

A Longitudinal Study of a Primary Cohort

with Special Reference to Truancy Behaviour

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FOR MY WIFE DORIS

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ABSTRACT

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This study seeks to examine truancy behaviour in a cohort of children as they move from the final year of Primary schooling through to the end of fourth year at Secondary school.

The study is longitudinal and in two parts. Firstly truancy behaviour is examined in its historically traditional aspects by a study of the factors which have been held to characterise the truant. These factors are tested for their predictive power using the technique of Multiple Regression Analysis.

Secondly an examination is made of teacher attitudes in the Secondary school in an attempt to test whether different outcomes, in terms of truancy, have measurable antecedents. The measuring instrument used to carry out this task is the Repertory Grid and this same instrument is used also to test some hypotheses concerning the attitudes of children towards truants and truancy.

Definitions of truancy are flawed and in this longitudinal study all absences are recorded and examined. Traditional factors associated with truants are seen to be inadequate for the purpose of prediction of those at risk. The Secondary School is suggested as of major controller of its own outcomes by the attitudinal stance it adopts towards children through its teaching staff.

Finally the views of children themselves, as measured by Repertory Grid, suggest the possibility that children have more allegiance to each other through the 'club' of childhood than to adult erected categories such as 'truant' or 'scholar'.

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The children and teachers who gave their time, sometimes with a measure of good natured bafflement. The kind and tireless staff, in all the different departments, who ferreted out information for me at 129 Bath Street and its satellites. The individual Reporters to the Children's Panel. All the various members of staff at Jordanhill College of Education in Computing and in the superb Library.

My three supervisors, Dr Peter Martin, Dr James McCall and Dr James Tulips, earn particular gratitude for their patience and encouraging optimism.

In the latter half of 1986 it became apparent that although some hopefully worthwhile data had been collected an enormous job of sorting and recording in a form suitable for computing remained to be done. It simply would not have been done had the opportunity not been offered by the Glasgow Child Guidance Service of four months secondment to Jordanhill College to allow access to computing facilities and library.

The four months were filled largely with the laborious transfer of the daily attendance for each child morning and afternoon for five years onto computer coding forms. The rest of the data were similarly treated although in quantity they were considerably overshadowed by the attendance data.

The job of punching the data from the coding sheets was thankfully undertaken by the computing department staff at Jordanhill College.

Finally, therefore, if my employer had not come to the rescue with the precious commodity of time I, most assuredly, would be in no position to offer this gratitude now.

PART 1.

" Truancy is an interesting word. It is of Gaelic origin and one of the very few words, 'whisky' is the best known, which have come from the Gaelic, via French, into the English language. Its original meaning was 'wretched'." (British Journal of Criminology. 1974)

CHAPTER 1 INTRODUCTION.

"Some children miss set classes only or 'wag' after being marked present. Others forge sick notes or are covered for by parents who can't get their children to school but don't want them taken to court. Others have an everlasting supply of good reasons for leaving school once they have arrived. Others are kept home by parents and some have simply been away for so long that their names are no longer on the roll." (Coventry, Garry and others 1984).

WHAT IS TRUANCY?

The French have a word, Le truand, which means a beggar, a villain or a crook and the Spanish too have a similar word (truhan) meaning a rogue. As the frontispiece quotation explains both these words and the English word truant come from the Gaelic where 'truaghan' is a miserable person and 'truagh' means wretched. The English word 'truant' is in use at least as far back as Shakespearean times although it is more applied to personality than schoolboys. It seems clear that in Anglo-saxon culture and consciousness nonattendance at school has come to have extremely negative connotations.

Without compulsory education there could be no truancy. The creation of the obligation brought with it the possibility of its neglect.

There was truancy, of course, before the 1872 Education Act in Scotland (Patrick, 1972) (or the 1918 Act in England) in the sense that some who had the opportunity of schooling available chose not to take advantage of it. However it is probable that concern about truancy as a social phenomenon only became national when school attendance for all became law (Roberts 1972, Simpson 1947).

School attendance is and has been, perhaps surprisingly, remarkably stable for years. Despite the social and educational improvements which have taken place over the past century, the variations in reported attendance rates have been slight. The average attendance rate in London for secondary stage children has remained at 80% for the past 70 years (Reid, 1985) and although there are pockets of poorer attendance to be found in various parts of the country (e.g. Carroll et al 1977) the phenomenon seems to be nationally quite steady (Fogelman et al 1980).

The Strathclyde Regional Working Party Report on School Attendance (1977) says the following in its introduction: "Compulsory attendance was introduced in Scotland in 1872. In 1906 the percentage attendance in Scotland was 87% and by 1934 it had reached 90%. It was felt by some authorities that it was hardly reasonable to hope for any noticeable improvement in the regularity of school attendance." The figures for an eleven year period in Glasgow are given below:

Percentage Attendance for All Glasgow Schools 1974 to 1984.

SESSION	ATTENDANCE
'74-'75	83.3%
'75-'76	86.7%
'76-'77	87.2%
'77-'78	87.1%
'78-'79	86.5%
'79-'80	87.6%
'80-'81	87.6%
'81-'82	87.4%
'82-'83	87.3%
'83-'84	86.8%
'84-'85	86.7%

Definitions of Truancy.

In most discussions and studies of truancy much attention is devoted to definitions.

Pack (1977) discusses the problem in a Scottish context as follows: "Although attendances at school have been registered systematically, as required by the Schools (Scotland) Code 1956 and also under the new Schools General (Scotland) Regulations 1975, the figures are not in themselves informative about the extent of truancy. Where attempts have been made to assess this there are considerable differences as to what is meant by the term." The committee having highlighted the problem went on to consider various definitions viz "While those submitting evidence clearly had a working definition of what they meant by truancy as indeed do most people such definitions were not formulated on a common basis...Some for example included only absence without parental

consent and knowledge while others included parentally condoned absence for reasons not approved by the school." The committee agreed that absence of the latter kind was in fact truancy. Again, some definitions included school phobia or school refusal while others would argue that this does not constitute voluntary absence on the part of the child and therefore should be excluded. To solve the problem the committee arrived at its own definition; "Truancy is unauthorised absence from school, for any period, as a result of premeditated or spontaneous action on the part of pupil, parent or both."

The H.M.I. report of 1978, in England, discussed difficulties of a similar nature; "The attempt to quantify in general terms unexplained absence from school, some of which may be unjustified, is unproductive and can be misleading. An average figure of attendance conceals not only the incidence of good attendance but also the real seriousness of absenteeism. Even to compute one form group's attendance for a week can be misleading, unless it is expressed for each child in half days and examined against each child's record throughout the term."

This cautionary note has been considered as a serious one in this study and is discussed more fully below. However on definitions the report has the following to say; "The definition of truancy is fraught with difficulty. Unauthorised absence is a phrase which does not identify the authority. The school will not sanction absence without good excuse. Some parents may. Absence with parental authorisation is usually then described as condoned absence. It may arise for a number of reasons: illness of the mother, sickness among younger children, the need for an English speaking son or daughter to shop for the

mother, family work patterns (e.g. shift work and occasional holidays), mother's desire for company, indulgence of the child's wish to stay at home or sheer disorganisation of home life and occasionally the parents' inability to control the child."

David May (1974) in his Aberdeen study of truancy used teacher definitions and more objective school register types of measurement which are discussed in greater detail in the next chapter. On the other hand Tyerman (1955) used school attendance officers to inform him who the truants were and additionally he used court records of children prosecuted for nonattendance. This study too will be discussed in more detail in the next chapter.

Galloway (1985) chose his truants as follows: "...the chief education welfare officer asked head teachers to provide the name, sex and age of all children who had missed at least 50% of attendances in the previous Autumn term... Having received a list of persistent absentees, the education welfare officer for each school stated whether more than half of each pupil's absences were due to illness or some other legitimate reason."

In contrast to that quite tight defining of truancy D.J.White (1978) in a local study at Garnock Academy says; "...a truant is someone whom the Principal Teacher of Guidance says is a truant."

It is clear that definitions of truancy are important in that the problem of variety which they present must be addressed at the very

beginning of any study. As with other studies, therefore, that problem will be addressed here and now.

"Most researchers now agree that valid and reliable measures of attendance are very difficult to obtain and interpret. In particular absence figures which are based on school registers are notoriously unreliable." (Reid and Kendall, 1982)

Galloway (1985) claims that registers do not take account of those who slip away after having been recorded as present and this feeling of mistrust is a feature of many other studies. No one, it seems, is happy to accept that teachers who mark registers have eyes and ears and enough of a detective instinct to identify period 'doggers' and make certain that they are recorded properly in the registers. This point is important as the study to be described relies heavily on class registers and justification of this strategy is appropriate early on.

Thus definitions of truancy are generally quite scrupulous in their attempts to avoid the pitfalls of simply accepting the evidence of the register. These pitfalls are as follows:

1. Some children who are absent from school are absent because they are ill.
2. Some children who are absent from school are absent with the consent of the parent.
3. Some children who are registered as present are not in fact present in school after the registration period is over.
4. Registers are too superficial in their reporting of absence.

" A general figure of 10%, then, will mean that 18-24% of children have been absent at some time during the week." (I.S.T.D. Scotland, 1974)

In response to these difficulties most authors avoid registers. It is not clear in Galloway (1985), however, how the head teachers made the judgements and therefore we do not know. From current experience of working in secondary stage schools particularly, a head teacher given this task to do would, quite rightly, direct his secretarial staff to look up the registers for the appropriate period and collate the results to give to the psychologist when next he called. It may be that registers are used more often than is made clear.

It is argued in this study that registers are by far the best source of truancy data readily available and that the criticisms outlined above are not unduly serious in cross sectional studies, which the vast majority are, and in the longitudinal study to be described here they are not problems at all. Thus it is argued that a longitudinal study overcomes problems of defining truancy and frees class registers from the criticisms traditionally levelled against them.

Taking these objections in order it is doubtless true that children stay off school because they are ill. In a longitudinal study as described here those children who are off through genuine illness will, if they are not truanting by illness, be absent for an insignificant period of time in the context of a five year study. Those children who are chronically ill and thereby absent for long periods will be very few in number and well known to the school. In a longitudinal study therefore absence due to illness is not a serious distortion of the total picture and for the purpose of this study can be treated as truancy. Indeed absence due to illness may often be an excuse, conscious or otherwise, for truancy.

