience.

It is clear, therefore, that to effect change in classroom practice, a more detailed understanding is required of teacher attitudes and practice and how these change during the process of professional socialization. This study advances knowledge in this regard by establishing and placing major elements influencing geography teacher classroom practice within a theoretical framework relating to training and organisational experience. By focusing upon these elements it has been possible to establish their relative roles in teacher classroom decision-making and isolating those aspects most in need of change.

As far as can be ascertained, this study breaks new ground in that it attempts to investigate the above process in geography education using both an empirical and case study approach. In particular, the research undertaken has contributed to knowledge in the following ways:-

- by establishing an approach which can be used in the investigation of geography teacher attitudes and practice as well as the process of professional socialization. The nature of the approach is such that it may be applied in other education systems. Accordingly, this research is seen as a pioneering attempt which, it is hoped, will stimulate others to undertake comparative studies in order to extend understanding of the interaction between the nature of geography education, the socialization of the teacher and classroom decision-making.

- by establishing the personal characteristics of geography teachers in the Cape Education Department. Findings indicate that the typical geography teacher is male and has three or four years of training. It is disturbing, however, to find that 26% of respondents have only two or less years of geography training. Concerning attitudes towards geography education and the manner in which the subject is taught, analysis of survey data indicates that geography teachers are subject- rather than pupil-centred in terms of their reasons for teaching; their attitudes towards geography education and practice is decidedly second phase in nature; choice of teaching style is largely influenced by the classroom behaviour of pupils, the availability of teaching aids and of prepared teaching material; the use and ideal use of teaching methodologies indicates a directive, teacher-centred approach in the classroom. Overall, the findings reinforce the contention that geography education in the

Cape Education Department (and by implication in 'White' education in South Africa generally) is second phase in nature. The analysis breaks new ground by using geography teacher attitudes and practice to determine the nature of geography education within an education department.

- by establishing where significant differences lie in Cape Education Department geography teacher attitudes and practice, thereby identifying groups of teachers most in need of attention if the third phase aims of secondary syllabuses are to be achieved. Major differences emerged in both attitudes and practice between English- and Afrikaans-speaking teachers. This suggests that the quality of geography education in English- and Afrikaans-medium schools differs significantly. The finding raises questions about the effect of cultural background upon the nature of geography education in South African schools and seriously undermines the basis of apartheid education, i.e., that one can provide education which is both separate and equal. The exact nature and effect of culture upon geography education in a variety of South African schools obviously requires further study. Comparative research undertaken in other countries where geography is taught using two or more languages in a single education department, would help to provide additional insight and throw light on the effect of cultural background upon teachers and consequently upon the nature of geography education experienced by pupils in the classroom.

- by establishing that length of training has little impact upon teacher attitudes towards the use of non-directive, pupil-centred teaching practice. Findings do, however, suggest that teachers with five or more years of training use pupil-centred methodologies more frequently than

those with two years or less. However, the relatively minor influence of training upon teacher classroom decision-making, when compared with that of school experience, is a particularly interesting finding. It suggests that institutions involved with pre-service geography teacher-training need to re-evaluate their effectiveness in determing teacher classroom practice. As far as is known, no such research has been undertaken thus far in South Africa.

- by considering the process of geography teacher socialization and identifying periods of maximum change in attitudes and practice. The research findings generally support international theory concerning the professional socialization of teachers, i.e., the dominance of school as opposed to training experience in determining teacher attitudes and practice, as well as the fact that most change occurs in the probationary year of teaching. This research does, however, break new ground by investigating not only changes occurring as individuals progress from student to probationer, but also by establishing the differing attitudes and practice of teachers as they progress through the career hierarchy. The finding that the practice of senior teachers is less third phase in nature than that of their junior colleagues is cause for concern, due to the influence they exert upon the standard of geography education in schools. Research into geography teacher socialization also provides empirical evidence which contradicts the ideas of theorists such as Lortie (1975) and Mardle and Walker (1980), for anticipatory socialization has not emerged as an important determinant in individual choice of teaching style. On the basis of study it can be argued that the role of pupil and teacher are sufficiently dissimilar to engender different attitudes towards issues

concerning classroom decision-making. Further research is needed in order to clarify the part which past experiences as pupil have upon geography teacher adoption of classroom practice.

- by establishing influences upon probationary teachers which lead to the marked changes in attitudes towards, and practice in, geography education identified in the statistical analysis. Probationer diaries confirm that the behaviour of pupils and keeping discipline in class are the major factors affecting teaching practice decision-making. Predictably, other organisational factors predisposing probationers to adopt a directive, teacher-centred approach in the classroom, are the lack of equipment and prepared material, the nature of textbooks, tests and examinations and the example of colleagues and others in positions of authority. Not only has the use of diaries provided insight into the most important socialization forces once teaching starts, but an unsuspected reaction comes to light in that probationers apparently use teaching methodologies to punish or reward pupils according to their classroom behaviour. The implications of this finding for those concerned with encouraging the use of pupil-centred methodologies in geography classrooms, obviously needs further investigation. Overall, probationer diaries indicate that much of the trauma of first year teaching is generated as a result of an excessive work load and that this, in turn, rapidly leads to the adoption of satisficing behaviour in which the use of teacher-centred practice becomes increasingly attractive. It is not surprising, therefore, that training has relatively little influence upon choice of teaching style and use of teaching methodologies compared with the effect of organisational elements.

The findings of this study highlight the need for teaching practice change in geography education if the third phase aims of the syllabus are to be achieved. In the past it was assumed that such change would occur in an evolutionary manner as teachers adjusted to the demands of a revised syllabus and matriculation examination. Accordingly, attention has been directed largely at bringing about change in syllabus aims and content as well as the nature of tests and examinations. Although this has had the effect of changing the knowledge base of the subject, the nature of geography education as experienced by pupils in the classroom has, however, remained much the same. This is due largely to the reluctance of teachers to adopt a non-directive approach and use pupil-centred methodologies in the classroom. It is clear then, that to move the subject towards the attainment of third phase aims, geography educators need to actively undertake research and planning in order to bring about fundamental change in teacher classroom decision-making. Confronted by challenges to demonstrate the value of geography education in the secondary school curriculum, geography educators can no longer afford to plan for such change in a reactionary manner but need to respond by actively creating the desired future.

There are of course a variety of strategies which may be used to encourage teachers to adopt a non-directive, pupil-centred approach in geography education. This study has shown that the most difficult and yet essential problem which strategies must address is the need to alter the influence of organisational elements in order to encourage teacher use of third phase practice. Stated another way, strategies must be developed to ensure that the influence of training becomes dominant in classroom decision-making. In this regard geographers need to consider the teacher rather than the subject, as the focus of change.

Educational planners, especially in South Africa, must therefore ensure that strategies for future change in geography education are based upon reliable information

regarding teacher attitudes and practice and actively involve teachers in the planning process. In this regard it is essential that future research and planning link educational theory with the realities of school experience (Slater and Rask, 1983). It is strongly recommended that research be undertaken to investigate the suitability of systems in which training institutions and schools are jointly responsible for pre-service teacher-training. Although such a suggestion is far from new, it is noticeable that there has recently been a strong international move to focus upon partnership schemes in teacher training (Cohn, 1981; Emans, 1983; Smyth, 1984; and Zeichner, 1983) which could aid in defining problems and suggesting solutions. In particular, research related to apprenticeship schemes (Watts, 1982), mentoring (Bova and Phillips, 1984; Fagan and Walter, 1982; Gibbon, 1986), and teacher-tutors (Gibson, 1972), suggest that a judicious mix of these approaches could bring about lasting change in the attitudes and practice of teachers. For an extensive summary of practical measures for probationer support, see Hadley (1982, p.79-80).

Due to the problems involved with undertaking a detailed study of geography teacher attitudes and practice in all departments of education in South Africa, it is inevitable, but nevertheless unfortunate, that the findings are directly applicable to 'White' education alone. This project should, therefore, be regarded as a pilot study to be replicated as part of a future collaborative effort combining the expertise and experience of geography educators in other departments. Notwithstanding the above, it is contended that the general conclusions of this study, particularly in relation to planning approach, apply to all departments of education in South Africa. The fact that educational change has traditionally been imposed upon departments catering for pupils other than 'Whites' without due consideration of their views, reinforces the value of a planning approach which is based upon the premise that change in the classroom will take place only if it has the support and commitment of teachers. In a post-apartheid society, such an approach

will be essential if change is to be successfully implemented in a system which will be characterised by vast differences in the nature of geography education in the schools due to the legacy of the past.

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APPENDIX A

JOINT MATRICULATION BOARD SUBJECT LIST

S. – STANDARDS FOR THE SCHOOL-LEAVING CERTIFICATE OF THE BOARD

List of subjects

S1. – The list of subjects for the School-leaving Certificate examinations shall be –

Group A

Afrikaans First Language Higher Grade
Afrikaans Second Language Higher Grade
Afrikaans Second Language Standard Grade
English First Language Higher Grade
English First Language Standard Grade
English Second Language Higher Grade
English Second Language Standard Grade (To be offered only until March 1984)

Group B

Mathematics Higher Grade
Mathematics Standard Grade

Group C

Biology Higher Grade
Biology Standard Grade
Physical Science Higher Grade
Physical Science Standard Grade

Group D

Afrikaans Second Language Standard Grade (may only be offered by immigrants and Black candidates)
A Bantu language First Language Higher Grade selected from Northern Sotho, Southern Sotho, Tsonga, Tswana, Venda, Xhosa and Zulu.
A Bantu Language Standard Grade selected from Northern Sotho, Southern Sotho, Tsonga, Tswana, Venda, Xhosa en Zulu.
English Second Language Standard Grade (may only be offered by immigrants and Black candidates)
German Higher Grade (Mother Tongue)
German Higher Grade (Third Language)
Greek Standard Grade.
Hebrew Higher Grade.
Italian Standard Grade.
Latin Higher Grade.
Portuguese Standard Grade.
Spanish Standard Grade.

(e) **Group E:**
Biblical Studies Higher Grade.
Biblical Studies Standard Grade.
Economics Higher Grade.
Economics Standard Grade.
Geography Higher Grade (if not offered under Group F).
Geography Standard Grade (if not offered under Group F).
History Higher Grade.
History Standard Grade.

(f) **Group F:**
Accounting Higher Grade.
Accounting Standard Grade.
Additional Mathematics Higher Grade (shall not be offered without Mathematics Higher Grade and shall only be offered by candidates taking seven subjects).
Agricultural Science Higher Grade.
Agricultural Science Standard Grade.
Art Higher Grade (shall not be offered by private candidates)
Art Standard Grade (shall not be offered by private candidates)
Business Economics Standard Grade.
Commercial Mathematics Standard Grade (shall not be offered with Mathematics Higher or Standard Grade).
Geography Higher Grade (if not offered under Group E).
Geography Standard Grade (if not offered under Group E).
Home Economics Higher Grade (shall not be offered by private candidates).
Home Economics Standard Grade (shall not be offered by private candidates).
Music Higher Grade (shall not be offered by private candidates).
Music Standard Grade (shall not be offered by private candidates).
Shorthand Standard Grade.
Snelskrif Standard Grade.
Speech and Drama Standard Grade.
Technical Drawing Higher Grade.
Technical Drawing Standard Grade.
Typing Standard Grade.

APPENDIX B

JOINT MATRICULATION BOARD - INTRODUCTION TO THE SYLLABUS (1983)

INTRODUCTION TO THE SYLLABUS

CONTENTS

1. 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:

- man-land relationships
- the spatial perspective
- the regional viewpoint
- 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:

- acquire and develop intellectual skills and abilities which will promote on-going education
- adjust to a society that is undergoing rapid and far-reaching social, economic and political changes
- enter the world-of-work that is becoming increasingly more technologically orientated
- develop their moral and emotional (affective) attributes.

1.2.2 The teaching of Geography should neither be specifically vocationally orientated, not entirely university orientated. The syllabus should provide for two groups of pupils:

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

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

2. OBJECTIVES

- In lesson preparation teachers should bear in mind the higher abilities of comprehension, analysis, application, synthesis and evaluation.
- This subject should be taught in such a way that pupils develop an eagerness for further study and individual inquiry.
- 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 are numerous, 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:

2.1 Knowledge

2.1.1 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.

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

2.2 Skills

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

- The importance attached to different skills should be related to the abilities and maturity of the pupils.
- The development of skills should enable pupils to deal with knowledge in an organized manner.
- Pupils should gain proficiency in the use of skills through repetition and the application of these skills to new situations.

2.2.2 Geography makes a particular contribution to the following skills:

- Oracy and literacy: thinking logically, writing concisely, speaking with assurance and accuracy
- Numeracy: facility with simple statistical methods, graphs and tables
- Graphicacy: the ability to draw, read and interpret
- Interpretation: of pictures, photographs and maps
- Fieldwork techniques: using either the traditional (survey) or the scientific approach.

2.3 Perception

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

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

- recognize the relationships that exist between people and their environment
- identify spatial patterns, spatial relationships and interaction (This is closely linked with an understanding of location, distance and accessibility.)
- be aware of the underlying processes which act upon spatial patterns and relationships and which bring about change
- be aware of the world's place to place variety; to recognize the uniqueness of place.

2.3.2 Many studies require pupils to examine the spatial aspects of social and economic problems. Such studies provide opportunities for pupils to respond to problem-solving and decision-making situations through critical, divergent and creative thinking.

2.4 Appraisal

2.4.1 Studies in Geography should promote the formation and reinforcement of positive attitudes and values.

- This is an emotional objective, for, without appealing to the emotions and without sufficient motivation, learning seldom takes place.

2.4.2 Pupils need to develop a social awareness. This means that they are expected to:

- recognize the inter-dependence of man
- acquire a tolerant attitude towards others with different social, economic and political circumstances.

2.4.3 Pupils need to develop an environmental awareness. They need to feel a commitment towards the environment by developing a 'caring attitude'. This means they are expected to:

- recognize the need for conservation

- understand that the balance of nature is largely dependent on man's wise management of his environment

  They should be aware of how man uses/abuses his environment, particularly the resources available to him; the options and constraints that are placed on his actions.

- 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.

3. TEACHING GUIDELINES

3.1 Teaching approaches

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

3.1.1 The holistic or global approach

- It is particularly important that the components of the syllabus be viewed as parts of a whole and not as isolated compartments of knowledge.

- The divisions of the syllabus should be regarded as a convenient means of grouping the characteristics of the individual components.

- Wherever possible, the relationship and interaction between components should be stressed.

3.1.2 The descriptive versus the problem-solving approach

- 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.

- Pupils should gain insight into the process of decision-making by participating in exercises such as simulation games.

3.1.3 The systems approach

- It is recommended that teachers introduce the concept of systems into their teaching.
- 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 sub-systems to facilitate its study.
- Several components of the syllabus could be taught as sub-systems such as those associated with weather, drainage and urban sub-systems.

3.1.4 The inter-disciplinary approach

- Concepts studied in Geography may overlap with those of other subjects such as Biology, Science, and Economics.
- 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 inquiry (statement of hypothesis, followed by the collection and classification of information, and finally, the testing of the hypothesis).

3.2 Teaching 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:

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

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 refer to models. These include:

- theoretical models (such as urban and economic models) which need to be tested against the real world. These enable geography to be studied by means of a more problem-orientated approach

- physical models (such as globes, tellurions and paper-mâché / sand-tray models) which provide effective representations of the real world.

3.2.6 undertake 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.

3.2.7 encourage individual and group research techniques

- Pupil involvement, independent activity, initiative, creativity and independence should constantly be extended.

- 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; as well as television, the radio and the press.

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

- Pupils need to distinguish between central issues of importance and peripheral issues.

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

3.3 Differentiation

3.3.1 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.

3.3.2 Most of the topics studied are common to all grades. However, pupils in different grades will not be expected to study these in the same depth. The approach to, and the control of work for less able pupils should be more direct.

3.4 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.

4. EXAMINATIONS

4.1 There should be continous evaluation for all standards:

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

4.3 A final public examination will be set at the end of the Std 10 year.

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

4.3.2 This examination will consist of TWO papers:

PAPER 1: 1½ HOURS

- Compulsory questions on photo and map reading, analysis and interpretation will be set.
- The emphasis will be on interpretation, and questions will relate to aspects of Physical, Settlement and Regional Geography.

PAPER 2: 3 HOURS

- This paper will be divided into THREE sections.
- FOUR questions must be answered: ONE from each section and the FOURTH question may be chosen from sections A, B or C.
- Layout of paper for the Higher Grade and the Standard Grade:

SECTION A - PHYSICAL GEOGRAPHY
TWO questions set, at least ONE must be answered.

SECTION B - SETTLEMENT GEOGRAPHY
TWO questions set, at lease ONE must be answered.

SECTION C - REGIONAL GEOGRAPHY
THREE questions set, at least ONE must be answered.

- COMBINED questions may be set in each section; for example, a question in section A may comprise the Geomorphology, Ecology and Climatology components.

- HIGHER GRADE: Questions may either be SYSTEMATIC or of the COMPOSITE variety. A composite question in one section (eg. Section A) may include aspects from one or both the other two sections (B and/or C), provided the marks allocated to aspects from other sections do not exceed 25 % of the total marks for the question.

- STANDARD GRADE: emphasis should be on the SYSTEMATIC type of question.

4.4 Differentiation between Higher Grade and Standard Grade, for both internal and external papers, should be achieved through the type of questions set and on their mark allocation.

NOTE: Italicized statements in the SYLLABUS CONTENT are GUIDELINES suggesting an approach. These should allow for greater flexibility when teaching the subject.

APPENDIX C

DEPARTMENT OF EDUCATION LETTER

ROVINSIALE ADMINISTRASIE
E DIE KAAP DIE GOEIE HOOP

RTEMENT VAN ONDERWYS

VINSIALE GEBOU, WAALSTRAAT,
POSBUS 13, KAAPSTAD 8000

PROVINCIAL ADMINISTRATION
OF THE CAPE OF GOOD HOPE

DEPARTMENT OF EDUCATION

PROVINCIAL BUILDING, WALE STREET,
P.O. BOX 13, CAPE TOWN 8000

r R. Ballantyne
/o Department of Geography
niversity of Cape Town
ONDEBOSCH
700

TELEKS / TELEX 5722360
TELEGRAM EDUCATION
TELEFOON / TELEPHONE 45-9329
NAVRAE / ENQUIRIES Mr G.J. Swanepoel
VERWYSING / REFERENCE L.15/73/7
DATUM / DATE 5 August 1983

ear Mr Ballantyne

HE ROLE OF POST-GRADUATE TEACHER TRAINING IN THE FORMATION
F GEOGRAPHY TEACHER ATTITUDES: Ph.D. THESIS

. Your letter dated 29 July 1983 has reference.

. Your application for carrying out the survey is granted, subject to the following conditions:

2.1 No teacher/principal is under any obligation to provide the information required, or to co-operate in the research in any other way.

2.2 No teacher, principal or school may be identifiable in any way.

2.3 All arrangements in connection with your project must be undertaken by yourself.

2.4 The questionnaire must not be submitted for completion during school hours, or during the fourth term of the school year.

2.5 The conditions 2.1 - 2.4 above must be quoted in full when you approach the principals concerned for their co-operation.

2.6 A copy of your application requesting principals for their co-operation must be furnished to the Education Bureau (vide address in 2.7 below) at your earliest convenience. This copy is required for Departmental record purposes.

2/...

2.7 A copy of your thesis must be submitted to each of the following:

(i) The Education Bureau, and

(ii) The Education Library

of the Cape Department of Education, P.O. Box 13, CAPE TOWN 8000.

3. The Department wishes you every success in your studies.

Yours faithfully

for DIRECTOR: EDUCATION

APPENDIX D

QUESTIONNAIRE SURVEY LETTER

UNIVERSITY OF CAPE TOWN

(WITH WHICH IS INCORPORATED THE SOUTH AFRICAN COLLEGE)

Telephone: 69-8531
Telex: 57-22208

Telegraphic Address:
Alumni Cape Town

DEPARTMENT OF GEOGRAPHY

Rondebosch, 7700

Dear Geography Colleague,

As part of my Ph.D. entitled "The role of Post-Graduate Teacher Training in the Formation of Geography Teacher Attitudes" I have constructed a survey which needs to be administered to all practising geography teachers in the Cape Province. Please could you assist me by ensuring that all teachers in your school who teach geography (even if only for a few periods a week) complete the enclosed survey and return them to you. I would greatly appreciate it if you could then return the surveys to me in the enclosed self-addressed envelope.

The aim of the research being undertaken is to investigate the effect that teacher training programmes have on the way in which geography is being taught in schools in order to improve the effectiveness of the training. As such it is essential that practising geography teachers are canvassed for their views and attitudes towards the subject, the way it is taught and the geography teacher training programmes they attended.

Obviously the success of the research will largely be dependent on the number of surveys that are returned. Your assistance in this regard will be greatly appreciated.

Yours sincerely,

R. Ballantyne.

ROY BALLANTYNE

UNIVERSITY OF CAPE TOWN

(WITH WHICH IS INCORPORATED THE SOUTH AFRICAN COLLEGE)

Telephone 69-8531
Telex: 57-22208

Telegraphic Address:
Alumni Cape Town

DEPARTMENT OF GEOGRAPHY

Rondebosch, 7700

Geagte Aardrykskunde Kollega,

As deel van my Ph.D.-tesis, getiteld "The role of Post-Graduate Teacher Training in the Formation of Geography Teacher Attitudes" het ek 'n vraelys opgestel wat toegepas moet word op alle praktiserende aardrykskunde-onderwysers in die Kaapprovinsie. Sal u my asseblief help deur toe te sien dat alle onderwysers in u skool wat aardrykskunde onderrig (selfs al is dit net 'n paar periodes per week), die ingeslote vraelys voltooi en aan u terugbesorg. Ek sal dit hoog op prys stel as u dan die vraelyste aan my sal terug stuur in die ingeslote, selfgeadresseerde koevert.

Die doel van die navorsing wat onderneem word, is om die effek van onderwysersopleidingsprogramme op die manier waarop aardrykskunde in skole onderrig word vas te stel, ten einde die effektiwiteit van die opleiding te verbeter. As sodanig is dit noodsaaklik dat praktiserende aardrykskunde-onderwysers genader word om hul menings en houdings teenoor die vak, die manier waarop dit aangebied word en die aardrykskunde-onderwysersopleidings-programme wat hul bygewoon het, vas te stel.

Die sukses van die navorsing sal ooglopend grootliks afhang van die aantal vraelyste wat teruggestuur word. U hulp in hierdie verband sal hoog op prys gestel word. Indien u graag die resultaat van die opname sou wou bekom, dui asseblief aan deur u adres in te sluit wanneer u die vraelyste terugstuur.

Vriendelike Groete,

R. Ballantyne

ROY BALLANTYNE

APPENDIX E

BEGINNING STUDENT, QUALIFIED STUDENT AND GEOGRAPHY TEACHER SURVEY QUESTIONNAIRES

UNIVERSITY OF CAPE TOWN

GEOGRAPHY STUDENT TEACHER SURVEY

The purpose of this survey is to gain information about teacher attitudes towards teaching, geography as a subject, geography teacher training and the types of geography teaching methods used in schools. As such there are no right or wrong answers. When answering questions please reflect your own feelings and not what you perceive to be the correct answer. This survey is private and confidential.

Please answer every question by crossing the appropriate response.

For example:-

Male Female

THANK YOU FOR YOUR CO-OPERATION.

PERSONAL DATA:

1. Male Female

2. Years of formal geography education. i.e., Geography III = 3

None 1 2 3 4 5 6 7

3. Did you take geography as a Matric subject?

Yes No

4. When did you decide to become a teacher?

During your school years | First year University | Second year University | Third year University | Fourth year University

5. Do you intend teaching Geography when you qualify as a teacher?

Yes No

6. Highest geography standard taught during practical teaching;

Std. 6 Std. 7 Std. 8 Std. 9 Std. 10 Post Matric

7. Which language medium do you use when teaching?

English Afrikaans

8. What other subjects are you intending to teach once you are qualified?

.....

Dui aan die belangrikheidsgraad van die volgende invloede op die manier waarop u aardrykskunde sal doseer.

Sterkte van invloed:-

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

	Invloede op styl van onderrig	Vlak van belangrikheid				
		Laag				Hoog
65.	Onderwysers wie u bewonder het toe u op skool was	1	2	3	4	5
66.	Idees aangeleer in u onderwysersopleidings-kursus	1	2	3	4	5
67.	Idees wat u uit boeke en tydskrifte gekry het	1	2	3	4	5
68.	Die onderwysstyle van ander onderwysers met wie u in kontak was	1	2	3	4	5
69.	Die beskikbaarheid van toerusting en ander onderrigmateriaal soos voorbereide werkopdragte	1	2	3	4	5
70.	Die klaskamergedrag van leerlinge en hul reaksie teenoor verskillende onderrigstyle	1	2	3	4	5
71.	Die materiaal bevat in handboeke	1	2	3	4	5
72.	Indiensopleidingskursusse en aardryks-kundeonderwysersverenigings	1	2	3	4	5
73.	Instruksie oor metode van onderrig van die Departementshoof	1	2	3	4	5
74.	Onderwysersgids van die Departement van Onderwys	1	2	3	4	5
75.	Eksamens	1	2	3	4	5
76.	Begeerte om bevordering te verkry	1	2	3	4	5

Please indicate the level of importance of the following factors in determining your reasons for choosing teaching as a career:

1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

Reasons for Teaching		Level of Importance				
		Low				High
9.	Want to increase self-knowledge	1	2	3	4	5
10.	Influence next generation	1	2	3	4	5
11.	Little danger of being out of job	1	2	3	4	5
12.	Like seeing progress made by children as they become aware of things	1	2	3	4	5
13.	Challenge of changing situation	1	2	3	4	5
14.	Possibilities for advancement	1	2	3	4	5
15.	Like to feel will always have steady income	1	2	3	4	5
16.	Companionship of staffroom	1	2	3	4	5
17.	Change young people's attitudes	1	2	3	4	5
18.	Like keeping up with subject	1	2	3	4	5
19.	Guide pupils towards a suitable career	1	2	3	4	5
20.	Can be fitted around other commitments	1	2	3	4	5
21.	Like the holidays	1	2	3	4	5
22.	Preparing pupils to build new society	1	2	3	4	5
23.	Like teaching own subject and imparting knowledge	1	2	3	4	5

	Onderwysopleidingsinhoud	Vlak van belangrikheid				
		Laag				Hoog
56.	Skoolaardrykskunde projekte (tydskrifte, ens.)	1	2	3	4	5
57.	Ruimtelike konsep-ontwikkeling by leerlinge soos hulle deur die skool vorder	1	2	3	4	5
58.	Besondere aardrykskundige vermoëns (kaartwerk, ens.)	1	2	3	4	5
59.	Ontwikkeling van professionele houdings teenoor onderrig van aardrykskunde	1	2	3	4	5
60.	Begaafde leerlinge in Aardrykskunde	1	2	3	4	5
61.	Stadige leerders in aardrykskunde	1	2	3	4	5
62.	Onderrig van aardrykskunde in agterlike skole	1	2	3	4	5
	Ander (voeg by)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Aardrykskunde-onderwysersopleiding is ver verwyder van die realiteite van klaskameronderrig.

Beslis ja Ja Weet nie Nee Beslis nee

64. Die aardrykskunde-onderwyseropleidingskursus wat ek bygewoon het was van min waarde vir my.

Beslis ja Ja Weet nie Nee Beslis nee

Attitudes towards Teaching - Continued.

24. I think I made a mistake becoming a teacher.

Never Very seldom Seldom Frequently Very frequently

25. I think I made a mistake becoming a geography teacher.

Never Very seldom Seldom Frequently Very frequently

STATEMENTS CONCERNING GEOGRAPHIC EDUCATION:

26. Geographical education is concerned with the development of young minds.

Agree strongly Agree Undecided Disagree Disagree strongly

27. Geography should develop a love for one's country and culture.

Agree strongly Agree Undecided Disagree Disagree strongly

28. Geography should encourage a wonder of creation.

Agree strongly Agree Undecided Disagree Disagree strongly

29. Geographical education is concerned with teaching concepts and skills useful to society.

Agree strongly Agree Undecided Disagree Disagree strongly

30. Geography lessons should instil respect for moral values and tolerance of other races, religions and ways of life.

Agree strongly Agree Undecided Disagree Disagree strongly

31. Geography should deal critically with political ideals as they pertain to spatial patterns and organisation.

Agree strongly Agree Undecided Disagree Disagree strongly

32. Geography should develop an awareness of social justice in pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

33. Geography should supply pupils with facts about the world they live in.

Agree strongly Agree Undecided Disagree Disagree strongly

34. The geography school syllabuses should contain more spatial theory.

Agree strongly Agree Undecided Disagree Disagree strongly

35. Pupils should be presented with more regional geography at the school level.

Agree strongly Agree Undecided Disagree Disagree strongly

HOUDINGS TEENOOR ONDERWYSMETODES:

46. Dit is idealisties om te aanvaar dat onderwysmetodes soos veldwerk, aardrykskundige speletjies en rolvertolkings 'n belangrike deel van skoolaardrykskunde-onderrigstrategieë moet uitmaak.

Beslis ja Ja Weet nie Nee Beslis nee

47. Gewoonlik is die ideale tydsverhouding van "onderwyser wat praat" teenoor "leerling wat werk" in 'n 40 minute periode:-

30 : 10 25 : 15 20 : 20 15 : 25 10 : 30

48. As aardrykskunde-onderwyser sal ek hoofsaaklik hou by die onderrigmetodes gebruik deur ander in die departement/skool.

Beslis ja Ja Weet nie Nee Beslis nee

49. Ontdekkingsmetodes van onderrig wat leerlingsentreerde benaderings gebruik is goed in teorie, maar nie prakties in die werklike situasie nie.

Beslis ja Ja Weet nie Nee Beslis nee

50. Die nuwe leerlingsentreerde aardrykskunde onderrigmetodes bereik hoër inname by leerlinge vergeleke met die resultate behaal deur meer tradisionele metodes.

Beslis ja Ja Weet nie Nee Beslis nee

HOUDINGS TEENOOR AARDRYKSKUNDE ONDERWYSEROPLEIDING:

Dui aan die belangrikheid wat u sal heg aan die volgende komponente as u 'n aardrykskunde-onderwysersopleidingsprogram moes opstel.

Belangrikheidsgraad:-
1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

Onderwysopleidingsinhoud	Vlak van belangrikheid				
	Laag				Hoog
51. Aardrykskunde-inhoud van skoolsillabus	1	2	3	4	5
52. Metodes van aardrykskunde-onderrig	1	2	3	4	5
53. Praktiese aardrykskunde-onderrig	1	2	3	4	5
54. Filosofie van aardrykskunde-onderrig	1	2	3	4	5
55. Voorlesing deur praktiserende aardrykskunde onderwysers	1	2	3	4	5

Statements concerning geographic education - Continued.