Secondly it is true that some children are absent from school with the consent of their parents. Some children are absent from school with the collusion of their parents which looks in practice like the same thing. In general there are children who, because they are genuinely off school for legitimate family reasons, are therefore not truants. Again in the context of a longitudinal study these absences will be short and will not significantly distort overall patterns.

The third objection above has already been dealt with. Period 'doggers' are from experience of Glasgow secondary schools, well known to staff and their fitful attendance is recorded as such.

The last objection expressed above could easily be a problem with cross sectional studies which typically choose chunks of time at a given point in the year. Snapshots can catch people in uncharacteristic poses. This is not however a difficulty with the present longitudinal study which follows attendance daily, morning and afternoon, for five years. Such data are capable, if required, of yielding the attendance of any particular child at any point in the time period under examination.

Why Truancy?

If truancy, as has been argued above, is so stable, ubiquitous and omnipresent a phenomenon it might be argued that it should puzzle us no

more than sunrise. However poor school attendance arouses strong feelings in teachers, parents, politicians and education administrators. It is of interest in that at a very basic level, research workers disagree about its causes and significance. It is worthy of study in as much as it is wasteful (perhaps inevitably so) of economic resources as well as the human resource of children's lives. In 1979 the average annual cost per pupil in secondary education was £715 in England (Galloway, D. 1985). By 1987 (T.E.S. 4-12-87) the net cost per pupil in England and Wales averaged at £1558.9 and went as high as £2635.2 in I.L.E.A.

If on average 15-20% of children are not at school at any one time then that fact should earn our attention for financial reasons alone. Absenteeism is disruptive too of teacher's time and curriculum delivery in that returning truants take teaching effort to allow them to catch up quite apart from the effort involved in checking up on absence notes or the lack of them.

There are also more and more resources from outside agencies given to coping with the problem of children who do not attend school. Both the School Attendance Department and the Social Work Department in Glasgow as well as elsewhere in the country devote large amounts of staff time to the truant child.

The conviction grew as the planning of the present study progressed that truancy if not the prime referral symptom in many Child Guidance cases was very often an important secondary consideration. In discussion with colleagues it became apparent that where this 'symptom'

cannot clearly be further elaborated as school phobia, there is rarely a clear course of action which might be followed with any guarantee of success. Indeed where the symptom is truancy and where there is no obvious family disorder and/or neuroses in the client, opinion would seem to be that truancy alone may not be an appropriate referral symptom.

Schools have a felt need that the Child Guidance Service should have some appropriate response to assist clients who on the face of it are simply voting with their feet. School Attendance departments, on behalf of the local authority, are assiduous and energetic in their demands for a response to truancy from the School Psychologist. Despite the fact that school absence may be, apparently, as unremarkable as sunrise it is every bit as capable of generating heat in public opinion.

Responses available to the Educational Psychologist are as follows:

1. Discuss the case with the school guidance staff and do nothing else.
2. Accept the case and after some time in relationship making attempt to re establish attendance by pointing out the dire consequences of continued truancy. This can work with parental support.
3. Refer the case to the Social Work Department and/or the Children's Panel in the hope that some stronger sanction may be made available which will persuade the child of the wisdom of early return.
4. More recently the possibility of Community Assessment has become available under the auspices of the Social Work Department in Strathclyde but it is too early to comment on its efficacy.

With these mixed and not clearly delineated responses to a form of behaviour which seemed and seems quite endemic, it was felt to be

reasonable to try and make some sense of truancy precisely because of its longevity and stability.

Why do some children find school attendance difficult or impossible? If we knew that could we predict those children who are at risk of becoming truants? Is it a particular kind of child who truants? Is it caused by home background or family circumstances? Is it really caused by the schools? What do teachers think about it? Do the children hold views which might help our understanding?

These exemplify the kinds of questions that are worthy of investigation since the answer to each would add to the mosaic which, at the end, would perhaps provide a clearer picture and suggest some policy directions.

How could these question be answered?

It has been argued above that a viable measure of truancy could be obtained by using the school registers. The major caveat in this use of the school register is that any such study should not simply sample register data at given points in time but that register data should be continuous. This requires that a longitudinal study be undertaken to allow the use of register data. When all attendance in the register is recorded for the whole period of the study then the difficulties of

defining truancy disappear in that all absence is truancy and vice versa.

If we are interested in truanting behaviour in the secondary school, then, it is argued in this study that the sorts of data which it would be useful to collect, both to profile children and to make attempts at prediction, would be that available in P7. It was at this stage therefore that data were collected about all the children destined to go to one Glasgow comprehensive school. The cohort was tested on instruments described in chapter 3 and various kinds of personal and family data were also collected at this time which will be described in detail in the same chapter.

It will be made apparent in chapter 2 that it is clear from the literature that children of various kinds and with various attributes tend to truant more than others. It will be possible, given daily attendance for each child, to ascertain whether there is a 'truants' profile and to assess to what extent predictions of children at risk might be possible.

It is a clear advantage of the kind of longitudinal study to be described here that if all attendance is recorded then definitions of truancy can be erected and tested on an experimental basis rather than on personal hunch and intuition. If it is argued as White (1978) does that: "...A Primary pupil with about twenty (half day) absences more than the class average is a potential truant", then such children may be selected from the data and such a hypothesis thoroughly tested on all their subsequent attendance at secondary school, not just for a

limited period such as a month in S1 and S3 as a cross sectional approach may be obliged to do.

It was possible, also, to collect data on each child as his secondary career unfolded. Examination results, both at '0' grade and earlier in S2 and S3 class tests were available. As a measure of 'deviance' attendance rates at Children's Panels were gathered. This data will be seen in the context of school attendance and help to make the overall mosaic sharper.

It is a current issue, as will be plain from Chapter 2, that schools themselves are under study as factors in the aetiology of truancy. To add to this part of the picture the attitudes to truancy, of teachers and pupils, are assessed.

The instrument used for this part of the study is the Repertory Grid (Kelly 1955) described in detail in Chapter 7. It is felt that this instrument is particularly useful where responses are sought which should be as open and unrestricted as possible.

SUMMARY.

It is apparent then that there are issues about the definition of truancy and these definitional issues govern the ways in which truancy is measured.

It is clear that truancy, endemic as it is, is by no means well understood. There are issues of whether root causes lie in the child or in the family or in the neighbourhood or indeed in the school. It is the intention in this study to unravel some of these issues and to assess the respective attention which should be given to each. This unravelling will be carried out in the succeeding chapters beginning in the next with a review and discussion of the literature as it can shed light on these matters through past work.

In general however the study moves as a shadow of the history of truancy studies. Individual qualities of pupils are studied first in an attempt to construct a predictive model to locate those in P7 who are at risk of truanting in later years. Dissatisfaction with blaming-the-child kinds of approaches leads to more of a systems view of truanting behaviour. While it is as fruitless to blame schools for truancy as it is to blame the children it is argued that truancy behaviour is best explained by a model which takes into account as many members of the system as can be made accessible.

CONCLUDING PROSPECT.

There is a school in Glasgow where all the children have I.Q. scores well below average and where all the children have great difficulty with basic subjects. In this school most of the children have to travel a long way to get there in the morning. Most of the children at this

school come from poor homes and often there is only one parent, who is likely to be unemployed. The attendance rate at this school is in excess of 95% and this is for an age group of 13yrs to 19yrs where attendance problems are most likely to occur. This school is a secondary school for children with mild learning difficulties. It is , indeed, the very existence of 'good' schools which lies at the root of the motivation for this study and which makes truancy well worth investigation.

CHAPTER 2 REVIEW OF THE LITERATURE

EARLY WORK.

Factors in the child.

Kline (1898) is often cited as the earliest reference to truancy (cf. Cooper 1966, Evans 1975). He describes truancy as a feature built into the child. It is to be explained as a migratory impulse... "a rebellion against suppressed activity and the denial of free outdoor life". In the 1890s when Kline was writing, this was not such an unlikely proposition given the comparative recency of compulsory school attendance.

However only with Burt's attempts to examine factors associated with truancy in 1925 do we see in this country a serious examination of the problem in a context where compulsory schooling for all had been the norm for a number of years.

Burt questioned Kline's inborn impulse to wander, and although in common with other workers at the time his prime concern was delinquency, he provided a starting point for the consideration of truancy itself.

He found that about 17% of boys and 4% of girls in his group of delinquents had truanted and he associated "mental dullness", "temperamental instabilities", "defective family life in vicious homes" and "undesirable friendships with other delinquents" with this subgroup of truants within his larger group of delinquents. His emphasis is upon defects within the child to a large extent and on the undesirable environment in which such defective children are to be found. Ten years previously in the U.S.A. Healy (1915) had placed truancy firmly where it belonged in the view of the time in associating it with antisocial and unlawful conduct. In Healy's view truancy "...is the kindergarten of crime."

So for the first quarter of the century the emphasis of truancy research, where it could be discerned as such, was upon factors 'in' the child or in the 'lower orders' who produce such defective children. Attention having been drawn to the existence of such matters the foundation was laid for more general enquiry into personality problems and deviant behaviour in children (see for example, Cooper 1966). Truancy came to be seen as a discernible factor in larger syndromes of delinquent behaviour and mental ill health. The study of truancy, per se, was conducted as a side interest to the more intensely active study of child personality. The context for what work there was which did concern itself with truancy used the school as its context but retained the notion that, by and large, the fault lay in the child.

What factors in the child?

Various factors to 'explain' truancy were suggested by Dayton (1928) such as 'dislike of teacher' or 'feelings of inferiority'. McElwee (1931) in a study of 110 New York river-front truants found the median amount of school retardation to be two terms. Although not necessarily linked, Dayton had found that the factors of "dislike of teacher", "feelings of inferiority" and "lack of recreational facilities after school hours" were more important in the aetiology of truancy than low intelligence. Indeed Dayton could be thought of as ahead of his time in his readiness to look at the context in which the child found himself, opposing the largely hereditary weakness view of the day.

Brown (1934) believed that truancy was an attempt to preserve the child's sense of adequacy by escaping from a situation where his inferiority undergoes constant magnification. This echoes but extends McElwee's (1931) conclusion that children were truanting from school as a means of escaping from discouraging feelings of inferiority caused by poor faculty grade placement. Thus, although at this point in the history of truancy study low I.Q., by itself, does not seem to be an important factor (Dayton 1928), school failure does (Brown 1934, McElwee 1931) and school failure because of deficit in the child.