36. Geography at school level should aim to develop problem-solving skills.

Agree strongly Agree Undecided Disagree Disagree strongly

37. Geography lessons should teach generalities common to many regions rather than the particularities of any one region.

Agree strongly Agree Undecided Disagree Disagree strongly

38. Geography syllabuses should be designed to facilitate social awareness on the part of pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

39. Geography should develop pupils' critical appreciation of their environment.

Agree strongly Agree Undecided Disagree Disagree strongly

40. Geography should encourage environmental awareness and conservation ethics in pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

41. The learning of graphic skills such as map-work should comprise a larger segment of geography syllabuses than at present.

Agree strongly Agree Undecided Disagree Disagree strongly

42. Syllabus changes in school geography are desirable as they enable the subject to remain relevant to the needs of pupils and society.

Agree strongly Agree Undecided Disagree Disagree strongly

43. School geography content should be separate and different from that taught at University.

Agree strongly Agree Undecided Disagree Disagree strongly

44. School geography is a highly relevant subject in relation to the needs of pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

45. Geography is the most exciting subject to teach in the school curriculum.

Agree strongly Agree Undecided Disagree Disagree strongly

36. Aardrykskunde op skoolvlak behoort ten doel te hê om probleemoplossingsvaardigheid te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

37. Aardrykskunde-lesse behoort algemene feite wat gemeen is aan baie streke te onderrig eerder as die besonderlikhede van enige enkele streek.

Beslis ja Ja Weet nie Nee Beslis nee

38. Sillabusse vir aardrykskunde behoort ontwerp te wees om sosiale bewustheid by die leerling te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

39. Aardrykskunde behoort die leerling se kritiese waardering van sy omgewing te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

40. Aardrykskunde behoort omgewingsbewustheid en bewaringsetiek in leerlinge aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

41. Sillabusse vir aardrykskunde behoort die aanleer van grafiese vaardighede, soos kaartwerk, meer te beklemtoon as tans.

Beslis ja Ja Weet nie Nee Beslis nee

42. Sillabusaanpassinge in skoolaardrykskunde is wenslik aangesien dit die vak relevant hou tot die behoeftes van leerlinge en die gemeenskap.

Beslis ja Ja Weet nie Nee Beslis nee

43. Skoolaardrykskunde-inhoud behoort afsonderlik en verskillend te wees van dié op universiteit aangebied.

Beslis ja Ja Weet nie Nee Beslis nee

44. Skoolaardrykskunde is 'n hoogs relevante vak in verhouding tot die behoeftes van die leerlinge.

Beslis ja Ja Weet nie Nee Beslis nee

45. Aardrykskunde is die mees opwindende vak om te onderrig in die skoolkurrikulum.

Beslis ja Ja Weet nie Nee Beslis nee

ATTITUDES TOWARDS TEACHING METHODS:

46. It is idealistic to assume that teaching methods such as fieldwork, geographical games and role plays should constitute a significant part of school geography teaching strategies.

Agree strongly Agree Undecided Disagree Disagree strongly

47. Normally the ideal time ratio for "teacher talking" as opposed to "pupil working" in a 40 minute period is:-

30 : 10 25 : 15 20 : 20 15 : 25 10 : 30

48. As a geography teacher I will largely conform to the teaching methods used by others in the department/school.

Agree strongly Agree Undecided Disagree Disagree strongly

49. Discovery methods of teaching which utilise pupil-centred approaches are fine in theory but are not practicable in reality.

Agree strongly Agree Undecided Disagree Disagree strongly

50. New pupil-centred geography teaching methods achieve greater learning in pupils when compared with the results obtained by more traditional methods.

Agree strongly Agree Undecided Disagree Disagree strongly

ATTITUDES TOWARDS GEOGRAPHY TEACHER TRAINING:

Indicate the importance you would place on the following components if you were to plan a geography teacher-training programme.

Level of importance:-
1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

Teacher Training Content	Level of Importance				
	Low				High
51. Geographical content of school syllabus	1	2	3	4	5
52. Methods of geography teaching	1	2	3	4	5
53. Practical geography teaching	1	2	3	4	5
54. Philosophy of geographic education	1	2	3	4	5
55. Talks by practising geography teachers	1	2	3	4	5

24. Ek dink ek het fouteer om onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

25. Ek dink ek het fouteer om aardrykskunde-onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

STELLINGS AANGAANDE AARDRYKSKUNDIGE OPVOEDKUNDE:

26. Aardrykskundige opvoeding is gemoeid met die verstandelike ontwikkeling van jongmense

Beslis ja Ja Weet nie Nee Beslis nee

27. Aardrykskunde behoort 'n liefde vir eie land en kultuur te kweek.

Beslis ja Ja Weet nie Nee Beslis nee

28. Aardrykskunde behoort 'n bewondering van die skepping aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

29. Aardrykskundige opvoeding is bemoeid met die oordra van begrippe en vaardighede van gemeenskapsbelang.

Beslis ja Ja Weet nie Nee Beslis nee

30. Aardrykskunde-lesse behoort respek vir morele waardes en verdraagsaamheid teenoor ander rasse, godsdienste en lewenswyses daar te stel.

Beslis ja Ja Weet nie Nee Beslis nee

31. Aardrykskunde behoort krities te kyk na politieke ideale soos hulle ruimtelike patrone en organisasie raak.

Beslis ja Ja Weet nie Nee Beslis nee

32. Aardrykskunde behoort 'n bewustheid van sosiale geregtigheid in leerlinge te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

33. Aardrykskunde behoort leerlinge te voorsien van feite aangaande die wêreld waarin hul lewe.

Beslis ja Ja Weet nie Nee Beslis nee

34. Die skoolsillabus vir aardrykskunde behoort meer ruimtelike teorie te bevat.

Beslis ja Ja Weet nie Nee Beslis nee

35. Leerlinge behoort meer in streeksaardrykskunde onderrig te word.

Beslis ja Ja Weet nie Nee Beslis nee

Attitudes towards Geography Teacher Training - Continued.

	Teacher Training Content	Level of Importance				
		Low				High
56.	School geography tasks (journals etc.)	1	2	3	4	5
57.	Spatial concept development of pupils as they progress through school.	1	2	3	4	5
58.	Special geography skills (map work etc.)	1	2	3	4	5
59.	Development of professional attitudes towards geography teaching.	1	2	3	4	5
60.	Gifted pupils in geography	1	2	3	4	5
61.	Slow learners in geography	1	2	3	4	5
62.	Teaching geography in disadvantaged schools	1	2	3	4	5
	Other (please add)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Geography teacher-training courses are far removed from the realities of classroom teaching.

Agree strongly Agree Undecided Disagree Disagree strongly

64. The geography teacher-training course I participated in has been of little value to me.

Agree strongly Agree Undecided Disagree Disagree strongly

HOUDINGS TEENOOR ONDERWYS:

Dui asseblief die belangrikheidsgraad van die hieropvolgende faktore aan in u besluit om onderwys as beroep te kies.

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

Redes vir Onderwys gee		Belangrikheidsgraad				
		Laag				Hoog
9.	Wil selfkennis verbreed	1	2	3	4	5
10.	Wil volgende geslag beïnvloed	1	2	3	4	5
11.	Min gevaar van sonder-werk-wees	1	2	3	4	5
12.	Stel belang in die vordering van kinders soos hulle bewus word van dinge	1	2	3	4	5
13.	Uitdaging van 'n veranderende situasie	1	2	3	4	5
14.	Moontlikhede van bevordering	1	2	3	4	5
15.	Wil seker wees van vaste inkomste	1	2	3	4	5
16.	Kameraadskap van personeelkamer	1	2	3	4	5
17.	Verander benaderings van jongmense	1	2	3	4	5
18.	Bewus te bly van nuutste ontwikkelings in vak	1	2	3	4	5
19.	Help skoliere om geskikte loopbane te kies	1	2	3	4	5
20.	Kan inpas by ander verpligtinge	1	2	3	4	5
21.	Hou van die vakansies	1	2	3	4	5
22.	Berei leerlinge voor om nuwe gemeenskap op te bou	1	2	3	4	5
23.	Hou van die vak doseer en kennis oordra	1	2	3	4	5

3/...

Indicate the importance of the following influences upon the way in which you expect to teach geography.

Strength of influence:-
1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

	Influences on Teaching Style	Strength of Influence Low				High
65.	Teachers whom you admired while you were a pupil	1	2	3	4	5
66.	Ideas gained during your teacher-training course	1	2	3	4	5
67.	Ideas you have gained by reading books and journals	1	2	3	4	5
68.	The teaching styles of other geography teachers with whom you have come in contact	1	2	3	4	5
69.	The availability of equipment and other teaching material such as prepared work-sheets	1	2	3	4	5
70.	The classroom behaviour of pupils and their response to different teaching styles	1	2	3	4	5
71.	The material contained in text books	1	2	3	4	5
72.	Inservice training courses and geography teacher associations	1	2	3	4	5
73.	Instruction on how to teach given by your subject head	1	2	3	4	5
74.	Teacher guides from the education department	1	2	3	4	5
75.	Examinations	1	2	3	4	5
76.	Desire to obtain promotion	1	2	3	4	5

UNIVERSITEIT KAAPSTAD

AARDRYKSKUNDE ONDERWYSSTUDENT VRAELYS

Die doel van hierdie ondersoek is om inligting aangaande die houding van onderwysers ten opsigte van onderwys-aardrykskunde as vak, die opleiding van aardrykskunde-onderwysers en die verskillende aardrykskunde metodieke in skole toegepas, in te win. Daar is as sulks geen regte of verkeerde antwoorde nie. Met die beantwoording van die vrae moet u asb. u eie gevoelens weergee en nie wat u voel die korrekte antwoord behoort te wees nie. Hierdie opname is privaat en vertroulik.

Beantwoord asb. elke vraag deur die toepaslike antwoord met 'n kruisie aan te dui

Byvoorbeeld:-

Manlik ~~Vroulik~~

DANKIE VIR U SAMEWERKING.

PERSOONLIKE DATA:

1. Manlik Vroulik

2. Aantal jare formele aardrykskunde-opleiding, bv.: Geografie III = 3

   Geen 1 2 3 4 5 6 7

3. Was aardrykskunde een van jou matric vakke?

   Ja Nee

4. Wanneer het u besluit om 'n onderwyser te word?

Gedurende jou skool jare	Eerste Jaar Universiteit	Tweede Jaar Universiteit	Derde Jaar Universiteit	Vierde Jaar Universiteit

5. Is u van voorneme om aardrykskunde te dosseer wanneer u kwalifiseer as onderwyser?

   Ja Nee

6. Hoogste aardrykskunde-klas onderrig gedurende proeftydperk:

   St. 6 St. 7 St. 8 St. 9 St. 10

7. In watter taal onderrig u?

   Engels Afrikaans

8. Watter ander vakke is u van voorneme om te onderrig wanneer u begin onderwys gee?

   .....

UNIVERSITY OF CAPE TOWN

GEOGRAPHY STUDENT TEACHER SURVEY

The purpose of this survey is to gain information about teacher attitudes towards teaching, geography as a subject, geography teacher training and the types of geography teaching methods used in schools. As such there are no right or wrong answers. When answering questions please reflect your own feelings and not what you perceive to be the correct answer. This survey is private and confidential.

Please answer every question by crossing the appropriate response.

For example:-

Male Female

THANK YOU FOR YOUR CO-OPERATION.

PERSONAL DATA:

1. Male Female

2. Years of formal geography education. i.e., Geography III = 3

None 1 2 3 4 5 6 7

3. Did you take geography as a Matric subject?

Yes No

4. When did you decide to become a teacher?

During your school years | First year University | Second year University | Third year University | Fourth year University

5. Do you intend teaching Geography when you qualify as a teacher?

Yes No

6. Highest geography standard taught during practical teaching;

Std. 6 Std. 7 Std. 8 Std. 9 Std. 10 Post Matric

7. Which language medium do you use when teaching?

English Afrikaans

8. What other subjects are you intending to teach once you are qualified?

.....

Page 2/.....

	Tegnieke	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwels
93.	Video bande					
94.	Bespreking en lees van afgerolde notas					
95.	Rekenaars					
96.	Koerant artikels					
97.	Artikels in tydskrifte					
	Ander (voeg by)					
	.....					
	.....					
	.....					

ATTITUDES TOWARDS TEACHING:

Please indicate the level of importance of the following factors in determining your reasons for choosing teaching as a career:

1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

Reasons for Teaching	Level of Importance				
	Low				High
9. Want to increase self-knowledge	1	2	3	4	5
0. Influence next generation	1	2	3	4	5
1. Little danger of being out of job	1	2	3	4	5
2. Like seeing progress made by children as they become aware of things	1	2	3	4	5
3. Challenge of changing situation	1	2	3	4	5
4. Possibilities for advancement	1	2	3	4	5
5. Like to feel will always have steady income	1	2	3	4	5
6. Companionship of staffroom	1	2	3	4	5
7. Change young people's attitudes	1	2	3	4	5
8. Like keeping up with subject	1	2	3	4	5
9. Guide pupils towards a suitable career	1	2	3	4	5
0. Can be fitted around other commitments	1	2	3	4	5
1. Like the holidays	1	2	3	4	5
2. Preparing pupils to build new society	1	2	3	4	5
3. Like teaching own subject and imparting knowledge	1	2	3	4	5

Dui aan hoe dikwels die volgende onderwyshulpmiddels en tegnieke na u mening gebruik behoort te word in die onderrig van aardrykskunde :-

	Tegniek/Hulpmiddel	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwels
77.	Foto's					
78.	Prente					
79.	Gevalle Studies					
80.	Kaartwerk					
81.	Veld-ekskursies					
82.	Werkopdrag vir versterking van wat geleer is					
83.	Werkopdrag as inleiding tot kennis-inwinning (ontdekkingsmetode)					
84.	Proeftafel					
85.	Oorhoofse projektor					
86.	Handboek					
87.	Films					
88.	Skyfies					
89.	Uittreksels uit boeke					
90.	Aardrykskundige speletjies					
91.	Praat en kryt					
92.	Klank-kasette					

24. I think I made a mistake becoming a teacher.

Never Very seldom Seldom Frequently Very frequently

25. I think I made a mistake becoming a geography teacher.

Never Very seldom Seldom Frequently Very frequently

STATEMENTS CONCERNING GEOGRAPHIC EDUCATION:

26. Geographical education is concerned with the development of young minds.

Agree strongly Agree Undecided Disagree Disagree strongly

27. Geography should develop a love for one's country and culture.

Agree strongly Agree Undecided Disagree Disagree strongly

28. Geography should encourage a wonder of creation.

Agree strongly Agree Undecided Disagree Disagree strongly

29. Geographical education is concerned with teaching concepts and skills useful to society.

Agree strongly Agree Undecided Disagree Disagree strongly

30. Geography lessons should instil respect for moral values and tolerance of other races, religions and ways of life.

Agree strongly Agree Undecided Disagree Disagree strongly

31. Geography should deal critically with political ideals as they pertain to spatial patterns and organisation.

Agree strongly Agree Undecided Disagree Disagree strongly

32. Geography should develop an awareness of social justice in pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

33. Geography should supply pupils with facts about the world they live in.

Agree strongly Agree Undecided Disagree Disagree strongly

34. The geography school syllabuses should contain more spatial theory.

Agree strongly Agree Undecided Disagree Disagree strongly

35. Pupils should be presented with more regional geography at the school level.

Agree strongly Agree Undecided Disagree Disagree strongly

Dui aan die belangrikheidsgraad van die volgende invloede op die manier waarop u aardrykskunde sal doseer.

Sterkte van invloed:-

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

	Invloede op styl van onderrig	Vlak van belangrikheid				
		Laag				Hoog
65.	Onderwysers wie u bewonder het toe u op skool was	1	2	3	4	5
66.	Idees aangeleer in u onderwysersopleidings-kursus	1	2	3	4	5
67.	Idees wat u uit boeke en tydskrifte gekry het	1	2	3	4	5
68.	Die onderwysstyle van ander onderwysers met wie u in kontak was	1	2	3	4	5
69.	Die beskikbaarheid van toerusting en ander onderrigmateriaal soos voorbereide werkop-dragte	1	2	3	4	5
70.	Die klaskamergedrag van leerlinge en hul reaksie teenoor verskillende onderrigstyle	1	2	3	4	5
71.	Die materiaal bevat in handboeke	1	2	3	4	5
72.	Indiensopleidingskursusse en aardryks-kundeonderwysersverenigings	1	2	3	4	5
73.	Instruksie oor metode van onderrig van die Departementshoof	1	2	3	4	5
74.	Onderwysersgids van die Departement van Onderwys	1	2	3	4	5
75.	Eksamens	1	2	3	4	5
76.	Begeerte om bevordering te verkry	1	2	3	4	5

Statements concerning geographic education - Continued.

36. Geography at school level should aim to develop problem-solving skills.

Agree strongly Agree Undecided Disagree Disagree strongly

37. Geography lessons should teach generalities common to many regions rather than the particularities of any one region.

Agree strongly Agree Undecided Disagree Disagree strongly

38. Geography syllabuses should be designed to facilitate social awareness on the part of pupils.

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40. Geography should encourage environmental awareness and conservation ethics in pupils.

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41. The learning of graphic skills such as map-work should comprise a larger segment of geography syllabuses than at present.

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42. Syllabus changes in school geography are desirable as they enable the subject to remain relevant to the needs of pupils and society.

Agree strongly Agree Undecided Disagree Disagree strongly

43. School geography content should be separate and different from that taught at University.

Agree strongly Agree Undecided Disagree Disagree strongly

44. School geography is a highly relevant subject in relation to the needs of pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

45. Geography is the most exciting subject to teach in the school curriculum.

Agree strongly Agree Undecided Disagree Disagree strongly

Page 5/.

	Onderwysopleidingsinhoud	Vlak van belangrikheid				
		Laag				Hoog
56.	Skoolaardrykskunde projekte (tydskrifte, ens.)	1	2	3	4	5
57.	Ruimtelike konsep-ontwikkeling by leerlinge soos hulle deur die skool vorder	1	2	3	4	5
58.	Besondere aardrykskundige vermoëns (kaartwerk, ens.)	1	2	3	4	5
59.	Ontwikkeling van professionele houdings teenoor onderrig van aardrykskunde	1	2	3	4	5
60.	Begaafde leerlinge in Aardrykskunde	1	2	3	4	5
61.	Stadige leerders in aardrykskunde	1	2	3	4	5
62.	Onderrig van aardrykskunde in agterlike skole	1	2	3	4	5
	Ander (voeg by)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Aardrykskunde-onderwysersopleiding is ver verwyder van die realiteite van klaskameronderrig.

Beslis ja Ja Weet nie Nee Beslis nee

64. Die aardrykskunde-onderwyseropleidingskursus wat ek bygewoon het was van min waarde vir my.

Beslis ja Ja Weet nie Nee Beslis nee

ATTITUDES TOWARDS TEACHING METHODS:

46. It is idealistic to assume that teaching methods such as fieldwork, geographical games and role plays should constitute a significant part of school geography teaching strategies.

Agree strongly | Agree | Undecided | Disagree | Disagree strongly

47. Normally the ideal time ratio for "teacher talking" as opposed to "pupil working" in a 40 minute period is:-

30 : 10 | 25 : 15 | 20 : 20 | 15 : 25 | 10 : 30

48. As a geography teacher I will largely conform to the teaching methods used by others in the department/school.

Agree strongly | Agree | Undecided | Disagree | Disagree strongly

49. Discovery methods of teaching which utilise pupil-centred approaches are fine in theory but are not practicable in reality.

Agree strongly | Agree | Undecided | Disagree | Disagree strongly

50. New pupil-centred geography teaching methods achieve greater learning in pupils when compared with the results obtained by more traditional methods.

Agree strongly | Agree | Undecided | Disagree | Disagree strongly

ATTITUDES TOWARDS GEOGRAPHY TEACHER TRAINING:

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53. Practical geography teaching	1	2	3	4	5
54. Philosophy of geographic education	1	2	3	4	5
55. Talks by practising geography teachers	1	2	3	4	5

HOUDINGS TEENOOR ONDERWYSMETODES:

46. Dit is idealisties om te aanvaar dat onderwysmetodes soos veldwerk, aardrykskundige speletjies en rolvertolkings 'n belangrike deel van skoolaardrykskunde-onderrigstrategieë moet uitmaak.

Beslis ja Ja Weet nie Nee Beslis nee

47. Gewoonlik is die ideale tydsverhouding van "onderwyser wat praat" teenoor "leerling wat werk" in 'n 40 minute periode:-

30 : 10 25 : 15 20 : 20 15 : 25 10 : 30

48. As aardrykskunde-onderwyser sal ek hoofsaaklik hou by die onderrigmetodes gebruik deur ander in die departement/skool.

Beslis ja Ja Weet nie Nee Beslis nee

49. Ontdekkingsmetodes van onderrig wat leerlingsentreerde benaderings gebruik is goed in teorie, maar nie prakties in die werklike situasie nie.

Beslis ja Ja Weet nie Nee Beslis nee

50. Die nuwe leerlingsentreerde aardrykskunde onderrigmetodes bereik hoër inname by leerlinge vergeleke met die resultate behaal deur meer tradisionele metodes.

Beslis ja Ja Weet nie Nee Beslis nee

HOUDINGS TEENOOR AARDRYKSKUNDE ONDERWYSEROPLEIDING:

Dui aan die belangrikheid wat u sal heg aan die volgende komponente as u 'n aardrykskunde-onderwysersopleidingsprogram moes opstel.

Belangrikheidsgraad:-
1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

	Onderwysopleidingsinhoud	Vlak van belangrikheid				
		Laag				Hoog
51.	Aardrykskunde-inhoud van skoolsillabus	1	2	3	4	5
52.	Metodes van aardrykskunde-onderrig	1	2	3	4	5
53.	Praktiese aardrykskunde-onderrig	1	2	3	4	5
54.	Filosofie van aardrykskunde-onderrig	1	2	3	4	5
55.	Voorlesing deur praktiserende aardrykskunde onderwysers	1	2	3	4	5

Attitudes towards Geography Teacher Training - Continued.

	Teacher Training Content	Level of Importance				
		Low				High
56.	School geography tasks (journals etc.)	1	2	3	4	5
57.	Spatial concept development of pupils as they progress through school.	1	2	3	4	5
58.	Special geography skills (map work etc.)	1	2	3	4	5
59.	Development of professional attitudes towards geography teaching.	1	2	3	4	5
60.	Gifted pupils in geography	1	2	3	4	5
61.	Slow learners in geography	1	2	3	4	5
62.	Teaching geography in disadvantaged schools	1	2	3	4	5
	Other (please add)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Geography teacher-training courses are far removed from the realities of classroom teaching.

Agree strongly Agree Undecided Disagree Disagree strongly

64. The geography teacher-training course I participated in has been of little value to me.

Agree strongly Agree Undecided Disagree Disagree strongly

36. Aardrykskunde op skoolvlak behoort ten doel te hê om probleemoplossingsvaardigheid te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

37. Aardrykskunde-lesse behoort algemene feite wat gemeen is aan baie streke te onderrig eerder as die besonderlikhede van enige enkele streek.

Beslis ja Ja Weet nie Nee Beslis nee

38. Sillabusse vir aardrykskunde behoort ontwerp te wees om sosiale bewustheid by die leerling te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

39. Aardrykskunde behoort die leerling se kritiese waardering van sy omgewing te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

40. Aardrykskunde behoort omgewingsbewustheid en bewaringsetiek in leerlinge aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

41. Sillabusse vir aardrykskunde behoort die aanleer van grafiese vaardighede, soos kaartwerk, meer te beklemtoon as tans.

Beslis ja Ja Weet nie Nee Beslis nee

42. Sillabusaanpassinge in skoolaardrykskunde is wenslik aangesien dit die vak relevant hou tot die behoeftes van leerlinge en die gemeenskap.

Beslis ja Ja Weet nie Nee Beslis nee

43. Skoolaardrykskunde-inhoud behoort afsonderlik en verskillend te wees van dié op universiteit aangebied.

Beslis ja Ja Weet nie Nee Beslis nee

44. Skoolaardrykskunde is 'n hoogs relevante vak in verhouding tot die behoeftes van die leerlinge.

Beslis ja Ja Weet nie Nee Beslis nee

45. Aardrykskunde is die mees opwindende vak om te onderrig in die skoolkurrikulum.

Beslis ja Ja Weet nie Nee Beslis nee

Indicate the importance of the following influences upon the way in which you expect to teach geography.

Strength of influence:-
1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

	Influences on Teaching Style	Strength of Influence Low				High
65.	Teachers whom you admired while you were a pupil	1	2	3	4	5
66.	Ideas gained during your teacher-training course	1	2	3	4	5
67.	Ideas you have gained by reading books and journals	1	2	3	4	5
68.	The teaching styles of other geography teachers with whom you have come in contact	1	2	3	4	5
69.	The availability of equipment and other teaching material such as prepared work-sheets	1	2	3	4	5
70.	The classroom behaviour of pupils and their response to different teaching styles	1	2	3	4	5
71.	The material contained in text books	1	2	3	4	5
72.	Inservice training courses and geography teacher associations	1	2	3	4	5
73.	Instruction on how to teach given by your subject head	1	2	3	4	5
74.	Teacher guides from the education department	1	2	3	4	5
75.	Examinations	1	2	3	4	5
76.	Desire to obtain promotion	1	2	3	4	5

24. Ek dink ek het fouteer om onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

25. Ek dink ek het fouteer om aardrykskunde-onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

STELLINGS AANGAANDE AARDRYKSKUNDIGE OPVOEDKUNDE:

26. Aardrykskundige opvoeding is gemoeid met die verstandelike ontwikkeling van jongmense

Beslis ja Ja Weet nie Nee Beslis nee

27. Aardrykskunde behoort 'n liefde vir eie land en kultuur te kweek.

Beslis ja Ja Weet nie Nee Beslis nee

28. Aardrykskunde behoort 'n bewondering van die skepping aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

29. Aardrykskundige opvoeding is bemoeid met die oordra van begrippe en vaardighede van gemeenskapsbelang.

Beslis ja Ja Weet nie Nee Beslis nee

30. Aardrykskunde-lesse behoort respek vir morele waardes en verdraagsaamheid teenoor ander rasse, godsdienste en lewenswyses daar te stel.

Beslis ja Ja Weet nie Nee Beslis nee

31. Aardrykskunde behoort krities te kyk na politieke ideale soos hulle ruimtelike patrone en organisasie raak.

Beslis ja Ja Weet nie Nee Beslis nee

32. Aardrykskunde behoort 'n bewustheid van sosiale geregtigheid in leerlinge te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

33. Aardrykskunde behoort leerlinge te voorsien van feite aangaande die wêreld waarin hul lewe.

Beslis ja Ja Weet nie Nee Beslis nee

34. Die skoolsillabus vir aardrykskunde behoort meer ruimtelike teorie te bevat.

Beslis ja Ja Weet nie Nee Beslis nee

35. Leerlinge behoort meer in streeksaardrykskunde onderrig te word.

Beslis ja Ja Weet nie Nee Beslis nee

Indicate the frequency with which you feel the following teaching aids and techniques should be used when teaching geography :-

	Technique/Aid	Never	Very Seldom	Seldom	Often	Very Often
77.	Photographs					
78.	Pictures					
79.	Case studies					
80.	Map work					
81.	Field trips					
82.	Worksheet for reinforcement of learnt material					
83.	Worksheet as introduction to learning (discovery method)					
84.	Sample table					
85.	Overhead projector					
86.	Text book					
87.	Films					
88.	Slides					
89.	Passages from books					
90.	Geographical games					
91.	Talk and Chalk					
92.	Sound-tapes					
93.	Video films					
94.	Discussion and reading of roneod notes					
95.	Computers					
96.	Newspaper articles					
97.	Journal and magazine articles					
	Others (please add)					

HOUDINGS TEENOOR ONDERWYS:

Dui asseblief die belangrikheidsgraad van die hieropvolgende faktore aan in u besluit om onderwys as beroep te kies.

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

Redes vir Onderwys gee		Belangrikheidsgraad				
		Laag				Hoog
9.	Wil selfkennis verbreed	1	2	3	4	5
10.	Wil volgende geslag beïnvloed	1	2	3	4	5
11.	Min gevaar van sonder-werk-wees	1	2	3	4	5
12.	Stel belang in die vordering van kinders soos hulle bewus word van dinge	1	2	3	4	5
13.	Uitdaging van 'n veranderende situasie	1	2	3	4	5
14.	Moontlikhede van bevordering	1	2	3	4	5
15.	Wil seker wees van vaste inkomste	1	2	3	4	5
16.	Kameraadskap van personeelkamer	1	2	3	4	5
17.	Verander benaderings van jongmense	1	2	3	4	5
18.	Bewus te bly van nuutste ontwikkelings in vak	1	2	3	4	5
19.	Help skoliere om geskikte loopbane te kies	1	2	3	4	5
20.	Kan inpas by ander verpligtinge	1	2	3	4	5
21.	Hou van die vakansies	1	2	3	4	5
22.	Berei leerlinge voor om nuwe gemeenskap op te bou	1	2	3	4	5
23.	Hou van eie vak doseer en kennis oordra	1	2	3	4	5

UNIVERSITEIT KAAPSTAD

AARDRYKSKUNDE ONDERWYSSTUDENT VRAELYS

Die doel van hierdie ondersoek is om inligting aangaande die houding van onderwysers ten opsigte van onderwys-aardrykskunde as vak, die opleiding van aardrykskunde-onderwysers en die verskillende aardrykskunde metodieke in skole toegepas, in te win. Daar is as sulks geen regte of verkeerde antwoorde nie. Met die beantwoording van die vrae moet u asb. u eie gevoelens weergee en nie wat u voel die korrekte antwoord behoort te wees nie. Hierdie opname is privaat en vertroulik.

Beantwoord asb. elke vraag deur die toepaslike antwoord met 'n kruisie aan te

Byvoorbeeld:-

Manlik ~~Vroulik~~

DANKIE VIR U SAMEWERKING.

PERSOONLIKE DATA:

1. Manlik Vroulik

2. Aantal jare formele aardrykskunde-opleiding, bv.: Geografie III = 3

   Geen 1 2 3 4 5 6 7

3. Was aardrykskunde een van jou matric vakke?

   Ja Nee

4. Wanneer het u besluit om 'n onderwyser te word?

Gedurende jou skool jare	Eerste Jaar Universiteit	Tweede Jaar Universiteit	Derde Jaar Universiteit	Vierde Jaa Universite

5. Is u van voorneme om aardrykskunde te dosseer wanneer u kwalifiseer as onderwyser?

   Ja Nee

6. Hoogste aardrykskunde-klas onderrig gedurende proeftydperk:

   St. 6 St. 7 St. 8 St. 9 St. 10

7. In watter taal onderrig u?

   Engels Afrikaans

8. Watter ander vakke is u van voorneme om te onderrig wanneer u begin onderwys gee?

   .....