Studies which concentrated on deficiencies within the child went on through the 1930s and 1940s. In 1935 Kirkpatrick and Lodge report a study of 752 cases of truancy referred to the Chicago Juvenile Court. 7% were retarded by four years, 16% by three years, 25% by two years

and 22% by one year. These children, moreover, were deemed to be misfits in school but the authors chose to change the emphasis of the time a little by making a plea for more suitable curricula to meet the needs of the individual.

Factors in the environment.

As the nineteen-forties progressed into the fifties the emphasis in the research became more sociological. Young (1947) while continuing to lay stress on the child's emotional immaturity also drew attention to the home conditions of truants.

Tyerman (1955) in his doctoral thesis stressed the importance of unsatisfactory home conditions and social failure at school. Home conditions were seen as the major cause of truancy: "...the problem of persistent truancy, or of any other form of repeated misbehaviour...is largely the problem of the bad home." This was current thinking in the field at the time, thirty years ago and represents a shift in the prevalent view of thirty or perhaps fifty years prior to that. There is still something 'wrong' with children who truant: "Most truants are unhappy at home or school; 50% are unhappy at both. But usually it is some special feature of life at school or at home that causes the unhappiness not home as such or school as such ...50% of truants cannot do the work of the class and the same proportion are unpopular with their classmates." (Tyerman, 1955).

Tyerman takes a wider view than his predecessors and accepts that these factors while undoubtedly present in the truant may not discriminate and a lot of nontruants possess them too. He is even willing to accept that "...the influence of an effective teacher can reduce absence."

Tyerman's study was in three stages and focussed on the pattern of truancy of the Welsh town in which Tyerman worked as an Educational Psychologist. Firstly he gathered data on the patterns of school attendance for the Burgh from the time of the First World War and analysed this in detail for each school from 1946 onwards.

The second stage involved an intensive personal examination of a more representative group of forty truants gathered together with the help of the school attendance officers. He then matched this group with a control for age, sex and town. The control was drawn from those children in attendance at Child Guidance Centres. He interviewed parents and head teachers and visited homes and schools using, for the purpose of structuring interviews, Burt's 'working outline' of personality structure(1945 a, b). He found that more than 75% of truants lacked affection, more than 50% had been charged with stealing and many more had stolen but not been caught. 25% had slept out or run away from home and finally the factors which seem to run through many of the studies: retardation and now low intelligence.

It seems, then, that Tyerman's work marks the beginning, albeit thirty years ago, of modern attempts to study the problem of truanting behaviour. He laid the foundations for a multifactorial consideration of truanting and brought balance out of what had tended to be

lop-sidedness of viewpoint until then. Not just defective children and not just vicious homes and not just bad teachers or poor curricula but perhaps something of all of these.

Although Galloway (1985) felt that Tyerman blamed the home and ignored school, Tyerman's approach marked the start of current work in truancy research. Although, not everyone took the same approach thereafter, the main thrust has been towards multifactorial approaches since then.

CONTEMPORARY APPROACHES.

There are few books that concern themselves exclusively with truancy. Denny (1973) has the following to say: "... if the general reader examines the library shelves for studies of truancy he will probably find only three books which deal specifically with these problems...much of what we know is summarised by Kahn and Nursten in UNWILLINGLY TO SCHOOL, Tyerman in TRUANCY, and Clyne in ABSENT."

Denny was writing these words in 1973 and in the area of published texts on truancy some change has occurred in the last fifteen years.

A year later TRUANCY (Turner 1974) was produced and the 'PACK REPORT' (1977) stimulated a good deal of discussion in Scotland. The Pack Committee of Inquiry was set up at the request of the then Secretary of State for Scotland, The Rt Hon Bruce Millan, under the chairmanship of

Professor D.C. Pack. The remit of the committee was wider than simply nonattendance but in that area they arranged for "... a statistical exercise to be carried out over a six week period in January/February 1976 in a stratified sample of Scottish schools, with a view to obtaining a good estimate of the size of the problem at present and providing a base for comparison which we hope will be made in later years."

The committee's definition of truancy has already been referred to in Chapter 1 and even within the limits and difficulties of this the committee concluded that "... the causes appeared to divide naturally into three categories: those arising from general social attitudes of the public, those arising from characteristics of the child's family background and those arising from characteristics of the school attended".

Such recognition of the multifactorial nature of the problem while gratifying in a Scottish study seems to have led to a cautious response at the time and since. Indeed the impact of the report was perhaps deadened by the minority views of one member who received a large (in proportion to the length of his statement) amount of publicity for his minority statement of disagreement with the assumptions of the report. He felt that the remit given to the committee was far too narrow and did not address the fundamental changes in the system which he felt would need to be made if the problem of truancy were to be effectively tackled. "... as a society we have conspired to deny the rights; the dignity and the authority; of our children... if we see a radical discontinuity between the sinner and the saved then a radical

intervention is not only appropriate but morally necessary (for their own good!)...If on the other hand, the difference between the best and the worst of men is a matter of degrees rather than of kind then the therapy prescribed for the ailing will be less severe." This theme will be taken up later in this study but he goes on to question the compulsory nature of schooling, the shutting out of parents from the education of their children, the failure of the comprehensive school to meet the needs of the majority and concludes acidly; "...it is irrelevant for eminent educationists to be discussing palliatives like tarting up curriculum or tightening up the sanctions on truants or the establishment of a network of 'sin bins' for the 'indisciplined'."

In 1978 'TRUANCY AND BEHAVIOUR PROBLEMS IN SOME URBAN SCHOOLS' (H.M. Inspectorate of Schools 1978) came out in England. This was a survey of practice in 18 comprehensive schools in England and the report's authors are even more troubled by definitions of truancy than the Pack committee was in Scotland.

In general the report's conclusions were less detailed and less comprehensive in their recommendations and although the scope of their inquiry was more limited than that of the Pack committee the contiguity in time of the two reports makes their comparison irresistible.

Nevertheless despite the restricted nature of the report compared to that of Pack the problem of truancy and difficult behaviour is very naturally discussed as a multifactorial one with indeed little or no mention of causation from within the child.

Hersov and Berg (1980) edited a group of studies many with a medical viewpoint drawing together some research findings since Tyerman's 1955 study. Klein and Klein focussed on the pharmacological management of children who "...refuse to go to school because of reasons other than those that motivate the truant who typically has a dislike for school and a predilection for nonschool based activities." It may seem an unlikely fate for a truant to end up in hospital on a drug regime but it happens to truant children in Glasgow.

Hersov argues the case for in-patient care of more severe cases of school refusal where family circumstances are such that they would effectively counteract the best efforts of external agencies to return the child to school or where psychiatric problems could be identified in the child or his family.

Yule, Hersov and Treseder (in Hersov and Berg 1980) consider the efficacy of behavioural treatment of school refusers along with the indications for its use. They are however hospital based and admit to having poor control of what families do outside hospital to sabotage their efforts. Nevertheless the problem is one of inappropriate learning in the child largely and it is the child who must change.

Psychotherapeutic treatment of school refusal is outlined by Lewis with the emphasis on the inner world of the child. Again even after a hundred years of compulsory schooling the view is still quite often expressed that the adjustment to be made is somewhere inside the child.

Berg isolates 'dependency' as a phenomenon in school refusal and discusses the importance of this feature in the aetiology of what is really being discussed in many chapters of Hersov and Berg's book: School Phobia.

Discussion of school phobia or school refusal is carried on in a similar vein by Waller and Eisenberg (in Hersov and Berg 1980). Bauer examines the topic of children's fears and a consideration of what the school should be doing to alleviate them. The problem of truancy in general is discussed by Jones from her viewpoint as the Head teacher of Vauxhall Manor school in south London. It is her belief that many pupils are at school who should be in the world of work and should be released for such at the age of fourteen. Thereafter opportunities should be made available for life long learning. She does believe, however, that the school can take measures itself to help some borderline truants (in Hersov and Berg 1980).

The problem of School Phobia.

A good deal of discussion in these more recent reports has devoted itself to the topic of school phobia. There is one criticism which can, with some justice, be levelled at them: the extraordinary amount of discussion and puzzling about school phobia is disproportionate in terms of the size of the problem which is variously estimated as 1% to 2% of truants and thereby a very tiny problem overall. It is important

therefore to provide some discussion of the problem of 'school phobia' if only to exclude it.

Early studies of school phobia were psychiatric and small scale. Broadwin (1932) studied two children and and explanations were couched in the language of Psychoanalysis. Warren (1948) studied eight cases in a comparative study with twelve 'normal' truants and in 1955 Bonnard located seven cases for his study. In 1956 Estes et al studied cases referred to the Mayo Foundation in which the symptoms of the syndrome began to emerge in a consistent form. School Phobics are:

1. Intelligent.
2. Disordered in their relationships with their mothers.
3. Suffering from separation anxiety.

Coolidge (1956) took the following view: "...school phobia is a misnomer it is a separation anxiety which can occur not only in early childhood but also in later years".

The view of school phobia as a form of separation anxiety is current today although there is disagreement about appropriate treatment (Blag 1979). It is a bit of a puzzle why such a tiny subset of all truancy should attract so much discussion as it is not a major problem in the day to day work of Child Guidance staff. The label itself would appear to be misleading as although those labelled school phobics will, it is true, refuse to go to school this is simply the vehicle by which they bring their anxiety to the attention of agencies be they School Attendance Departments, Children's Hearings, Child Guidance Clinics or

whatever. There is rarely anything frightening for the school phobic in his or her school situation. Indeed as far as academic success is concerned phobics are successful in school. They are intelligent and may come from homes which are of a materially good standard for the area in which they live. There is always disorder in the parent/child relationship. Anxiety about separation from mother is often, but not always, a factor and in general school phobics are children who come to treatment with a good level of intelligence from above average homes, in material terms, who are suffering from anxiety about some aspect of their lives which usually remains a secret. School is not the phobic object and when enquiry is made in school about the phobic, teachers are often baffled and consider the child to be good in school.

Perhaps the puzzle expressed earlier about why there should be so much attention devoted to school phobia lies here in the anxiety which it seems to arouse in school staff who can understand in most cases why the majority of children truant as there is often antipathy around them. It is often difficult and even hurtful for a teacher to cope with a 'good' pupil truanting.

Having discussed school phobia to set it to one side, the mainstream of truancy research is well illustrated by Galloway (in Hersov and Berg 1980). A major author in truancy research in this country, he provides a description of more general interest.