UNIVERSITY OF CAPE TOWN

GEOGRAPHY TEACHER SURVEY

The purpose of this survey is to gain information about teacher attitudes towards teaching geography as a subject, geography teacher training and the types of geography teaching methods used in schools. As such there are no right or wrong answers. When answering questions please reflect your own feelings and not what you perceive to be the correct answer. Do not identify yourself or your school as the survey is private and confidential.

Please answer every question by crossing the appropriate response.

For example:-

Male ~~Female~~

THANK YOU FOR YOUR CO-OPERATION.

PERSONAL DATA:

1. Male Female

2. Years of formal geography education. i.e., Geography III and Geography Methods = 4.

None 1 2 3 4 5 6 7

3. Institution attended:

College of Education University

4. Academic and professional training occurred between 19..... and 19.....

5. Present post:

Teacher (First year) | Teacher | Senior Teacher | H.O.D. (Vice-Principal) | Deputy Principal | Principal

6. Highest geography standard usually taught.

Std. 6 Std. 7 Std. 8 Std. 9 Std. 10 Post Matric

7. Which language medium do you use when teaching?

English Afrikaans

8. Is your school situated in:

A small town (Under 20,000 people) | Large town (20,000 - 100,000 people) | Metropolitan Region (100,000 people and above)

UNIVERSITEIT KAAPSTAD

AARDRYKSKUNDE-ONDERWYSERVRAELYS

Die doel van hierdie ondersoek is om inligting aangaande die houding van onderwysers ten opsigte van onderwys-aardrykskunde as vak, die opleiding van aardrykskunde-onderwysers en die verskillende aardrykskunde metodieke in skole toegepas, in te win. Daar is as sulks geen regte of verkeerde antwoorde nie. Met die beantwoording van die vrae moet u asb. u eie gevoelens weergee en nie wat u voel die korrekte antwoord behoort te wees nie. Moet asseblief nie u naam of u skool bekend maak nie, aangesien hierdie vraelys vertroulik is.

Beantwoord asb. elke vraag deur die toepaslike antwoord met 'n kruisie aan te dui.

Byvoorbeeld:-

Manlik X Vroulik

DANKIE VIR U SAMEWERKING.

PERSOONLIKE DATA:

1. Manlik Vroulik

2. Aantal jare formele aardrykskunde-opleiding, bv.: Geografie III en Geografie Metodiek = 4.

Geen 1 2 3 4 5 6 7

3. Inrigtings bygewoon:

Onderwyskollege Universiteit

4. Akademiese- en professionele opleiding het geskied vanaf 19... tot 19...

5. Huidige betrekking

Onderwyser (Eerste jaar) Onderwyser Senior Onderwyser Departementshoof (Vise-Prinsipaal)

Adjunkhoof Prinsipaal

6. Hoogste klas aan wie u gewoonlik aardrykskunde doseer?

St. 6 St. 7 St. 8 St. 9 St. 10 Ná matriek

7. In watter taal onderrig u?

Engels Afrikaans

8. Is u skool geleë in:

'n Klein dorp (minder as 20,000 mense) Groot dorp (20,000-100,000 mense) Metropolitaanse Streek (100,000 mense en meer)

2/...

ATTITUDES TOWARDS TEACHING:

Please indicate the level of importance of the following factors in determining your reasons for choosing teaching as a career:

1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

Reasons for Teaching	Level of Importance				
	Low				High
9. Want to increase self-knowledge	1	2	3	4	5
10. Influence next generation	1	2	3	4	5
11. Little danger of being out of job	1	2	3	4	5
12. Like seeing progress made by children as they become aware of things	1	2	3	4	5
13. Challenge of changing situation	1	2	3	4	5
14. Possibilities for advancement	1	2	3	4	5
15. Like to feel will always have steady income	1	2	3	4	5
16. Companionship of staffroom	1	2	3	4	5
17. Change young people's attitudes	1	2	3	4	5
18. Like keeping up with subject	1	2	3	4	5
19. Guide pupils towards a suitable career	1	2	3	4	5
20. Can be fitted around other commitments	1	2	3	4	5
21. Like the holidays	1	2	3	4	5
22. Preparing pupils to build new society	1	2	3	4	5
23. Like teaching own subject and imparting knowledge	1	2	3	4	5

HOUDINGS TEENOOR ONDERWYS:

Dui asseblief die belangrikheidsgraad van die hieropvolgende faktore aan in u besluit om onderwys as beroep te kies.

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

Redes vir Onderwys gee		Belangrikheidsgraad				
		Laag				Hoog
9.	Wil selfkennis verbreed	1	2	3	4	5
10.	Wil volgende geslag beïnvloed	1	2	3	4	5
11.	Min gevaar van sonder-werk-wees	1	2	3	4	5
12.	Stel belang in die vordering van kinders soos hulle bewus word van dinge	1	2	3	4	5
13.	Uitdaging van 'n veranderende situasie	1	2	3	4	5
14.	Moontlikhede van bevordering	1	2	3	4	5
15.	Wil seker wees van vaste inkomste	1	2	3	4	5
16.	Kameraadskap van personeelkamer	1	2	3	4	5
17.	Verander benaderings van jongmense	1	2	3	4	5
18.	Bewus te bly van nuutste ontwikkelings in vak	1	2	3	4	5
19.	Help skoliere om geskikte loopbane te kies	1	2	3	4	5
20.	Kan inpas by ander verpligtinge	1	2	3	4	5
21.	Hou van die vakansies	1	2	3	4	5
22.	Berei leerlinge voor om nuwe gemeenskap op te bou	1	2	3	4	5
23.	Hou van eie vak doseer en kennis oordra	1	2	3	4	5

3/...

Attitudes towards Teaching - Continued.

24. I think I made a mistake becoming a teacher.

Never Very seldom Seldom Frequently Very frequently

25. I think I made a mistake becoming a geography teacher.

Never Very seldom Seldom Frequently Very frequently

STATEMENTS CONCERNING GEOGRAPHIC EDUCATION:

26. Geographical education is concerned with the development of young minds.

Agree strongly Agree Undecided Disagree Disagree strongly

27. Geography should develop a love for one's country and culture.

Agree strongly Agree Undecided Disagree Disagree strongly

28. Geography should encourage a wonder of creation.

Agree strongly Agree Undecided Disagree Disagree strongly

29. Geographical education is concerned with teaching concepts and skills useful to society.

Agree strongly Agree Undecided Disagree Disagree strongly

30. Geography lessons should instil respect for moral values and tolerance of other races, religions and ways of life.

Agree strongly Agree Undecided Disagree Disagree strongly

31. Geography should deal critically with political ideals as they pertain to spatial patterns and organisation.

Agree strongly Agree Undecided Disagree Disagree strongly

32. Geography should develop an awareness of social justice in pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

33. Geography should supply pupils with facts about the world they live in.

Agree strongly Agree Undecided Disagree Disagree strongly

34. The geography school syllabuses should contain more spatial theory.

Agree strongly Agree Undecided Disagree Disagree strongly

35. Pupils should be presented with more regional geography at the school level.

Agree strongly Agree Undecided Disagree Disagree strongly

Houdings teenoor onderwys - Vervolg

24. Ek dink ek het fouteer om onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

25. Ek dink ek het fouteer om aardrykskunde-onderwyser/es te word.

Nooit Baie selde Selde Dikwels Baie dikwels

STELLINGS AANGAANDE AARDRYKSKUNDIGE OPVOEDKUNDE:

26. Aardrykskundige opvoeding is gemoeid met die verstandelike ontwikkeling van jongmense

Beslis ja Ja Weet nie Nee Beslis nee

27. Aardrykskunde behoort 'n liefde vir eie land en kultuur te kweek.

Beslis ja Ja Weet nie Nee Beslis nee

28. Aardrykskunde behoort 'n bewondering van die skepping aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

29. Aardrykskundige opvoeding is bemoeid met die oordra van begrippe en vaardighede van gemeenskapsbelang.

Beslis ja Ja Weet nie Nee Beslis nee

30. Aardrykskunde-lesse behoort respek vir morele waardes en verdraagsaamheid teenoor ander rasse, godsdienste en lewenswyses daar te stel.

Beslis ja Ja Weet nie Nee Beslis nee

31. Aardrykskunde behoort krities te kyk na politieke ideale soos hulle ruimtelike patrone en organisasie raak.

Beslis ja Ja Weet nie Nee Beslis nee

32. Aardrykskunde behoort 'n bewustheid van sosiale geregtigheid in leerlinge te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

33. Aardrykskunde behoort leerlinge te voorsien van feite aangaande die wêreld waarin hul lewe.

Beslis ja Ja Weet nie Nee Beslis nee

34. Die skoolsillabus vir aardrykskunde behoort meer ruimtelike teorie te bevat.

Beslis ja Ja Weet nie Nee Beslis nee

35. Leerlinge behoort meer in streeksaardrykskunde onderrig te word.

Beslis ja Ja Weet nie Nee Beslis nee

4/...

Statements concerning geographic education - Continued.

36. Geography at school level should aim to develop problem-solving skills.

Agree strongly Agree Undecided Disagree Disagree strongly

37. Geography lessons should teach generalities common to many regions rather than the particularities of any one region.

Agree strongly Agree Undecided Disagree Disagree strongly

38. Geography syllabuses should be designed to facilitate social awareness on the part of pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

39. Geography should develop pupils' critical appreciation of their environment.

Agree strongly Agree Undecided Disagree Disagree strongly

40. Geography should encourage environmental awareness and conservation ethics in pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

41. The learning of graphic skills such as map-work should comprise a larger segment of geography syllabuses than at present.

Agree strongly Agree Undecided Disagree Disagree strongly

42. Syllabus changes in school geography are desirable as they enable the subject to remain relevant to the needs of pupils and society.

Agree strongly Agree Undecided Disagree Disagree strongly

43. School geography content should be separate and different from that taught at University.

Agree strongly Agree Undecided Disagree Disagree strongly

44. School geography is a highly relevant subject in relation to the needs of pupils.

Agree strongly Agree Undecided Disagree Disagree strongly

45. Geography is the most exciting subject to teach in the school curriculum.

Agree strongly Agree Undecided Disagree Disagree strongly

Stellings aangaande aardrykskundige opvoedkunde - Vervolg

36. Aardrykskunde op skoolvlak behoort ten doel te hê om probleemoplossingsvaardigheid te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

37. Aardrykskunde-lesse behoort algemene feite wat gemeen is aan baie streke te onderrig eerder as die besonderlikhede van enige enkele streek.

Beslis ja Ja Weet nie Nee Beslis nee

38. Sillabusse vir aardrykskunde behoort ontwerp te wees om sosiale bewustheid by die leerling te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

39. Aardrykskunde behoort die leerling se kritiese waardering van sy omgewing te ontwikkel.

Beslis ja Ja Weet nie Nee Beslis nee

40. Aardrykskunde behoort omgewingsbewustheid en bewaringsetiek in leerlinge aan te moedig.

Beslis ja Ja Weet nie Nee Beslis nee

41. Sillabusse vir aardrykskunde behoort die aanleer van grafiese vaardighede, soos kaartwerk, meer te beklemtoon as tans.

Beslis ja Ja Weet nie Nee Beslis nee

42. Sillabusaanpassinge in skoolaardrykskunde is wenslik aangesien dit die vak relevant hou tot die behoeftes van leerlinge en die gemeenskap.

Beslis ja Ja Weet nie Nee Beslis nee

43. Skoolaardrykskunde-inhoud behoort afsonderlik en verskillend te wees van dié op universiteit aangebied.

Beslis ja Ja Weet nie Nee Beslis nee

44. Skoolaardrykskunde is 'n hoogs relevante vak in verhouding tot die behoeftes van die leerlinge.

Beslis ja Ja Weet nie Nee Beslis nee

45. Aardrykskunde is die mees opwindende vak om te onderrig in die skoolkurrikulum.

Beslis ja Ja Weet nie Nee Beslis nee

ATTITUDES TOWARDS TEACHING METHODS:

46. It is idealistic to assume that teaching methods such as fieldwork, geographical games and role plays should constitute a significant part of school geography teaching strategies.

Agree strongly Agree Undecided Disagree Disagree strongly

47. Normally the ideal time ratio for "teacher talking" as opposed to "pupil working" in a 40 minute period is:-

30 : 10 25 : 15 20 : 20 15 : 25 10 : 30

48. As a geography teacher I largely conform to the teaching methods used by others in the department/school.

Agree strongly Agree Undecided Disagree Disagree strongly

49. Discovery methods of teaching which utilise pupil-centred approaches are fine in theory but are not practicable in reality.

Agree strongly Agree Undecided Disagree Disagree strongly

50. New pupil-centred geography teaching methods achieve greater learning in pupils when compared with the results obtained by more traditional methods.

Agree strongly Agree Undecided Disagree Disagree strongly

ATTITUDES TOWARDS GEOGRAPHY TEACHER TRAINING:

Indicate the importance you would place on the following components if you were to plan a geography teacher-training programme.

Level of importance:-
1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

Teacher Training Content	Level of Importance				
	Low				High
51. Geographical content of school syllabus	1	2	3	4	5
52. Methods of geography teaching	1	2	3	4	5
53. Practical geography teaching	1	2	3	4	5
54. Philosophy of geographic education	1	2	3	4	5
55. Talks by practising geography teachers	1	2	3	4	5

HOUDINGS TEENOOR ONDERWYSMETODES:

46. Dit is idealisties om te aanvaar dat onderwysmetodes soos veldwerk, aardrykskundige speletjies en rolvertolkings 'n belangrike deel van skoolaardrykskunde-onderrigstrategieë moet uitmaak.

Beslis ja Ja Weet nie Nee Beslis nee

47. Gewoonlik is die ideale tydsverhouding van "onderwyser wat praat" teenoor "leerling wat werk" in 'n 40 minute periode:-

30 : 10 25 : 15 20 : 20 15 : 25 10 : 30

48. As aardrykskunde-onderwyser hou ek my by die onderrigmetodes soos gebruik deur ander in die departement/skool.

Beslis ja Ja Weet nie Nee Beslis nee

49. Ontdekkingsmetodes van onderrig wat leerlingsentreerde benaderings gebruik is goed in teorie, maar nie prakties in die werklike situasie nie.

Beslis ja Ja Weet nie Nee Beslis nee

50. Die nuwe leerlingsentreerde aardrykskunde onderrigmetodes bereik hoër inname by leerlinge vergeleke met die resultate behaal deur meer tradisionele metodes.

Beslis ja Ja Weet nie Nee Beslis nee

HOUDINGS TEENOOR AARDRYKSKUNDE ONDERWYSEROPLEIDING:

Dui aan die belangrikheid wat u sal heg aan die volgende komponente as u 'n aardrykskunde-onderwysersopleidingsprogram moes opstel.

Belangrikheidsgraad:-
1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

Onderwysopleidingsinhoud	Vlak van belangrikheid				
	Laag				Hoog
51. Aardrykskunde-inhoud van skoolsillabus	1	2	3	4	5
52. Metodes van aardrykskunde-onderrig	1	2	3	4	5
53. Praktiese aardrykskunde-onderrig	1	2	3	4	5
54. Filosofie van aardrykskunde-onderrig	1	2	3	4	5
55. Voorlesing deur praktiserende aardrykskunde onderwysers	1	2	3	4	5

Attitudes towards Geography Teacher Training - Continued.