He studied the cases of children who were absent for more than 50% of the time during a six week period in 1973 and a fourteen week period in 1974. He concludes; "Study of persistent absence from school reveals a

complex interrelationship between factors in the school, the local community, the family and the child himself." It is this complex interrelationship which is at the heart of today's 'state of the art'. Reid (1985) concludes his book on truancy as follows; "To date the evidence clearly suggests that multidisciplinary aspects are involved in the related phenomena of absenteeism and truancy from school. Absentees and truants tend to come from unfavourable and unsupported home backgrounds, and have low social class origins, and display psychological or behavioural problems of one kind or another, and have lower intellectual levels than the average child, and have a number of adjustment and learning difficulties in school, and have fewer friends than many of their peers, and have poorer teacher pupil relationships, and find difficulties in conforming to the rules and regulations imposed by schools."

Reynolds, Jones, St Leger and Murgatroyd (1980) offer an examination of the variation between school types as an explanation, in part at least, of truancy behaviour. They conclude; "... we believe (that different attendance rates at different schools) are not explicable by variation in the characteristics of their pupil intakes, whereas much more of the variation is explicable by using only a limited range of factors that describe the nature and process of the pupil's schools. "Opinion now moves towards the view that the school itself may have a major part to play in the aetiology of truancy behaviour.

The Role of the School.

The study of schools as organisations first came to prominence in the late 1960's (in Britain) with the publication of studies by Hargreaves (1967), Lacey (1970), King (1973), Ford (1968) and several others. Tollan (1983) has the following to say; "The initial research on the role of the secondary school as one critical agent in the development of deviant behaviour, focused on the product of deviants, rather than on the process within the school which led to the development of deviance." King (1973) summarises the position, at that time, as follows; "The research situation was, therefore, one where a number of small scale studies had described and explained aspects of the sociology of the school, and a number of large scale studies had described aspects of one kind of school, the comprehensive, without explaining sociologically what was described. The gap in the sociology of education was partly filled, but there was still a space for research which described and explained the organisation of a range of secondary schools.

Our attempt to do this was focused on the organisation of pupil learning and behaviour, and to a large extent excluded teacher/teacher relationships and what is generally called the administration of the school."

Schools up to this time were, largely, pre-comprehensive and school type was, quite properly, an important variable in many studies. Work had been of the input - black box - output sort with inputs such as

social class, sex and intelligence being fed into the black box of the school. Out of the black box came examination results, career choices and criminality. What went on in the black box of the school seemed inaccessible and complex and indeed Coleman (1966) argued that the impact of school was minimal anyway.

" Until quite recently it was fashionable to point to a conspicuous gap in the British literature of the sociology of education. The social survey tradition of research has led to a considerable knowledge of success and failure in the British educational system. This large scale approach, with an emphasis on educational output, was complemented by studies concerned essentially with the human input, and concentrating upon the family as an agency of socialisation. The concept that linked these two approaches was social class." (King, 1973)

David Hargreaves (1967, 1972, 1982) seems to have been an honourable exception to this trend and from a Symbolic Interactionist viewpoint examined the relationships within the school between teachers and pupils and between pupils themselves. It may be that, with his emphases on the importance of social and personal aspects of classroom life, he was influential in the direction which schools research has taken in subsequent years.

Power (1967,1972) was one of the first in this country to point out that schools may have an influence on the truancy of their pupils among other school outcomes. Indeed so raw was the nerve touched by Power that the National Union of Teachers and the Inner London Education

Authority stopped further work before he could discover how the schools were having their differential effect.

It was Rutter's (1979) contention that school 'troubles' such as truancy, disruption, delinquency etc were characterised more by the ethos of the school than by different kinds of intake. This ethos is operationalised by Rutter in that, among other factors which he also discusses, 'good' schools have:

- a. Good academic standards and high expectations of pupil achievement.
- b. Staff who provide good role models. (i.e. are not late, are neatly dressed etc.)
- c. An emphasis on positive feedback to pupils and are less dependent on punishment..."It seems important to organise things so that most children are able to succeed most of the time but, of course, providing a gradient of difficulty so that there is steady progress."
- d. Consistency of school values. Clear rules accepted by staff and pupils as being for the benefit of all. A feeling generated of 'our' school, of joint endeavour. No them and us divide.
- e. Involvement of pupils in the running and decision making processes of the school.

More and more over the past six or seven years quite powerful evidence has begun to emerge that, although schools may not be able to change the ills of society of poverty and family breakup, they can make a major contribution to helping children survive under their yoke. Reynolds and Murgatroyd (1980) as well as Rutter show correlations in excess of 0.6 between levels of truancy and in-school variables. There have been, too, a number of American studies which look at the nature of 'effective' school processes and at the factors under the control of the school that may generate better educational outcomes for its

children. Cuttance (1985) reviews these and it seems that it is not ability grouping arrangements, per capita expenditure, school size or type of building which influence overall effectiveness but rather cultural factors. High teacher expectation of pupil attainment, an academic or at any rate learning atmosphere, strong democratic leadership, staff committed consistently to school goals, parental involvement in school life, student involvement in the life of the school, an emphasis on rewards rather than punishment, and clearly established rules and clear policy.

The above is illustrative of how rapidly interest in school factors came to be of major interest when it is considered that just five years prior Cuttance (1980) could write: "... research has not been particularly successful in locating the particular aspects of schools which are responsible for their differential performances."

It seems clear that currently in this country and in America more account is being taken of school factors and that in the last five or six years considerable progress has been made in locating organisational styles which can influence outcomes. All is not yet however clarity and light in this area and as might be expected contradictory results are commonplace enough (Reynolds 1985).

From an inborn impulse to seek the solace of the great outdoors to Reid's (1985) statement of present day multifactorial thinking may not seem such a huge leap given the time it has taken. It is a point of departure, however we judge the leap, which promises many more creative and useful directions. It is appropriate now to look at some research

types and to note that, although the field of study is so much wider now, the additional complexity has brought with it its own confusions and disagreements.

TRUANCY AND CRIME.

In 1974 a working party in Glasgow was charged with the task of assessing the extent and nature of truancy in the city (I.S.T.D. Scotland: Glasgow Working Party 1974) and the proposition: "... truancy is a major contributor to juvenile violence." was bequeathed to the working party by an earlier report (B.J. Crim', Vol' 10, 1970).

Truancy was defined as "...absence for which there is no acceptable reason." Acceptable in this context meant acceptable to the teacher. Definitions of truancy exercised the imaginations of researchers in this area greatly as will by now be apparent and present difficulty in many studies.

The total absence rate for Glasgow for that year was 9.5% of which it was judged that absence due to truancy ran at 1.3% for the city. Causes of absence were discussed under three headings of home, school and health. Unease over definitions of truancy was betrayed under the discussion of health reasons "...in connection with the health aspect it is interesting to note that although the health of the nation has improved in recent decades...nevertheless the absence rate in schools

today is the same as it was thirty years ago. From this one could conclude that the truancy rate has increased."

There are two points of interest in this local Glasgow study and these are that absence rates have not changed over the last thirty years and that truancy and crime are linked. Fogelman and Richardson (1974) point out that the Leeds School Board established an attendance of 89% in the late 1800s and this has been the norm for the whole country since. Thirty years therefore would seem to be a conservative estimate. As to the connection with crime May (1975) in a large scale study in Aberdeen concluded as follows; "Truancy is neither a sufficient nor a necessary cause of delinquency and in fact is only peripheral to that larger social problem."

Tennent (1970) in a review of literature of the 1940s, '50s and '60s says; "...these studies suggest a significant correlation between school attendance and later delinquency."

Galloway (1982) claims rather enigmatically that; "Although persistent absentees, irrespective of the explanations for their absence, are a high risk for delinquency, the majority are not known by the police to have offended." Burt (1925) was more convinced (writing about delinquents); "Among cases brought to me on other grounds, 24% of the boys and 9% of the girls proved to have been truants in the past." Tyerman (1968) is sure of the connection and in his own study found a correlation between truancy and delinquency of 0.56.

It seems to be the case that a high proportion of delinquent children are also truants but it does not seem to be so clearly the case that a high proportion of truants are also delinquent.

There is, too, the problem of definition of what a truant is in fact and the studies discussed use different criteria in their sample selection and it may well be the case that like is not always being contrasted with like.

CORRELATION AND CAUSE.

A third problem with the research of concern in this study is what may be thought of as 'name calling' or labelling.

It is a problem applied to truancy and delinquency, as discussed, but the same arguments arise with a whole host of other measures.

Reid (1985) has elsewhere provided a list of truant characteristics. The question which is of concern is that although these features may well be characteristic of truants (however defined) are they characteristic enough to discriminate truants from nontruants? If not and it is intended in this study to examine the question, then to continue to parade epithets which can be applied to truants as if to discriminate truants from nontruants is far from the last word on the matter. Many non truants may have these features as many truants may

not. At this point three studies will be discussed in an attempt to examine these difficulties in action.

May's study (1975) has already been referred to and it is useful as a viewpoint in that May is a Sociologist/Criminologist and looks at truancy from that perspective. He is also perhaps unusual in that he is unconvinced of a powerful connection between truancy and crime.

May looked at boys (n=5654) who entered the Aberdeen secondary school system over a four year period starting in 1962. The absentee rate for each child was obtained for the two years previous to entry and a percentage attendance figure calculated. At the end of the period a court check was made and data gathered on each boy who had appeared (n=730). It is of interest that May based his definitions of truancy on total attendance figures in contrast to the great majority of other studies which wrestle with semantics and imponderables to do with parental knowledge and pupil illness. He was able too to compare simple statistical definitions of truancy with teacher generated definitions. Thus May called pupils with less than 12.5% absence the good attenders, between 12.5% and 25% were absentees and greater than 25% were poor attenders. Teachers were asked to assess each child in their class on a questionnaire which had embedded in it a truancy rating thereby generating an alternative definition of truancy. May found it curious that when he compared the attendance of the two groups; "I would have expected that boys rated by their teachers as truants would also have had a poor attendance record. This however proved not to be the case. Of the 142 boys identified from the Behavioural Questionnaire as truants less than 1 in 5 (18%) had an absenteeism record of more than

12.5%...and only a minute 1.4% could be regarded as 'persistent absentees.'"

Reservations already expressed about the comparison of like with like in truancy research are nicely illustrated. Definitions of truancy can have good face validity but should be treated with caution.

May's scepticism about the link between truancy and delinquency has been discussed already but he was confident enough to accept an I.Q. link. Where he is able to add example to worries already expressed about name calling is in the area of social class. May says; "It is important to note that the possession of social disadvantage is relative only. While boys with a record of irregular school attendance or truancy were more likely than other boys to suffer in this way, it was only a minority that was characterised by marked social disadvantage. Even in the case of the truant group only 1 in 8 were the sons of fish workers, 1 in 10 had fathers unemployed or were themselves illegitimate. They were twice as likely to live outside of the high delinquency areas as inside and to come from families of less than five children as from large families. Although they were almost exclusively a manual working class group, the largest single category by far (41%) were the sons of skilled manual workers."

Two major points to be made about truancy research in this study and illustrated by May are again that definitions of truancy are often dubious and subsequent sample selection on the basis of such definitions suspect. Secondly calling names at truants is only of the very mildest interest. The main question should be; 'can these names

discriminate?' May makes just this point with delinquency and social disadvantage.

David Galloway is a prolific researcher in the field of truancy and his Sheffield study (1980) is a good example of the recent approaches to truancy research which has been carried out over the last ten years. Some of the major findings of that research are discussed by Galloway in a paper published in 1982 which is discussed below.

Galloway is aware of the difficulties of definition and sample selection discussed earlier but feels that the search for the 'pure' truant is still worth pursuing; "In the course of the spring and summer terms of 1975, 1976 and 1977, the Chief Education Officer asked all schools to provide the name, sex, age and address of all pupils who had missed at least 50% of possible attendances in the previous autumn term. Each school's E.W.O. then stated whether more than half of the pupil's absences were attributable to illness. If not, the E.W.Os stated which of eight categories accounted for the highest proportion of each pupil's absence."

It would be difficult to criticise Galloway for being less than stringent in his filtering of what he chooses as 'persistent absentees'. He decided on the 50% base line because it is at this level that truancy is severe enough to be referred to the Education and Social Work support services. Secondly this level of truancy requires a decision about legal action from the L.E.A.

Yet there are two reasons to feel disquiet about choosing 'persistent truants' in this sort of way. Firstly it has the face validity referred to earlier and looking plausible as it does it may discourage closer examination. However what is being described is a pattern of human behaviour. To decide where that pattern of human behaviour becomes critical on local and administrative grounds is to say more about local custom and bureaucratic convenience than about the phenomenon about which illumination is sought.

To choose bureaucratically generated figure of 50% and to label that as 'persistent truancy' is shaky. To further contaminate what might well be dubious by asking a range of others, professionals or not, to refine further into categories which are, as Galloway admits, themselves arbitrary is to throw the whole endeavour open to grave doubt.

It seems likely, and Galloway is no more guilty than others, that truancy research has blundered down a blind alley in attempting to make fine distinctions in choosing what shall count as an indicator of truancy. It is the view adopted in this study and argued elsewhere that truants are pupils who are not at school. It will be recalled from May's (1975) study that teacher chosen truants were not necessarily the same as register chosen truants.

Galloway examines the relationship between persistent absence and delinquency and his enigmatic conclusion although quoted already is worthy of repetition; "The analysis by category shows boy truants to be the most delinquent group. Even so, only 36% were known to have offended." Galloway is unable positively to confirm that truants are

delinquent as others have done but the whole exercise of attributing qualities to truants is ultimately flawed if no attempt is made to further test the goodness of fit of the label. The question must be asked; 'Does this label discriminate truants from non truants?' (and delinquents from non delinquents?) The two major criticisms of truancy research are:

1. Agonising over definitions of truancy, school phobic, school refuser, absentee etc, is ultimately futile. Hence for the purposes of this study those who are absent from school are truants for all and any useful purposes.
2. Research has concerned itself with properties of truants. Some researchers have, while collecting properties of truants, noticed that although truants undoubtedly do possess some or maybe all of the properties attributed to them, so do many non truants. In fact the majority of poor, dull, delinquent, domestically abused and so on children do not truant. Hence for the purposes of this study unless properties can discriminate between truants and non truants then the use of such properties may not increase knowledge.

Tyerman's work (1955, 1968) has already been referred to and it will now be considered from the point of view of the two criticisms levelled above.

The general outline of Tyerman's study has already been described. The collection of his sample of truants is described as follows; "From the local education authorities register there were calculated the number of prosecutions for irregular attendance between 1946 and 1952 and the number of families and children who were dealt with in this way. By questioning the school attendance officers the truants were distinguished from those children who had been withheld and information was obtained about their homes and personalities."

Tyerman is laudably self critical throughout his account it must be said and he goes on in his description; "Due to the reliance placed on the memories of the school attendance officers, the descriptions given were neither complete nor entirely reliable. Because of this and also because court cases are not necessarily representative of truants in general, the tentative conclusions reached were tested by intensive personal psychological and sociological examination of a more representative group of forty truants."

These 40 truants were referred by school attendance officers in two different towns and presumably Tyerman had no control over their choice or the criteria of choice. This is not to decry the judgements of truancy officers but simply to point out that there is no way of knowing what went on in the choosing.

Tyerman does some of what is referred to here as 'name calling' viz." The persistent truant is essentially a lonely insecure and unhappy child who finds little satisfaction in home or school and whose parents have little interest in his welfare...certain circumstances are of particular importance. Among the most obvious is the child's failure in school, both in his work and in his relations with other pupils; often also with his teachers."

There is no real facing the fact that nontruants also possess these characteristics too and that there are truants who possess none of them.

Truancy research if it is not to sink in a welter of finer and finer distinctions must attempt to go further than simply to attach labels. It must take on the task of distinguishing between truants and nontruants. If it is not possible to do so then effort should be directed elsewhere in search of an alternative paradigm.

PREDICTION OF TRUANCY BEHAVIOUR

It was a major area of interest at the outset of this study as to whether or not it would be possible to predict children who were at risk in P7 of subsequently entering a career of truancy.

Eaton (1979) writes; "Studies have concentrated more on the older age groups (14-16yrs) when truancy has already become deeply embedded and habitual...However significant findings in the older age group ought to provide a sound basis for further enquiry within the younger age group. Research at this level is fundamental to any programme of early identification and possible prevention of persistent absenteeism."

Eaton was particularly interested in emotional and relationship factors as causes of truancy and puts these in context as follows; "In spite of the frequent reference to 'relationships' and 'anxiety' in the literature, there has been little research specifically directed towards an understanding of the relative importance of each factor. Furthermore, the differential importance of these factors together with

the more established factors such as age, sex, parental status and ability must be more fully determined. Indeed the multicausal nature of persistent absenteeism demands a thorough understanding of these and other factors as a basis for early identification and possible prevention."

He had eight independent variables which he used to 'predict' persistent absenteeism (his dependent variable). These were as follows:

1. Relationship with parents.
2. Relationship with teachers.
3. Relationship with peers.
4. Anxiety.
5. Parental status.
6. Ability.
7. Sex.
8. Age.

The concept of persistent absenteeism has already been discussed as a reef upon which researchers in this field insist on foundering. Eaton's search for the 'pure essence' of truancy ends up purer than most; "The persistent absentees in each age group were randomly selected from a carefully prepared list of subjects who were persistently absent from school without either the school's or their parents' permission. Indeed any absence known to be initiated or supported by parents was excluded in an attempt to obtain a sample mainly of truants. However the difficulty in distinguishing between truancy and some milder forms of school phobia within the 9-14 age group is acknowledged..."

Eaton's study wasn't longitudinal but consisted of two 'snapshots' of a group of 90, 9-11yr olds and 100, 12-14 yr olds. Using Multiple

Regression Analysis (M.R.A.) he assessed the relative importance of each of his independent variables as predictors of truancy for the year of attendance in which the variables were collected. With M.R.A., results are usefully expressed in terms of the amount of the variance in the dependent variable (truancy) which can be accounted for by the independent variables. Eaton's results in this respect are summarised below for both his groups as a base line for comparison with the present study to be discussed in a later chapter.

Eaton's Multiple Regression Analysis (M.R.A.)

Summary(9-11yrs)		Summary(12-14yrs)	
Variable	Rsq	Variable	Rsq
R.peers	0.146	R.teachers	0.209
Ability	0.202	Ability	0.283
Anxiety	0.214	Sex	0.314

Variance above is expressed as a decimal and is referred to as R square.

Figures under Rsq are cumulative and represent 21.4% and 31.4% of variance in absence in each table as displayed. These percentages of the variance 'explained' by the independent variables are based on the assumption that the relationship insofar as it exists is linear and as shall be discussed other possibilities are at least as worthy of consideration.

School factors and truancy.

Discussion to this point has been concerned with fairly traditional thinking about school truancy. What is truancy behaviour? What kind of people exhibit it? Is it possible to predict truancy behaviour from the kind of people truants are said to be? These lines of enquiry with the possible exception of the last shadow the history of truancy research since the beginning of the century and their limitations have been indicated. Complex social behaviour may not be accounted for by just poverty or just dullness or any of the other variables either together or in some combination. Such complex behaviour as truancy must as far as possible be examined in the light of the totality of its social context. Such context will include not only factors 'in' the child or factors 'in' the child's family and home but it must include factors in the institution which truants reject.

Tollan (1983) discusses the effect that teacher attitude towards truancy can have on boys returning from residential care. He found that residential school teachers were less tolerant of truancy than their secondary school colleagues but argued that in general teacher attitude to truant behaviour is important in the generation of such behaviour. His overall analysis of his teacher questionnaire suggests that "...both groups of teachers were aware of the contribution made by teachers to the generation of truancy and of the need for teachers to be supportive of children who become involved in truancy."

Power (1976, 1972), Rutter (1979), Reynolds and Murgatroyd (1980), Cuttance (1980, 1985) have all been referred to already and support the view that an examination of the school itself is necessary to further knowledge in the field of truancy.

Clearly in Rutter (1979), Cuttance (1985), Reynolds (1985) one feature of the 'good' school is that of staff cohesion and commitment to the school, its policies and its pupils. Given such a state of affairs in the staff it would not be surprising to find that they were more child centred than their, perhaps, less committed colleagues in other schools. The idea of child centredness and its converse has been discussed elsewhere (Gerrard 1978) when it was found that when attitudes of teachers are assessed using repertory grid techniques (Kelly 1955; Bannister and Mair 1968; Ryle 1975), child centred teachers are more cognitively 'simple' than traditional or subject centred teachers. This idea will be examined further and in detail in chapter 7, however, some discussion of 'child centredness' is appropriate at this point as its nature is of major importance in Part 2 of this study.