	Teacher Training Content	Level of Importance				
		Low				High
56.	School geography tasks (journals etc.)	1	2	3	4	5
57.	Spatial concept development of pupils as they progress through school.	1	2	3	4	5
58.	Special geography skills (map work etc.)	1	2	3	4	5
59.	Development of professional attitudes towards geography teaching.	1	2	3	4	5
60.	Gifted pupils in geography	1	2	3	4	5
61.	Slow learners in geography	1	2	3	4	5
62.	Teaching geography in disadvantaged schools	1	2	3	4	5
	Other (please add)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Geography teacher-training courses are far removed from the realities of classroom teaching.

Agree strongly Agree Undecided Disagree Disagree strongly

64. The geography teacher-training course I participated in has been of no value to me in my teaching career.

Agree strongly Agree Undecided Disagree Disagree strongly

Houdings teenoor aardrykskunde onderwyseropleiding - Vervolg

	Onderwysopleidingsinhoud	Vlak van belangrikheid				
		Laag				Hoog
56.	Skoolaardrykskunde projekte (tydskrifte, ens.)	1	2	3	4	5
57.	Ruimtelike konsep-ontwikkeling by leerlinge soos hulle deur die skool vorder	1	2	3	4	5
58.	Besondere aardrykskundige vermoëns (kaartwerk, ens.)	1	2	3	4	5
59.	Ontwikkeling van professionele houdings teenoor onderrig van aardrykskunde	1	2	3	4	5
60.	Begaafde leerlinge in Aardrykskunde	1	2	3	4	5
61.	Stadige leerders in aardrykskunde	1	2	3	4	5
62.	Onderrig van aardrykskunde in agterlike skole	1	2	3	4	5
	Ander (voeg by)					
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5
	.....	1	2	3	4	5

63. Aardrykskunde-onderwysersopleiding is ver verwyder van die realiteite van klaskameronderrig.

Beslis ja Ja Weet nie Nee Beslis nee

64. Die aardrykskunde-onderwysersopleidingskursus wat ek bygewoon het, was van geen waarde vir my in my onderwysloopbaan nie.

Beslis ja Ja Weet nie Nee Beslis nee

Indicate the importance of the following influences upon the way in which you teach geography.

Strength of influence:-
1 = Not important
2 = Little importance
3 = Important
4 = Very important
5 = Extremely important

	Influences on Teaching Style	Strength of Influence Low				High
65.	Teachers whom you admired while you were a pupil	1	2	3	4	5
66.	Ideas gained during your teacher-training course	1	2	3	4	5
67.	Ideas you have gained by reading books and journals	1	2	3	4	5
68.	The teaching styles of other geography teachers with whom you have come in contact	1	2	3	4	5
69.	The availability of equipment and other teaching material such as prepared work-sheets	1	2	3	4	5
70.	The classroom behaviour of pupils and their response to different teaching styles	1	2	3	4	5
71.	The material contained in text books	1	2	3	4	5
72.	Inservice training courses and geography teacher associations	1	2	3	4	5
73.	Instruction on how to teach given by your subject head	1	2	3	4	5
74.	Teacher guides from the education department	1	2	3	4	5
75.	Examinations	1	2	3	4	5
76.	Desire to obtain promotion	1	2	3	4	5

Dui aan die belangrikheidsgraad van die volgende invloede op die manier waarop u aardrykskunde doseer.

Sterkte van invloed:-

1 = Onbelangrik
2 = Minder belangrik
3 = Belangrik
4 = Baie belangrik
5 = Uiters belangrik

	Invloede op styl van onderrig	Vlak van belangrikheid				
		Laag				Hoog
65.	Onderwysers wie u bewonder het toe u op skool was	1	2	3	4	5
66.	Idees aangeleer in u onderwysersopleidingskursus	1	2	3	4	5
67.	Idees wat u uit boeke en tydskrifte gekry het	1	2	3	4	5
68.	Die onderwysstyle van ander onderwysers met wie u in kontak was	1	2	3	4	5
69.	Die beskikbaarheid van toerusting en ander onderrigmateriaal soos voorbereide werkopdragte	1	2	3	4	5
70.	Die klaskamergedrag van leerlinge en hul reaksie teenoor verskillende onderrigstyle	1	2	3	4	5
71.	Die materiaal bevat in handboeke	1	2	3	4	5
72.	Indiensopleidingskursusse en aardrykskundeonderwysersverenigings	1	2	3	4	5
73.	Instruksie oor metode van onderrig van die Departementshoof	1	2	3	4	5
74.	Onderwysersgids van die Departement van Onderwys	1	2	3	4	5
75.	Eksamens	1	2	3	4	5
76.	Begeerte om bevordering te verkry	1	2	3	4	5

8/...

Influences on Teaching Style - Contd.

	Strength of Influence				
	Low				High
Other (please add)					
.....	1	2	3	4	5
.....	1	2	3	4	5
.....	1	2	3	4	5
.....	1	2	3	4	5

Indicate the frequency with which you use the following teaching techniques:-

	Technique	Never	Very Seldom	Seldom	Often	Very Often
77.	Photographs					
78.	Pictures					
79.	Case Studies					
80.	Map work					
81.	Field trips					
82.	Worksheet for reinforcement of learnt material					
83.	Worksheet as introduction to learning (discovery method)					
84.	Sample table					
85.	Overhead projector					
86.	Text book					
87.	Films					
88.	Slides					
89.	Passages from books					
90.	Geographical games					
91.	Talk and Chalk					
92.	Sound-tapes					
93.	Video films					

Invloede op styl van onderrig - Vervolg

	Vlak van belangrikheid				
	Laag				Hoog
Ander (voeg by)					
.....	1	2	3	4	5
.....	1	2	3	4	5
.....	1	2	3	4	5
.....	1	2	3	4	5

Dui aan hoe dikwels u die volgende onderwystegnieke gebruik.

	Tegnieke	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwel
77.	Foto's					
78.	Prente					
79.	Gevalle Studies					
80.	Kaartwerk					
81.	Veld-ekskursies					
82.	Werkopdrag vir versterking van wat geleer is					
83.	Werkopdrag as inleiding tot kennis-inwinning (ontdekkingsmetode)					
84.	Proeftafel					
85.	Oorhoofse projektor					
86.	Handboek					
87.	Films					
88.	Skyfies					

Teaching Techniques - Contd.

	Technique	Never	Very Seldom	Seldom	Often	Very Often
94.	Discussion and reading of roneod notes					
95.	Computers					
96.	Newspaper articles					
97.	Journal and magazine articles					
	Others (please add)					

Indicate the frequency with which you feel the following teaching aids and techniques should be used.

	Technique/Aid	Never	Very Seldom	Seldom	Often	Very Often
98.	Photographs					
99.	Pictures					
00.	Case studies					
01.	Map work					
02.	Field trips					
03.	Worksheet for reinforcement of learnt material					
04.	Worksheet as introduction to learning (discovery method)					
05.	Sample table					
06.	Overhead projector					
07.	Text book					
08.	Films					

	Tegnieke	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwels
89.	Uittreksels uit boeke					
90.	Aardrykskundige speletjies					
91.	Praat en kryt					
92.	Klank-kasette					
93.	Video bande					
94.	Bespreking en lees van afgerolde notas					
95.	Rekenaars					
96.	Koerant artikels					
97.	Artikels in tydskrifte					
	Ander (voeg by)					
	.....					
	.....					
	.....					

10/...

Continued/...

	Technique/Aid	Never	Very Seldom	Seldom	Often	Very Often
9.	Slides					
10.	Passages from books					
11.	Geographical games					
12.	Talk and chalk					
13.	Sound-tapes					
14.	Video films					
15.	Discussion and reading of roneod notes					
16.	Computers					
17.	Newspaper articles					
18.	Journal and magazine articles					
	Others (please add)					

. Explain the reasons for any differences between the teaching methods you use and those you would like to use.

Dui aan hoe dikwels die volgende onderwyshulpmiddels en tegnieke na u mening gebruik moet word.

	Tegniek/Hulpmiddel	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwels
98.	Foto's					
99.	Prente					
100.	Gevalle Studies					
101.	Kaartwerk					
102.	Veld-ekskursies					
103.	Werkopdrag vir versterking van wat geleer is					
104.	Werkopdrag as inleiding tot kennis-inwinning (ontdekkingsmetode)					
105.	Proeftafel					
106.	Oorhoofse projektor					
107.	Handboek					
108.	Films					
109.	Skyfies					
110.	Uittreksels uit boeke					
111.	Aardrykskundige speletjies					
112.	Praat en kryt					
113.	Klank-kasette					

11/...

	Tegniek/Hulpmiddel	Nooit	Baie Selde	Selde	Dik-wels	Baie Dikwels
114.	Video bande					
115.	Bespreking en lees van afgerolde notas					
116.	Rekenaars					
117.	Koerant artikels					
118.	Joernaal en tydskrif artikels					
	Ander (voeg by)					
	.....					
	.....					
	.....					

119. Verduidelik die redes vir enige verskille tussen die onderrigmetodes wat u gebruik en die wat u graag sou wou gebruik.

APPENDIX F

LETTER TO CASE STUDY PARTICIPANTS

UNIVERSITY OF CAPE TOWN

(WITH WHICH IS INCORPORATED THE SOUTH AFRICAN COLLEGE)

TELEPHONE (021) 698531
TELEGRAMS "ALUMNI CAPE TOWN"
TELEX 57-22208

UNIVERSITY PRIVATE BAG
RONDEBOSCH, 7700
SOUTH AFRICA

DEPARTMENT OF ENVIRONMENTAL AND GEOGRAPHICAL SCIENCE

19th December, 1984.

Dear

As you know I am presently engaged in Ph.D. research into the attitudinal changes that occur in geography teachers as they progress from education students to fully fledged teachers. In order to 'flesh out' the statistical analysis which I have undertaken it is important for me to obtain information about the 'school experience' of beginner geography teachers. In order to obtain this information I need a few beginner teachers to keep weekly diaries about their teaching experiences and I wondered whether you would be so kind as to help me in this regard.

The diary you keep should be a personal account of your experiences as a new geography teacher. In particular I am interested in your day-to-day experiences and the way in which they influence the following:-

- your attitudes towards the aims and objectives of school geography.
- your attitudes towards the value of the geography teacher training course you attended.
- the influence of other teachers and school personnel upon your perception of geography education and the methods you use in geography lessons.
- the influence of pupils in affecting the teaching methods you use.
- the influence of time, finance, syllabus content, textbooks and examinations upon your teaching style.
- the effect of inservice courses, advisory services and geographical associations upon your teaching style.
- any problem areas that you experience in the teaching of geography or resources and influences that have helped you in your transition from student to teacher.

From the above you will have gathered that I am mainly interested in the effects of your school experience upon the way in which you teach geography. Any experiences which reflect the joys and successes you will have or

2/.....

problems you experience in trying to teach geography in a concept based, pupil centred manner, will help me in my research.

If you are willing to help me by keeping a weekly diary report could you please let me know as soon as possible. Hopefully your diary will not only be of use to me but will be of lasting interest to you as a record of your first year at the chalk-face. I wish to assure you that all your information will be kept strictly confidential.

Thanking you in anticipation for your help,

Roy

ROY BALLANTYNE
Lecturer

p.s. If you have any queries in regard to the diary please contact me.

APPENDIX G

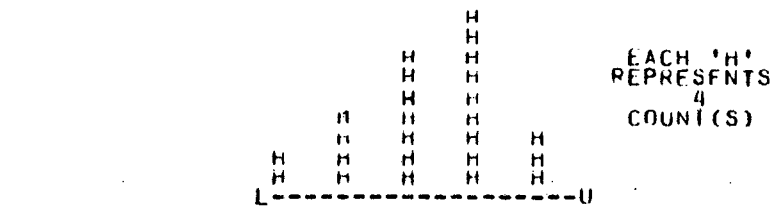
P2D PRINTOUT EXAMPLE

****
* X(17) *
****

VARIABLE NUMBER	17	MAXIMUM	5.0000000
NUMBER OF DISTINCT VALUES	5	MINIMUM	1.0000000
NUMBER OF VALUES COUNTED	91	RANGE	4.0000000
NUMBER OF VALUES NOT COUNTED	0	VARIANCE	1.2185592
		ST.DEV.	1.1038837
		(Q3-Q1)/2	.5000000
		MX.ST.SC.	1.57
		MN.ST.SC.	-2.05

LOCATION ESTIMATES

		ST.ERROR
MEAN	3.2637362	.1157185
MEDIAN	3.0000000	.2886752
MODE	4.0000000	



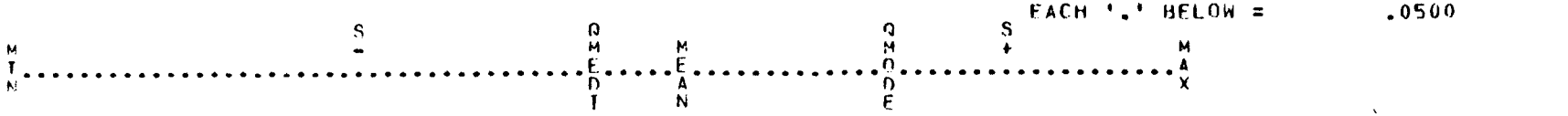
EACH '-' ABOVE = .2500
L= .7500
U= 5.5000

CASE NO. OF MIN. VAL. = 8
CASE NO. OF MAX. VAL. = 6

	VALUE	VALUE/S.E.
SKEWNESS	-.38	-1.48
KURTOSIS	-.61	-1.19

Q1= 3.0000000
Q3= 4.0000000
S-= 2.1598526
S+= 4.3676199

EACH '.' BELOW = .0500



VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM	VALUE	COUNT	PERCENTS CELL	CUM
1.	7	7.7	7.7	3.	26	28.6	52.7	5.	10	11.0	100.0				
2.	15	16.5	24.2	4.	33	36.3	89.0								

APPENDIX H

P3D PRINTOUT EXAMPLE

DIFFERENCES OF SINGLE VARIABLES

****
X(42) VARIABLE NUMBER 42
****

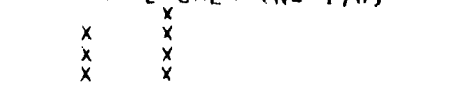
STATISTICS		P-VALUE	DF
T (SEPARATE)	-.08	.9365	40.2
(POOLED)	-.07	.9453	196
F(FOR VARIANCES)			
LEVENE	.04	.8409	1, 196

GROUP	1 FIRST	2 TEACHER
MEAN	1.8929	1.7059
STD DEV	.6215	.7266
S.E.M.	.1174	.0557
SAMPLE SIZE	28	170
MAXIMUM	3.0000	5.0000
MINIMUM	1.0000	1.0000

1 FIRST (N= 28)

AN H = 3 CASES

2 TEACHER (N= 170)



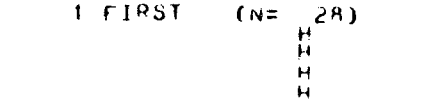
AN X = 15 CASES

****
X(43) VARIABLE NUMBER 43
****

STATISTICS		P-VALUE	DF
T (SEPARATE)	1.62	.2275	45.5
(POOLED)	.93	.3560	197
F(FOR VARIANCES)			
LEVENE	8.35	.0126	1, 197

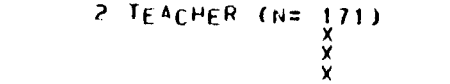
GROUP	1 FIRST	2 TEACHER
MEAN	3.8571	3.6667
STD DEV	.7052	1.0572
S.E.M.	.1333	.0808
SAMPLE SIZE	28	171
MAXIMUM	5.0000	5.0000
MINIMUM	2.0000	1.0000