Child centredness and Progressiveness.

Certainly from the writings of Dewey (1916, 1932) distinctions between progressive and traditional ideals have been familiar and such ways of thinking about educational styles have been taken seriously in the

research literature (Bennet 1976). Teachers are aware by virtue of their training of such distinctions and debate in the 1960's about the two great reforms of Primary Education (Plowden 1967 and 'The Primary Memorandum', 1965) was couched in traditional versus progressive terminology.

Progressiveness has come to be associated with child centredness since Dewey (1916) with such styles being characterised by their methods which, broadly, involve activity and pupil directedness. Additionally associated with progressive ideals are open plan schools, pupil directed projects, creative use of teaching space and in general a creative, tender minded, child centred approach to learning.

Traditional styles are characterised by a greater degree of teacher control and pupil submissiveness. A traditional style of learning and teaching is conducted on what Friere (1972) called a 'banking' system, i.e. the teacher deposits knowledge in the child and periodically withdraws it at, for example, examination time.

These are, of course, over general and simplistic exemplifications of two ends of a spectrum with which most teachers could expect to be familiar. Oliver and Butcher (1962) discuss the two extremes as follows: "...formal methods versus activity methods, the function of examinations, the value of certain subjects in training the mind, education as a means of transmitting the cultural heritage, moral values as absolute or dependent on social convention and the relative contributions of individual talent and of training to to the efficiency of the teacher." They feel that this range of labels represents a

description of the values and attitudes inherent in the Progressive - Traditional dimension.

Stones(1968) describes Traditionalness as: "...extremely formal, rigid and orthodox..." and Progressiveness as: "...informal, free...with a curriculum organised through activities related to the interests of the child."

The feelings of pupils

"Some truants blame their teachers for their truancy, but it is unwise to accept truants' excuses at their face value. The limits of self deception are wide and it is easier to blame other people than it is to blame oneself." (Tyerman 1968)

It may be that pupil attitude to school has a part to play in the web of interacting factors which account for truancy behaviour. From ordinary clinical experience there are many children who claim not to like school, school teachers and subjects. These same children often will punctuate their claim by staying away from school.

Mitchell and Shepherd (1967) found that in 11 to 15 year olds there was a relationship between attendance and attitude to school of pupils as described by parents. Mitchell (1972) found that the attitudes of poor attending boys of low social class were indeed negative but not so much

towards individual schools more towards the education system as a whole. Thompson(1975) found that; "...overall teachers were seen as positively as other adults, but also as being somewhat lacking in the more human qualities such as warmth, kindness and happiness." She also reports the study of Jackson and Getzels (1959) where; "...contrary to popular expectations the 'satisfied' and 'dissatisfied' students did not differ from each other in general intellectual ability or in scholastic achievement." O'Hagan (1976) was able to distinguish attitude differences between a group of offenders and non offenders among boys of comprehensive school age. Offenders tending to view teachers as stricter than did the non offending group; "...38% of the offenders regarded teachers as far too strict as compared with 20% of the non offenders."

A.Kavanagh and H.C.M. Carroll (1977) in their major study of truancy in south Wales used two questionnaire type instruments (p43) to measure the attitudes of pupils to various aspects of; "...their school,their class and themselves." A significant majority of poor attenders expressed a negative attitude towards school, saw themselves as academically less able and, as they saw it, experienced a poorer relationship with their teachers. Furthermore, a significant majority of both good and moderate attenders revealed a more positive attitude towards school.

Poor attenders compared to good and moderate attenders derive less emotional satisfaction from their school environment, perceive of their teachers as less concerned for them as individuals and see teachers as less democratic in their dealings with pupils.

Findlayson and Loughran (1967) demonstrated that boys in lower streams were less accepting of work tasks, saw teachers as more authoritarian and felt themselves to be working in a less supportive atmosphere.

These studies used prepared questionnaires as their data gathering tools and thus imposed on subjects a large measure of response set in that categories of interest to be examined are decided beforehand by the researcher at least tacitly in the choice of questionnaire. It is the view in this study that a more valid and interesting examination of attitudes can be undertaken avoiding these difficulties by using Repertory grid techniques.

CONCLUSION AND PROSPECT

No study it seems follows a cohort for a substantial part of its school career as will be done here. The advantage of this approach is that the lives of small groups of interest or even individuals can be followed in some detail with the existence of daily attendance over five years. Because the study is longitudinal it is possible to ask longitudinal questions such as 'Did the boy who was below average in attendance in P7 and who reformed in S1 relapse in S2, 3 or 4?'. A repeated snapshot type of approach of sampling in say P7, S2 and S4 may with luck be able to answer a question such as this but in this longitudinal study no such dependence on fortune is required.

In general the present study seeks to answer the questions below:

1. Who are the absentees in P7?
2. Are these absentees in P7 the same as those who absent themselves in S1 to S4?
3. Can we predict children 'at risk'?
4. If not, can we say why not and what else is operating?
5. Recent research suggests that schools can have an influence. If this is the case what is it about schools which makes a difference?
6. Can the views of children, truant and nontruant, help our understanding of truancy behaviour?

The chapter which follows will therefore describe in detail the study proposed as a response to the general issues raised above and more precisely as a response to these six questions.

CHAPTER 3. THE PRESENT STUDY

In this chapter a description of the present study will be given in the light of what has been discussed in Chapters 1 and 2. It is clear that the study of truancy must be multifaceted if it is to account for the phenomenon in all its diverse aspects. There may be factors in the child, factors in the child's home circumstances and factors in the school which must be taken into account if truancy behaviour is to be understood.

The study naturally falls into two parts the first of which is sociological, psychometric and statistical in nature. The second part is more psychological and addresses attitudinal considerations in both pupils and teachers.

THE EARLY STAGES OF THE STUDY

It was decided that a longitudinal study would be undertaken involving the total intake of a large Glasgow comprehensive school. The cohort of children starting at the comprehensive in August 1981 would be followed from P7 to S4 with respect to measures described later in this chapter.

In December of 1980 permission was obtained from Glasgow Division Education Authority for the study to proceed and a data gathering exercise in the five feeder primary schools for the chosen comprehensive school was begun.

Being an Educational Psychologist it was possible to arrange for the data to be collected on routine school visits, and on occasion school staff and colleagues were kind enough to assist in test administration.

There are 342 children at the maximum in this study and the number of children available rises and falls from test to test or measure to measure. 43 children came from other schools and areas subsequent to the P7 stage.

The rise and fall in numbers of children available is discussed at various points later in the text but in general variation in numbers of children available is due to absence on the day of testing. Regretably follow up testing was not possible due to the time constraints imposed by data collection 'fitted in' to a working day necessarily concerned with other matters.

Feeder Primary Schools.

There are five feeder primary schools for the Comprehensive School which is studied here. All children were in P7 or in a P6 repeat which

meant, in practice, that they were equivalent to P7 in age and destination in that they were all leaving for the secondary stage the following session.

Primary school A provided 54 children. This school was the 'best' feeder in terms of the material prosperity of its catchment area. This consists largely of new housing for which younger employed families were able to pay higher rents or buy. The school was unique in this respect in that the remaining four were serving very deprived areas.

Primary school B provided 83 children being a large school serving a mainly deprived community with some pockets of relative prosperity.

Primary school C provided 32 children and was a smaller school with probably the most severely deprived population.

Primary school D provided 57 children most of whom were deprived.

Primary school E provided 78 children and was the largest of the feeder schools. It served a mainly deprived population.

All schools with the exception of E were housed in new buildings (post war). School E while not badly housed was built in Victorian times. Additional children joined the cohort at later stages for whom no school of origin was usefully available (n=43).

Primary School Rolls For The Period of Study.

School.	1980	1981	1982	1983	1984	1985	1986
A.	154	125	98	84	66	58	72
B.	339	308	266	253	255	246	270
C.	216	183	172	169	154	155	173
D.	285	228	192	185	172	172	152
E.	447	419	405	365	354	338	323

With reference to the above table, given national trends, it is not surprising, that, for the period, school rolls were dropping. School A suffered most as it serves an area with a large number of retired families.

Data Collection.

Data collected for each child are listed below:

1. Age.
2. Sex.
3. Daily attendance during P7.
4. Individual standard scores for each child on a group test of intelligence.
5. Reading age.
6. School.
7. Teachers' behavioural and scholastic ratings of each child.
8. Social data.
9. Attendance at a Child Guidance Clinic.

Taken in order, age and sex were easily obtained from the class registers. In one of the more laborious parts of the study daily school attendance was taken from the register and transferred to computer coding sheets for later analysis.

Separate tests were used to gather information firstly on reading and secondly on number, and verbal and non verbal measures of intelligence, which latter three dimensions were capable of compositing into a figure for I.Q. This second measure was the AH2 devised by Alice Heim et al and published in 1975 by N.F.E.R. This is a paper and pencil group test appropriate for the age group under consideration. It consists of three parts yielding a verbal score, a score for numeracy and a score for perceptual ability. All three were added and a score for 'intelligence' obtained.

From the validity and reliability data, provided in the manual, it is considered that, given the constraints of time and one man operation, the AH2 was ideal for the task. Correlations with other tests which claim to measure the same qualities (concurrent validity) range from 0.61 to 0.87 for the composite 'I.Q.' score. For the verbal score correlations range from 0.55 to 0.84. For the numerical score the range is 0.49 to 0.84 and for the perceptual measure the range is 0.43 to 0.74. All correlations are significant at $p < 0.001$.

For reliability, test retest correlations are all in excess of 0.75. Split half correlations are similarly high and face validity is good.

Reading ability was measured by the Reading Comprehension Test DE by E.L.Barnard (N.F.E.R.test 179). This test is rather old fashioned in style requiring a level of reading comprehension which caused more than a little apprehension before the results came in. "The test is designed to measure a) the child's ability to recognise what the passage as a whole has been about, b) his ability to extract the facts

from a relatively complex sentence or series of sentences, c) his ability to use the facts given in a passage imaginatively, to infer from them something more than has been told, d) his ability to understand the use of individual words or phrases." This is quoted directly from the leaflet accompanying the test and no other reference is provided.

The test aims to examine four areas viz:

1. Global understanding.
2. Detail.
3. Inference.
4. Understanding of the use of individual words or phrases.

Raw scores are standardised with a conversion table provided and although there was no information available concerning reliability or validity there seemed to be good face validity. As will be seen, in Chapter 4, it was a good measure for this cohort of children.

Teachers' estimates of performance were obtained from the Form A as was additional information of a social nature.

Form A data.

An information sheet accompanies each class from P7 to S1 in the secondary school. This contains data of a factual nature as well as subjective comment by the teacher on each child. It is called the Form A and both useful and not so useful information was gleaned from it.

It was possible to gather teacher's estimates of Literacy, Numeracy and Effort on 221 children. Subjective comments provided by teachers were also available and attempts were made to sift through these for structure. The effort was riddled with difficulty as many comments defied categorisation but categories of positive, negative or neutral comment were attempted in the areas of Hearing, Speech, Sight/Vision, Locomotion, Intellect and Personality. It was probable, as a result of the subjective nature of these comments, that judgements made about their likely meaning would not be of great usefulness in predicting future behaviour.

It was also possible from the information contained in the Form A. to pick out those children who took free school meals and those who came from single parent homes. Those who took free schools did so because their families were judged too poor to pay for such meals. This was therefore a good measure of economic level in the child's family and is recognised as such in the literature (e.g.Galloway 1985 and Tyerman 1968).

The fact was not ignored that teachers in P7 may well have some capacity to predict who would truant from school in later years. "Of the small group of National Child Development Study children who were reported to have truanted or to be suspected of it at the age of eleven, 60% were described by their teacher as truanting ...in the past twelve months at sixteen..." (Hersov et al 1980).

P7 teachers in the primary schools were asked to predict future behaviour for each child in their classes on the scale shown below:

Rare truant 1 2 3 4 5 6 7 Severe truant

For reasons of unwillingness to be judgemental on the part of the teachers or for reasons of lack of opportunity for follow up the scale was completed for only 58 children.

It will be seen that attrition in this study becomes a problem when statistical analysis is attempted. It is perhaps not a surprise that in a study of truancy behaviour subjects were often not present when tests and other data collection were undertaken.

THE SECONDARY SCHOOL STAGE OF THE STUDY.

The secondary school, which was the ultimate destination of the cohort, was still, at the time of transfer, fairly large by city standards although not nearly the largest. With over 900 children it served a sprawling and in many parts quite derelict area of Glasgow which is now (but was not then) an area of priority treatment. Detailed statistics for the school are provided in Chapter 7 and further description will be curtailed until then.

The cohort by 1981-82 had been brought together under one roof in S1 of the comprehensive school. A considerable amount of data was by now available and daily attendance from the school register was again

recorded as indeed it was for every subsequent year of the study. Attendance for each year of the study is provided below in the form of average percentages for each year:

Percentage Attendance for Each Year Studied.

	Mean attendance
P7	90%
S1	84%
S2	82%
S3	77%
S4	67%

The experience of a drop off in attendance from primary school through secondary is well documented (e.g.Reid 1985), and this school is not unusual although attendance is poorer than the norms for the city.

As the cohort moved from S1 to S4 various changes took place of an institutional/administrative sort. Examinations were sat and subject choices were made. Some children left and went elsewhere. Some 'left' but remained on the roll by becoming truants. School careers begin to unfold both for individuals and for the group as a whole. Whenever practical, examination results were recorded for each pupil although the nature of the topic under study meant that in some cases data is missing due to the absence of individual pupils. This missing data was recorded as such when it came to be mounted on computer file and statistical distortions are avoided as far as possible and discussed in Chapter 5 when they become unavoidable.

For a minority of children 'O' grade examination results became available and truancy behaviour is discussed in relation to that part of the cohort who were academically successful.

A helpful piece of cooperation from the Reporter to the Children's Panel provided details of those children in the cohort who had attended a children's panel. It was therefore possible to add to the data the dimension of law breaking and to examine school attendance in that context.

All the above data is of a psycho-sociological and psychometric nature and detailed description and analysis is provided in chapters 4 and 5. As a corpus it forms the first part of the study and is brought to a conclusion by the discussion in chapter 6

THE LONGITUDINAL ISSUE.

The issue of the longitudinal nature of this study is discussed at various points and it is appropriate in this chapter to develop the arguments in its favour. The argument against it is simply that a longitudinal study is expensive in time and resources. The major argument in its favour is that broadly speaking it cuts down speculation.

In this study, as has been pointed out, definitions of truancy and all the difficulties they bring in their wake, are avoided. When daily attendance is gathered in the morning and afternoon for each child for five years all absence is truancy.

It was discussed in chapters 1 and 2 whether attributes said to be characteristic of truants would be useful unless those attributes could be used as discriminators. Unless a label can be used to distinguish the truant from the nontruant then the exercise of labelling is dubious and, indeed, may be dangerous. In a longitudinal study where the dependent variable (attendance in this case) is capable of detailed monitoring over an appropriately lengthy period it is possible to test independent variables as predictors and discriminators with considerable confidence. Such confidence may be misplaced in a cross sectional study where dependent variables are typically sampled at intervals. Eaton's study (1979) was discussed in Chapter 2 as an illustration of this.

In a longitudinal study it is possible to find out if truants in P7 are the same people as truants in subsequent years. With a cross sectional approach it would be a matter of luck and highly improbable that such a question could be answered given the snapshot nature of such studies.

THE TEACHERS' VIEW OF THEIR SCHOOL WORLD

The work outlined below describes the content of the second part of the study which is more psychological in nature. It is concerned with the attitudes and perceptions of both teachers and pupils towards truancy and truants.

By 1983, towards the end of second year in secondary school, it was felt that a measure of teacher attitudes to pupils could appropriately be taken given that the cohort was about the halfway mark in the study. For comparison the study school was compared with another similar secondary in terms of teacher attitudes and this is described in detail in chapter 7. As has been discussed in earlier chapters the instrument used was the Repertory grid (Kelly 1955).

Twenty teachers were chosen (ten from each school) by an Assistant Head Teacher (A.H.T.) from each school on the basis that they were representative of the range of opinions, styles and experience of the school staff as a whole. Of course they had also to be willing to take part. The administration of the grids was carried out on an individual basis during school time by a postgraduate student under supervision by this author at that time (Lyner 1983). It was felt that since many of the teachers involved were personally known to this author an experimenter bias could be avoided if others administered the grids, albeit under supervision. Also, since each administration took anything upwards of an hour of time, it would have been logistically very difficult to administer all the grids single handed.

Administration of the grids.

Each teacher was presented with the ten elements (role titles) shown below:

1. HAPPY PUPIL.
2. INTELLIGENT COLLEAGUE
3. DISTRESSED PUPIL
4. PUPIL WHO PLAYS TRUANT
5. NON TRUANTING PUPIL
6. SUCCESSFUL PUPIL
7. LIKEABLE PUPIL
8. SOMEONE I FEEL SORRY FOR
9. PUPIL WHO IRRITATES ME
10. SOMEONE I COULD TRUST

Each element was printed on a separate card and having given a brief explanation of Kelly's theory the subject was asked to record for him/herself the persons best described by these titles.

It was stressed that the researcher was not interested in the names of persons, as such, but that the subject should be clear in his own mind who each one was when presented.

The technique of element presentation followed that of Bannister and Mair (1969). The cards were presented in triads following the rule as far as possible or useful that no two persons should be presented together more than once (Bender 1976). When it is useful for reasons important to the study elements may be deliberately grouped together for special interest purposes. When a triad has been presented the question is asked; "How are two of these alike and different from the third?" The response to this question is the first construct and its contrast is then elicited. Both are placed on the above proforma on row 1 under the appropriate heading and the scoring of all elements on that dimension is carried out by the subject on the basis that possession of the construct scores high at '7' and possession of the contrast scores low at '1' irrespective of what the words might mean. Elements lying

somewhere in between of course are scored somewhere in between. By repetition of this method for each triad the grid is filled such that all elements have been scored on each construct/contrast dimension. This and subsequent recording was done on a proforma similar to that shown below.

Repertory Grid Proforma.

Elements. e.g. Mum, Dad, etc..		7 6 5 4			3 2 1		
		Construct			Contrast		
1		e.g. Bright			Dull		
2							
3							
4							
5							
6							
7							
8							

This presentation of elements in triads is the most common technique but is by no means universal. Ryle (1975) is quite happy to elicit constructs by presentation of two elements at a time; "The use of three rather than two elements is based on Kelly's insistence on the bipolar nature of constructs and the fact that three elements are the minimum necessary to permit recognition of both similarities and differences and to elicit the terms defining both poles of the construct. In practice they can be quite satisfactorily elicited using only pairs of elements." For the purposes of this research, however, the triadic method was followed and the order of presentation was worked out with

attention to the above rule (Bender 1976) only as a guide (no two persons should be presented together more than once). The rule was violated where it was felt that combinations interesting from the point of view of this research should be examined. For example 3 and 4 appear together twice as not surprisingly any link in a teacher's mind between distress and truancy would be of interest. The triads are shown below and the elements are reproduced for ease of interpretation.

Elements and Triads for Teacher's Grids.

Elements.	Triads.
1. HAPPY PUPIL.	2, 3, 10
2. INTELLIGENT COLLEAGUE.	1, 6, 7
3. DISTRESSED PUPIL.	4, 5, 6
4. PUPIL WHO PLAYS TRUANT.	4, 6, 7
5. NON TRUANTING PUPIL.	1, 2, 6
6. SUCCESSFUL PUPIL.	2, 8, 10
7. LIKEABLE PUPIL.	3, 4, 8
8. SOMEONE I FEEL SORRY FOR.	3, 4, 6
9. PUPIL WHO IRRITATES ME.	
10. SOMEONE I COULD TRUST.	

That there are eight triads means of course that there will be eight constructs elicited. There is some arbitrariness in the number of constructs to be elicited and the number should be arrived at by some compromise between the number of interesting combinations of elements and how much of the process it is felt the subject might be willing to tolerate. As the result of an omission noticed only after the grids had been administered element 9 was never presented in the triads and although it is rated on each construct it could have provided a further two constructs had it been fully utilised.

It should be stressed that not all constructs elicited are deemed satisfactory. Physical characteristics such as possession of red hair

or geographical accidents such as '...comes from Kilmarnock..' were not accepted. Subjects were asked to reconsider the elements more in terms of their personalities. This decision must be judged in the light of the needs and focus of the research being undertaken.