1 FIRST (N= 28)



AN H = 3 CASES

2 TEACHER (N= 171)



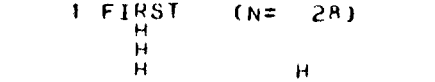
AN X = 15 CASES

****
X(44) VARIABLE NUMBER 44
****

STATISTICS		P-VALUE	DF
T (SEPARATE)	1.56	.1227	32.7
(POOLED)	1.03	.1560	196
F(FOR VARIANCES)			
LEVENE	7.53	.0070	1, 195

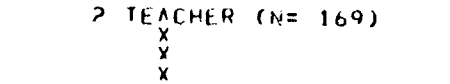
GROUP	1 FIRST	2 TEACHER
MEAN	2.6071	2.2840
STD DEV	1.1966	.9358
S.E.M.	.2262	.0718
SAMPLE SIZE	28	169
MAXIMUM	5.0000	5.0000
MINIMUM	1.0000	1.0000

1 FIRST (N= 28)



AN H = 2 CASES

2 TEACHER (N= 169)



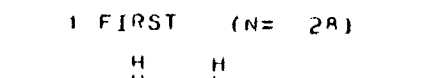
AN X = 15 CASES

****
X(45) VARIABLE NUMBER 45
****

STATISTICS		P-VALUE	DF
T (SEPARATE)	1.45	.1518	57.7
(POOLED)	1.09	.1414	196
F(FOR VARIANCES)			
LEVENE	.79	.3751	1, 196

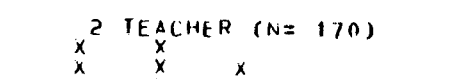
GROUP	1 FIRST	2 TEACHER
MEAN	2.7143	2.3882
STD DEV	1.0838	1.1471
S.E.M.	.2048	.0880
SAMPLE SIZE	28	170
MAXIMUM	5.0000	5.0000
MINIMUM	1.0000	1.0000

1 FIRST (N= 28)



AN H = 2 CASES

2 TEACHER (N= 170)



AN X = 9 CASES

APPENDIX I

P3S PRINTOUT EXAMPLE

VARIABLE 45 X(45)

GROUP NO.	NAME	FREQUENCY	RANK SUM
1	STUD1	69	3366.5
2	TEACH	23	911.5

KRUSKAL-WALLIS TEST STATISTIC = 2.22, LEVEL OF SIGNIFICANCE = .1366
USING CHI-SQUARE DISTRIBUTION WITH 1 DEGREES OF FREEDOM

MANN-WHITNEY TEST STATISTIC = 951.50, LEVEL OF SIGNIFICANCE = .1366
USING NORMAL TWO-TAIL APPROXIMATION

VARIABLE 46 X(46)

GROUP NO.	NAME	FREQUENCY	RANK SUM
1	STUD1	69	3433.0
2	TEACH	23	845.0

KRUSKAL-WALLIS TEST STATISTIC = 4.45, LEVEL OF SIGNIFICANCE = .0350
USING CHI-SQUARE DISTRIBUTION WITH 1 DEGREES OF FREEDOM

MANN-WHITNEY TEST STATISTIC = 1018.00, LEVEL OF SIGNIFICANCE = .0350
USING NORMAL TWO-TAIL APPROXIMATION

VARIABLE 47 X(47)

GROUP NO.	NAME	FREQUENCY	RANK SUM
1	STUD1	69	3501.5
2	TEACH	23	776.5

KRUSKAL-WALLIS TEST STATISTIC = 7.81, LEVEL OF SIGNIFICANCE = .0052
USING CHI-SQUARE DISTRIBUTION WITH 1 DEGREES OF FREEDOM

MANN-WHITNEY TEST STATISTIC = 1086.50, LEVEL OF SIGNIFICANCE = .0052
USING NORMAL TWO-TAIL APPROXIMATION

VARIABLE 48 X(48)

GROUP NO.	NAME	FREQUENCY	RANK SUM
1	STUD1	69	3607.0
2	TEACH	23	671.0

KRUSKAL-WALLIS TEST STATISTIC = 14.79, LEVEL OF SIGNIFICANCE = .0001
USING CHI-SQUARE DISTRIBUTION WITH 1 DEGREES OF FREEDOM

MANN-WHITNEY TEST STATISTIC = 1192.00, LEVEL OF SIGNIFICANCE = .0001
USING NORMAL TWO-TAIL APPROXIMATION

VARIABLE 49 X(49)

GROUP NO.	NAME	FREQUENCY	RANK SUM
1	STUD1	69	3173.5
2	TEACH	23	1104.5

KRUSKAL-WALLIS TEST STATISTIC = .12, LEVEL OF SIGNIFICANCE = .7324
USING CHI-SQUARE DISTRIBUTION WITH 1 DEGREES OF FREEDOM

MANN-WHITNEY TEST STATISTIC = 758.50, LEVEL OF SIGNIFICANCE = .7324
USING NORMAL TWO-TAIL APPROXIMATION

APPENDIX J

PROBATIONER DIARY STATEMENTS

GENERAL COMMENTS ON SCHOOL EXPERIENCE.

I feel overwhelmed by the amount of responsibility, the paper work and the administration that has to be dealt with before even stepping into the classroom! It makes me very nervous for teaching.

I am subject to many regulations concerning bureaucracy and administration. The regulations lay down a certain format of how things ought to be done.

The first week of real teaching has been rather depressing. All my thoughts about what I'd hoped to do seem to have gone by the way - what is more demoralising is that it is only after one week.

I never know how much work to set or whether the pupils are learning anything.

I feel tired and very confused - there is so much to be done and many other very busy people who say I must just ask, but I don't feel I can approach them.

I don't really think teaching is at all a rewarding career.

Its emotionally exhausting and its not fair on those at home either.

I think it is most unfair that I leave school most days feeling angry and depressed.

I have been feeling so mixed up and confused this week. Every time I walk into the staff room somebody asks me to fill in this or that, complete this - forgot to fill in your dates - bits and pieces of silly admin - its so annoying. Anyway I'm feeling on top of the world as we have four days of freedom. I have nothing to do except 400 hours of sleep to catch up and a much neglected social life.

Sometimes I think I'm beginning to sound like anything to do with school is the end of the world. Its not really so bad, its just too much work, until my system begins to feel rotten from late nights and very early mornings and lots of work.

Well I seem to have more confidence in myself and am starting to prepare a group of lessons at a time

I feel tired and sometimes don't feel like making the effort to prepare properly.

I could improve my lessons but am basically not interested.

I am beginning to understand why teachers have to resort to bad techniques - I have been given many responsibilities which mean that I have to miss classes and then have to catch up.

The other half of the period is spent by me dictating notes and putting drawings on the board. The pupils have to take all this down.

There are times when I really don't feel like teaching. My mind is not on it and I don't want to be in the classroom and then, as can be expected, its not a very good lesson.

I find that I go through stages of being very rebellious and then I don't want to prepare. I start feeling rebellious when there are so many things to do that my social life suffers i.e., when I have to work late every night and on weekends.

Every day I am teaching new lessons, which has meant doing lots of preparation each night. I have often felt as though I am continually working, there is seldom chance for a break.

My aim is to help the matrics as far as possible but I have no aims as far as the rest of the school is concerned. I

don't even feel like going to school on the days we are meant to go.

Right now I am feeling flustered and overwhelmed. I resent working so hard and I hate the fact that so much extra time is spent on having to attend school functions.

Lesson preparation I find needs a period of intense mental thought. I need to sit quietly and think. A lot of my lesson planning is done in my brain while I am teaching. I think to myself 'oh that will be a brilliant idea for tomorrow' and so I go on like that.

During this three day week I did not work at all! I was tired and needed my holiday. Could not face standing in front of the class so just took them to the library. Thank goodness for school holidays. I'm sure teachers need them more than pupils.

End of term. Thank goodness. This week I felt as though I wasn't even going to make it. I feel quite worn out and certainly seem to have lost my flame of enthusiasm. Its just one big drag!

Its nearing the end of term now and I am quite exhausted. It seems a constant battle just to hold on and I am becoming awfully apathetic. My lessons are very much put together in class and its quite bad.

Could even get up this morning because I knew I would not be teaching. Feel like giving up at this stage.

Well I've no complaints. Its the beginning of a three week break and suddenly I feel like I'm going to make it. What an incredible feeling of freedom.

I find if I don't have a proper holiday then I am not as effective as I would like to be. The result of not having a proper holiday has been that I tend to live from day to day. Holidays for me are vital and I feel drained at the moment.

At the start of the third term I was quite enthusiastic but worried about the long term ahead with no public holidays or other breaks. Had a good holiday so felt quite relaxed and eager to get going again.

I find I am less concerned about the class as time goes on.

Not much has changed and I am beginning to feel lazy and quite uninterested.

I am becoming freer in my approach towards teaching and towards the pupils. I am learning to trust the pupils more with achieving their full capabilities and I am giving them more freedom to express themselves, to teach each other, to think of alternatives that I haven't thought of etc.

As I relax I am enjoying it more although I also realise that there is a tendency to slack off on preparation and methods - for at least the first half of the year each lesson made me incredibly tense. I was as nervous for each lesson as for crit lessons (its amazing I didn't get an ulcer). Although I relaxed slightly once the lesson was under way, I always felt as though the pupils were examining my teaching very critically. I was quite sure they were noting mistakes in my teaching methods and weaknesses in my presentation of the work etc. Whether they were or not I do not know. It could possibly have been that I was very critical of myself and aware of everything that I was doing and continually testing it against the ideal theory I learnt during my training. It could also have been that I was over sensitive to any reaction from the pupils.

Unfortunately, that matric certificate is all that they take away from school and their job eligibility and further studies depend on it. So it cannot be disregarded as irrelevant, which would be ideal from a methodological point of view.

I am having problems linking different sections. I feel it is important that I try to make geography a real living subject that is relevant to them in their daily lives.

During the year I have tried to integrate and link with other subjects, especially English, where they have used geographical material to develop skills such as note taking, precis, and comprehension. In art they have made geographical models. In history they linked the trade routes with global wind patterns as well as with urban and economic development. We linked the ecology section with biology.

Some lessons I have given are disastrous but others I know satisfy all the requirements of a good lesson, but pupils don't remember the work. As a result you are not so starry-eyed about teaching anymore and you realise a lot of it demands repetition.

Sometimes I find it difficult to see the benefits of methods that are theoretically good e.g. worksheets. When the pupils work on them it is difficult to tell whether learning is taking place.

Started a section that I hate - learning names and positions of countries, but after a while came to the conclusion that they have to learn the names of countries and the capitals at some stage of their lives.

Kept away from racial issues - had to be careful in this respect.

Some aspects of the syllabus are not relevant to these pupils and their future e.g. glacial erosion, so I'm leaving it out. Concept formation is very important for these pupils.

If I could take the geography class on a trip it would make a big difference but time, money and supervision make this impossible.

I'm organinsing standard eight and nine field trips and am having ants about the whole situation. Driving the bus with fifteen excited girls is bad enough but to make it a worthwhile educational tour is making me petrified. Both field trips were, however, most successful and I quite enjoyed the break.

I am preparing field trips for all three standards I teach so that they go on at least one a year.

Field trips don't have to be limited to academic experience, in fact I think that's just a part of them, they also broaden the pupils' experience and help develop social skills etc.

I found field trips very difficult and time consuming to organise. The ones that I did do, however, were very successful and beneficial and made me motivated towards organinsing more

We had a super field trip today. It started off very well with lots for the pupils to do - their comments were very encouraging. They seemed to enjoy it and were asking questions which proved that they were learning something. Discipline was good and there were no snags.

I worked extremely hard at preparing field trips. One worked well but the other was a disaster.

Sport is the real 'holy cow' that may not be disturbed in the school system. Frequently field trips are organised in teaching time so that sports practices can take place rather than vice versa.

I also tried to organise field trips for my matrics to Crossroads which we did. However, this was very time expensive with the result that my class fell way behind.

I am trying to have less teaching by me and give the pupils more worksheets, essays and self-study.

I am quite good at taking short cuts now, but its not doing my lessons any good. Because I am always so tired I try to work in class and get the kids to do something while I prepare lessons for the next day. Then its pretty slapdash and I have to make a lot of notes as the textbooks are so bad.

This year I have been overworked and under rewarded - but there have been some most enjoyable moments in all of this.

Did not find the change from student to teacher very difficult but tried to associate with the pupils as much as possible and not stick in the staffroom. Wanted them to get used to me and wanted them to feel free to talk to me, about anything. I am the youngest teacher here - that made my task much easier.

Have had a fantastic time - except for the boycotts which made me feel useless.

My feelings as I look back on the year are that having expected to hate my first year teaching I haven't - on the contrary I have really enjoyed it.

I have been fortunate in being at a school where we are encouraged to try new ideas, we are given responsibility and freedom and those in authority trust us to be professional. I have learned a lot and it has encouraged me to expand my ideas and to use my initiative.

I am looking forward to my second year because I now have more confidence in my knowledge of content and all the various aspects of teaching and I feel that instead of spending time in familiarising myself with content of lessons and presentation of content, I will be able to spend more on preparing different methods of teaching and try to find the most appropriate method for particular content.

My first year has been one of battling to keep above water.

To sum up - what are my feeling about teaching? At this stage I want OUT!! My emotions are like a yo-yo and I find it difficult to maintain a normal state and equilibrium. I know I am not the only one who feels this - all my first year colleagues feel the same. It is more a battle with one's emotions than anything else, i.e., up one day, down the next.

I enjoy my teaching experience now and would not change it for anything else in the world, but I will not do it for ever and ever. I hope to move up the ladder and thus away from classroom teaching.

PROBATIONARY TEACHER DIARY STATEMENTS

INFLUENCES ON TEACHING PRACTICE.

1. PUPILS.

Many of the kids are incredibly thick! Any kind of group or individual work must be explained meticulously.

There is a wide range of academic abilities in each class. The thick tail-enders (who are usually repeating the year and are very old for their class and hence a powerful disruptive element) demand a lot of your attention. This means that the brighter kids are soon bored and begin to lose interest.

Tried to cover some of the astrology and mathematical geography with the standard six class but could not (or found it hard to) bring it down to their level. I found that I was doing all the talking except for a few questions here and there.

At this stage I don't feel confident enough to let pupils take over as the class has an element of 'rugger-bugger', macho types who are trying to catch me out and are testing

me regarding my standpoints with regard to discipline. It is for this reason also that I don't want to have too much discussion in class. I need to give them work that will keep them busy so that I can regain my foothold and strength in class. I have been relying heavily on worksheets.

Pupils noisy, therefore group work limited.

The girls are very rude and sometimes say the most cutting things. As a teacher I must learn to cope with this. They haven't even noticed the trouble I went to to decorate the classroom. What an apathetic bunch.

The girls just talk, as they feel like, and seem to believe that the teachers have to stick all the knowledge in their heads for them. They are totally incapable of doing anything for themselves.

In many classes disciplining the rowdy elements (failed standard six twice for example) absorbs much of your time. Your teaching methods and attitude becomes very authoritarian simply because it has to. Any weakness like giving group work or individual work is a chance to 'jack about'.

There is an ethos in the school which results in the pupils' attitude of 'as little as possible for as long as possible'.

In standard seven my attitude changed mainly due to the disgusting reports and from speaking to the parents about the bad behaviour of the class. I made sure the class knew I was not going to tolerate any more noise. I changed the seating arrangements to separate the talkers from each other.

Controlling a class in the library is torture!

Pupils do affect me and the teaching methods I use. Group work requires that you are on good terms with the class. The behaviour of the pupils, therefore, affects the methods

I use. My geography lessons are fine but there is one class which I hate (and they hate me) and with this class I don't try anything new. The fact is, the more boring the lesson the better for them. As soon as I try something that requires participation from them, then I know it is not going to work as they refuse to participate with me because they don't like me.

What a pleasure teaching the section on tides. Not only my favourite but the pupils could relate to this section as they live in Cape Town.

Pupils were young and reluctant to take part in the lesson.

I am starting to make a breakthrough. I have ignored the impossible kids the whole week and every time they talk I write loads of notes on the board which they have to copy down.

I am beginning to feel apathetic towards the kids. I feel I am fighting a losing battle.

The kids are not wanting to work. Neither am I.

As for the girls, I am getting even better at being hard, cruel and strict. I hate it and myself for it because it is so against what I want to be like. But it seems like I have no alternative.

Had notes etc. ready but found that the pupils hated writing notes.

I have tried using group work and discussion but the kids are still shy and so it didn't work as well as it could have, but they'll relax.

I have given up on group work and problem-solving teaching methods because no matter how exciting I try to make it they find it a big drag.

I arranged to go out to Escom on Wednesday - they were all keen, but the day before not one person admitted to saying that they would come so I had to cancel it. I rearranged the outing due to insistence - guess what, no one turned up. I actually sometimes hate teaching.

They have given me nothing this year - so from now I am producing the material but no further interesting lessons - no more involvement - no more old exam papers etc.

I am actually being quite fierce and don't feel that happy about it but I refuse to feel like I have spent a term in a tumble drier again.

Decided to change my method of giving notes as the pupils were complaining so much.

The standard six and seven classes were only separated by doors - therefore had to keep noise level down during group work and discussions.

As for the matrics, every time I say anything that is not in their textbook they say 'can't you roneo that off for us?' They can't be bothered to read anything in their textbooks and are incapable of answering their worksheets.

The problems which I face are always discipline - one day the kids are fine, they want to work and then for the next two days they don't want to do anything. The upsetting thing is that I can prepare marvellous lessons and if they don't want to work, if they just want to fool around, the lesson can be drudgery because I have to discipline boys to stop fooling around. Generally I am strict so the disciplining is not a problem, it is the atmosphere which is often generated which can become a problem.

I use worksheets a lot and get them to work on their own or in groups as much as possible. These methods will always be appropriate with pupils who are interested, but some hate school, and to impress their peers, will not want to

participate. My attitude is this, well, if that's what you want why should I bother? I think this is the most destructive thing - it demotivates me and other pupils. I really have to fight with myself to remain motivated.

My emotions sure do fluctuate! Two weeks ago I was hating geography teaching - feeling thoroughly unsure about the content and having many discipline problems. The discipline problems seem to drain one of all one's energy so that eventually one tends to say 'oh, what the hell, why bother?' That attitude keeps one going but lessons lose their excitement. Things are, however, much better now. Although my lessons have resorted to the old conventional type in an effort to survive, I am feeling more confident about the content, the speed at which to move and also discipline.

Started the solar system with the standard six class. They loved this section and brought lots of books, pictures and newspaper articles to show me. I found their response very rewarding. I found I couldn't answer some of their questions, especially when they showed me a picture in the National Geographic and asked me what was going on.

I gave an off-the-cuff lesson on rivers, run-off, watersheds etc., to try liven up the lessons on S.A. rivers. The change from learning names made quite a difference.

I have had one boost - a matric has asked me if she can sit in on my lessons because she finds them so interesting.

I have had some good standard seven projects although a lot of bad ones. Next year I must provide a guide to their projects other than topics and library visits.

Pupils enjoy it when I explain and/or give notes with the use of the overhead projector - its new and colourful.

With regional geography, pupils are divided into groups. Each group has been given a topic by me (two pupils), and has had to present a poster to the class on their topic.

They loved it! They loved doing research in the library. It was a lovely way of doing Japan because they explored topics that interested them.

I thought that by involving pupils in role playing that they would never forget it, but I found that it does not work like this. Pupils enjoy lessons like this but during revision later on, it becomes clear that they have not grasped the concepts involved. I don't know how I am going to handle this. I feel that it is best to use repetition rather than fantastic teaching methods.

2. TEACHERS/COLLEAGUES.

There is little or no encouragement for a teacher to teach creatively. All the staff meetings and staff room chatter is aimed at administration or gossip. There is no sharing of teaching methods or resources. When I have offered to share my worksheets etc., other members of staff have received them gratefully, but there has been little reciprocation.

Colleagues basically had no influence on me as far as methods are concerned as I was the only geography teacher and could do my own thing.

My head of department suggested I lecture to the matrics, but I refused to do so.

My head of department feels quite strongly that we should train kids towards passing exams. I have explained my view to him (that I disagree) and he is willing to allow me to work according to the way I feel.

There is no doubt it requires effort and discipline to teach using pupil-centred methods as they require a lot of preparation, especially if you are feeling tired. The H.O.D. suggests the use of a poor teaching method. It is very tempting to follow his advice because it requires less

effort and because it has been condoned by an authority figure.

My head of department taught the matric class last year and he believes in drilling for the exams. Therefore whenever he gives me advice (on my request) he directs me according to his way of teaching. I don't agree with his technique but I must admit that when I am feeling tired and as though I've got no time, I am tempted to follow his advice - although when it comes to putting it into practice, I feel guilty being lazy and generally don't follow that. When I feel more rested and less pressurised I make an effort to focus on concepts, skills and values.

The senior geography teacher gave me the geography objectives for the school. He didn't ask me for my ideas. We have since had three meetings in the year and these largely concerned the setting of exam papers. These meetings lasted about 15 minutes each. Other than that there was not one time when the senior teacher approached me. There was no sense of guidance at all. The senior teacher's methods consist of talking with pupils and then they summarise sections from the textbook at home. The senior teacher has never seen me teach the whole year.

Our vice head who has been on my back for the past five weeks, has discovered that it is my first year and thats why I have been asking so many questions. Well things are looking up!

Generally the headmaster gives us a great deal of freedom in our teaching. Although this responsibility sometimes frightens me, I appreciate being treated as a professional.

The inspector suggested that I give the pupils roneod notes and spend the period teaching them. Frequent tests could ensure that they read the material.

I also feel so cut off from the rest of the staff even though we have spent time together over this exam period. I

have alienated myself from them especially lately with so much to do at breaks, and most days I sit in the corner of the staffroom and don't want to talk to anybody - its good recovery but I feel bad about it all.

Having just completed my training I still feel prepared to strive for the ideal and I feel disillusioned that established teachers aren't prepared to.

By integrating with other subjects one's teaching methods are affected. This can have a very positive influence, and I think did have an influence on my teaching because different teachers gave me new ideas. Often we would have a type of brainstorming session which would bring out some very original and good ideas.

I have encountered no opposition from teachers or the principal concerning my teaching methods.

Colleagues have complimented me on the fact that I allow the pupils to chat about topics and that I give more than the syllabus content rather than making geography a purely content subject where they have to learn all the time.

The biggest problem I experience in geography is the lack of communication between teachers.

3. TEACHER TRAINING.

I feel that Honours prepared me better for teaching than H.D.E. did because during that year I came to terms with what geography is and why I am teaching it. It helped me establish my aims and objectives in geography education as well as the value of geography as a subject. Also during Honours I became more familiar with the content and I learnt skills myself and therefore gained more confidence. I think that having these things established in my mind has given me a more solid backing in my teaching and I don't get so

easily swayed by outside influences, e.g., other teachers, syllabus etc.

I regret having done an Honours degree from the point of view that if I hadn't done it I wouldn't have to teach a matric class. But on the other hand I feel more confident content-wise and more prepared having done Honours.

I feel that a geography degree is merely an extension of school geography (this is not meant in a derogatory sense as I really enjoy the subject) and this has meant that I have been more confident in geography lessons as I am au fait with the content.

Teacher training made us aware of methods and age differences.

I felt that H.D.E. and training in general had not prepared me at all for reality. In our first week of the year we are expected to set exam papers and I had never done that before. I didn't know how to go about setting out a year plan or work scheme for the term.

My pre-service training prepared me psychologically for first year teaching. It made me aware that the first year will be difficult; don't expect to crack it in the first year; just get through the next year. There were a lot of good ideas I learnt last year and as time allows I will start to incorporate them into my teaching. Some of my lessons are absolute disasters but there are others that I know are good and I know that next year there will be an improvement.

What I look forward to is getting together with other teachers e.g., doing a B.Ed. or a refresher course.

I feel very strongly that geography method courses should include an overseas trip. It would be invaluable for teaching. In the same way in which we are taught that school geography needs fieldwork, so geography teachers

should ideally have some experience of countries that they are going to teach about. Geography survives on the personal anecdotes of teachers and pupils regarding their experiences of place.

I feel that H.D.E. should be 6 months theory and 6 months teaching practice /apprenticeship. This system will give experience in handling administration, e.g., work schemes, exams, as well as becoming more familiar with the school atmosphere and the rate at which work can be covered.

4. TIME PRESSURES.

Because I have been rushing from day to day I haven't really sat down and thought out what my aims and objectives are for each lesson.

If only there was more time to devote to preparation - how infinitely better I could prepare.

I have enough time to prepare the run-of-the-mill lessons, but it must be remembered that I take four standard seven classes and each lesson is therefore repeated four times.

I simply do not have the time to plan for discovery method or inductive teaching and because I feel so pressurised, I simply have to get things done - I have to resort to teacher talk.

I use a lot of group work and because this is so time consuming finishing a long syllabus is difficult.

Although I thought I would cover the standard six mapwork section quite quickly, I ended up spending three weeks on it.

I am battling to find time to set exams. I just don't know how to go about it.

I don't seem to have any time to myself. I work until at least 11.30 p.m. every evening preparing lessons and it doesn't seem to make any difference.

One of the main complaints I have about the teaching profession is that they expect you to produce lessons of high quality but they give you no time to prepare them. I am newly married and for instance last night I got home after 5 p.m. (we start at 7.30) and I was exhausted and there was no way that I was going to sit down and prepare. I knew I didn't have enough geography ready for the following day's lessons. I thought, well that's too bad - the class is just going to have to suffer for one day and so last night I socialised. About 75% of my weekday evenings this year have been spent preparing lessons.

I am still very tired and feel it is very unfair that I have so little free time. I have seen my family once since I have been at school and most of my friends even less.

I have been put in charge of hockey and with very limited knowledge of the game am expected to umpire first team games, write umpires exams and attend hockey courses. I have to train eleven girls to play hockey before next Saturday as our second team consists of beginners. By the way, I also still have to prepare lessons.

I have spent the year trying to survive, build up as many overhead sheets, worksheets etc. that will help me for next year. I have a master file in which I place everything I have used during the year. I also keep other peoples' exam papers and worksheets. Next year I will be able to spend the time which I used to prepare my initial work on preparing more media-centred teaching.

5. EXAMINATIONS.

This was a difficult week as we had to set exams. A job which is time-consuming and terrible. The marking is even worse.

I spent the whole of Thursday (public holiday) preparing and setting the standard eight geography exam paper. It was a real challenge - I really enjoyed setting it. I tried to vary the question paper as much as possible so that pupils could enjoy writing the paper.

Always, however, there is the pressure of exams, to finish the syllabus and to 'get results'.

Examinations, and the pressure on a teacher to achieve good examination results, means that one has to spend a lot of time simply giving information in a way that can be regurgitated at exams. Another teacher who spent her time telling the class which notes to underline in the textbook achieved much the same marks as my kids. This is very discouraging as it takes much more work to prepare all this pupil-centred hogwash.

Unfortunately the other teacher in standard eight is summarising from the textbook and he is setting the exam paper so my pupils started feeling threatened - do they know enough facts for the exam?

I teach for exams to a certain extent but they are not the dominant force. Next year, however, I will be teaching higher standards and then I will perhaps be forced to become exam orientated.

I am finding it very difficult not to let the exams influence my teaching of matrics. I am using past matric papers to structure some of my teaching e.g., I select a few past exam questions and then compile them into a worksheet for the pupils.

All homework I have to go through word by word so that they know exactly what to write in the exams.

I was furious with the standard sixes because it was quite obvious that they had not learnt for their test. I felt I had wasted my time teaching them.

The standard sevens wrote a test and had not learnt. Was so cross, made lots of threats etc. and said they had to re-write the test next week.

Also, much of one's success as a teacher is measured on examination results. If a child does well he/she is clever and hardworking, if he/she does poorly or fails it is because of a poor teacher.

After marking the exams I was ready to give up.

All the papers have been marked and I must say I feel very proud. My geography class did extremely well. I received many favourable comments from the pupils (I am a good teacher etc.) which makes me feel good. I realise that pupils often only say that if the results are good.

I test the pupils regularly every Friday. That is the only way they will do any work.

The matrics are keen to learn if there is a test ahead of them.

6. IN-SERVICE COURSES AND GEOGRAPHY ASSOCIATIONS.

I was really keen to go to the in-service course being held by the Department. I went to the senior teacher, who went to the headmaster to enquire about me going. As the headmaster said only three teachers could go, the senior teacher said that as I was the newest member of staff, I could not go. As a result of them going to the course nothing has changed and no-one has bothered to tell me anything about what occurred. There was no feedback at all.

During the year I attended two lectures by Geoff Dinkele - one on attitudes and values in geography teaching and the other on games and simulations. I thoroughly enjoyed the lectures and felt motivated by them to try different ideas in the classroom. It served to remind me of the value of geography as a subject and also made me realise how much I enjoy the subject myself.

The EEASA (Environmental Education Association of Southern Africa) conference also served as a type of in-service training course and since then I have used several of the ideas and methods in my teaching. I learned a lot from the conference with regard to using the environment to teach geography and also how to teach with few facilities, aids etc. - a facet which I feel our training course neglected.

There are no geographical associations in our area - by that I mean groups of people involved in geography that meet together. I am interested in starting one amongst geography teachers in local schools so that we can meet together and share resources, discuss problems and generally help and teach each other.

7. EQUIPMENT / PREPARED MATERIAL.

Access to hardware also determines much of one's methodology. For example, it takes two days for any roneoing or photostating to be done. Thus if you want to run off a worksheet it must be prepared three days in advance. I am rarely that organised.

Tried to get hold of pictures from travel agents to brighten up the class, but they would not give me any.

We have no overhead projectors so I have to use the blackboard extensively.

There is no equipment to present lessons attractively - no overhead projector, no screen and only half of my blackboard can be used effectively.

I use the overhead projector a lot because it means I can prepare beforehand and I am not scratching around in the classroom which I hate doing.

There are no textbooks as the new syllabus has been started and the new ones have not been printed yet. There are no 1:50 000 maps or aerial photographs and only a few old maps (small scale).

Lack of textbooks and apparatus makes teaching difficult.

Showing a film or video in this school is quite a hassle as there is no projector room or TV so it is easier showing photographs.

Finally I was able to use the library. I gave the standard sevens a project to do on rivers - seeing as they had done river formation in classs. I found many of them were not working in the library but rather talking or reading other books. I was pleasantly surprised by those who brought in books from home or public libraries.

8. TEXTBOOKS.

This week I finished the geomorphology section, but did not know what to do next. I felt like giving up the teaching part until the books arrived.

This term started off well with the arrival of the new standard six geography books. I felt that the writing load would not be as great and the pupils were very keen to use the books - even for homework. I was more interested in the lesson and prepared my lessons properly, giving them some drawings to do for homework.

Used textbook for reference, but seldom teach from it.

I am trying to work towards moving away from the use of textbooks which are full of facts but the senior teacher insists that we order textbooks which have a lot of 'meat' in them. I recommended that a more pupil-centred textbook be ordered but he overruled me.

The textbook I am using is extremely biased so I left out the section on population and concentrated on relief, agriculture and industry.

Textbooks help me determine the content level I present to my pupils.