THE PUPILS' VIEW OF THEIR SCHOOL WORLD.

The A.H.T. (Guidance) in the secondary school of Part 1 of this study was asked to supply two samples of pupils from S3 which was the point at which the cohort had arrived in their careers (1983-4). One sample was to consist of about half a dozen children who in the view of the AHT were broadly sympathetic to the school. The other sample was to consist of about the same number who were of the opposite persuasion.

Eventually the school provided five reputedly proschool pupils and six reputedly antischool pupils. The administration of the grids was carried out with the help of colleagues and all meetings with subjects took place in school. The role titles below were given to subjects and elements generated from them in the same way as for teachers and recorded on a similar proforma.

Elements and Triads for Pupil Grids.

Elements.	Triads.
1. A PARENT.	1, 3, 6
2. A GOOD TEACHER.	8, 9, 10
3. A BAD TEACHER.	4, 2, 1
4. A PUPIL WHO LIKES SCHOOL.	5, 1, 9
5. A PUPIL WHO HATES SCHOOL.	7, 8, 10
6. A HAPPY DOGGER.	4, 5, 2
7. AN UNHAPPY DOGGER.	1, 8, 2
8. MYSELF.	5, 3, 10
9. AN ADULT I COULD TALK TO.	6, 7, 8
10. AN ADULT I COULD NOT TALK TO.	3, 4, 6

SUMMARY.

The study described and discussed above attempts to follow a cohort of children from primary 7 through to S4 at the end, for most of them, of secondary school. Daily attendance is recorded, morning and afternoon, for five years and related to background data collected largely at the P7 stage. There are additional and ancillary investigations dovetailing with the main study as the career of the cohort progresses.

Information on each child was collected as described above and is presented in detail in Chapter 4. All data were mounted on computer file with appropriate measures taken to preserve the anonymity of both school and child. All data was and is registered under the Data Protection Act.

In S2, class examination marks were collected and data were collected from the Reporter to the Childrens' Hearings concerning appearances of children in the cohort before a panel.

In S3, class examination marks were again collected in so far as they were available and, in the second part of the study, teachers views of truancy and truants were sampled in two schools by the use of Repertory grids. Children's views were also obtained by this method.

In S4, for those of the cohort who remained at school, 'O' grade results were obtained from the school.

Thus a cohort is described in some detail as it moves from P7 to S4. Attempts are made to characterise absence from school as a phenomenon which might be reliably placed in a matrix of other 'knowns' in the lives of cohort members. Other related enquiries are described and discussed in the context of truancy viz.

- a. A comparison of the attitudes of teachers in two Comprehensive schools in Glasgow to deviance and truancy. Repertory grids were used in this study to measure these attitudes.
- b. A comparison of the attitudes of a group of antischool pupils with a group of proschool pupils. Repertory grids were again used as the measuring instrument and the groups were teacher selected.
- c. Law breaking and truancy have long been linked in the literature and a study was made of the subgroup of cohort members who had attended a Childrens' Hearing.
- d. A further subgroup of children from the cohort who had passed one or more 'O' grade examinations was studied in the context of truancy behaviour.

The issues raised in chapters 1 and 2 are addressed in the study described here. Definitions of truancy are problematic in the

literature but with the use of a longitudinal design all absence, as recorded in the school register, can be used as the dependent variable.

Factors within the child are examined for goodness of fit in a predictive model identifying children at risk of truancy as are factors in the child's environment such as primary school of origin, poverty, parental separation and so on.

Factors within the school itself are examined next as causes of outcome in the form of truancy and finally the views of children were sampled using Repertory grids.

Footnote on data handling.

The computer package used for the analysis of the data was the Statistical Packages for the Social Sciences (Nie et al 1975) version 9, universally referred to by its acronym; SPSS. The manual describes the package as follows:

"...(SPSS) is an integrated system of computer programs designed for the analysis of social science data. The system provides a unified and comprehensive package that enables the user to perform many different kinds of data analysis in a simple and convenient manner. SPSS allows a great deal of flexibility in the format of data. It provides the user with a comprehensive set of procedures for data transformation and file manipulation, and it offers the researcher a large number of statistical routines commonly used in the social sciences."

Most statistical routines used in the present study are standard parametric procedures. In particular Factor Analysis, Multiple

Regression Analysis and the descriptive displays of the Frequencies programme. Each of these routines will be described in detail in later chapters.

In the next chapter (Chapter 4) the nature of the cohort will be described in detail.

CHAPTER 4 THE COHORT

A description of the cohort in terms of the test instruments described in Chapter 3 is provided below.

The cohort consisted of all the children who were in the five feeder primary schools serving a large Glasgow Comprehensive school in a largely deprived area of the city in 1979/80.

The five feeder primary schools were described in Chapter 3 and repetition of that information is unnecessary here.

P7 DATA FOR THE COHORT.

It will be noted below that the number of cases varies from measure to measure and this is almost exclusively because children were absent on the day the Primary school was visited for testing. Because of the constraint of single-handed data gathering, it was, regrettably, impossible to pay a second visit to schools for the purpose of, perhaps, catching those subjects who had been absent last time.

Sex of Subjects in P7.

	Boys	Girls
number	172	159
%	51.8	48.2

Age of Subjects in P7.

	11 yrs	12 yrs
number	244	85
%	74%	26%

Psychometry.

Alice Heim's Test (AH2).

The scores reported below are standard scores derived from raw ones: 5 denotes the top 10%; 4 the next 20%; 3 the middle 40%; 2 the next 20% and 1 the lowest 10%.

AH2 Verbal Score.

	Low	1	2	3	4	5	High
Number		12	32	89	43	23	

Mean score=3.17 and slightly skewed towards the high end of broadly a normal distribution as would be hoped for.

AH2 Number Score.

	Low	1	2	3	4	5	High
Number		8	24	78	57	32	

Mean score = 3.41 again skewed towards high scores. This is taken as an indication that the population under study found the tests easier than the population from which the norms were obtained viz: "...comprehensive coeducational schools drawn from urban and rural areas of England (including Greater London, Merseyside and East Anglia) and in Scotland (Stirling and Clackmannanshire)." This is a little surprising but nonetheless gratifying that such a physically and materially deprived population should score above the norms.

AH2 Perceptual Score.

	Low	1	2	3	4	5	High
Number		20	57	75	35	12	

Mean score = 2.8 The skewing in this case is towards lower scores which to an extent will normalise the distribution when compositing is carried out below to provide a measure of I.Q.

AH2 I.Q. Score.

	Low	1	2	3	4	5	High
Number		17	38	81	43	20	

Mean score = 3.05. As suggested above the variations in skew have to an extent cancelled each other out to provide in I.Q. a normal distribution. The scores 1 to 5 are bandings based on actual numerical scores obtained on the test and therefore could be accused of smoothing out and burying individual differences to some degree.

A test of reading ability (N.F.E.R. 197).

178 children were located for this testing. The test is one of comprehension and was not suitable for nonreaders or almost nonreaders. Despite this difficulty the cohort or at least the bit of the cohort available for testing averaged a reading quotient of 97.2 with a range of scores from 70 to 137. It was felt, therefore, that reading ability had been reasonably well sampled by the use of this test.

P7 DATA. TEACHER MEASURES AND ESTIMATES.

Form A data.

An information sheet accompanies each class from P7 to S1 in the secondary school. This contains data of a factual nature as well as subjective comment by the teacher on each child. It is called the Form A and useful, and not so useful, information was gleaned from it. Thus it was possible to gather teacher's estimates of Literacy, Numeracy and Effort on 221 children. The 1 to 5 scale is subjective and presumably not as reliable as the AH2.

P7 Teachers' estimates.

		Estimate				
	Low	1	2	3	4	5 High
Literacy	N =	15	34	99	66	7
	% =	6.8	15.4	44.8	29.9	3.2
Numeracy	N =	12	33	109	59	8
	% =	5.4	14.9	49.3	26.7	3.6
Effort	N =	5	20	102	78	16
	% =	2.3	9.0	46.2	35.3	7.2

As can be seen teachers slant their estimates in an optimistic direction.

P7 Teachers' Prediction of Truancy.

P7 teachers in the feeder schools were asked to rate each child in her class on the scale shown below:

Rare truant 1 2 3 4 5 6 7 Severe truant

For reasons of unwillingness to be judgemental or lack of pursuit by this author the scale was completed for only 58 children. Nevertheless the results for those who were assessed are given below:

P7 Teachers' Prediction of Truancy.

Rating	Number	%
1.	26	44.8
2.	7	12.1
3.	2	3.4
4.	8	13.8
5.	6	10.3
6.	2	3.4
7.	7	12.1

Teachers subjective comment.

Subjective comment made by teachers was also available in the Form A and attempts were made to sift through this for structure. The effort was riddled with difficulty as many comments defied categorisation but categories of positive, negative or neutral comment were attempted in the areas of Hearing, Speech, Sight/Vision, Locomotion, Intellect and Personality. Although these categories are are not displayed in detail they are mentioned as they do appear from time to time in later chapters.

Objective Form A data.

It was also possible from the information contained in the Form A to pick out those children who were taking free school meals and those who came from single parent homes.

Free school meals in P7.

	Yes	No
Number	79	142
%	35.7	64.3

The figures for the city for the period of the study are presented in the table below:

Children entitled to free school meals in Glasgow

Year	Primary	Secondary	Total	N Entitled
1981	64859	57894	122753	33274 (27.1%)
1982	60836	55795	116631	38751 (33.2%)
1983	57345	53086	110431	42231 (38.2%)
1984	55786	48919	104705	44859 (42.8%)
1985	55567	45120	100687	40405 (40.1%)
1986	55688	41420	97108	35858 (36.9%)
1987	55477	38063	93540	38490 (41.1%)

Single parent families in P7.

	One Parent	Two Parent
Number	22	200
%	9.9	90.1

Attendance at a Child Guidance Clinic.

Attendance at a Child Guidance clinic was a variable collected at the end of the study period. It was, however, used as if it were a P7 variable and is shown here for that reason.

	Attended	Other
Number	30	302
%	9.0	91.0

This figure is for a period of five years and is comparable with the figure for the city which is 2% per annum.

Attendance in each year of the study.

Below are summary statistics of P7 attendance.

Attendance Percentage.

MEAN	90.336
MINIMUM	42.381
MAXIMUM	99.286

For most purposes the figure of interest is the mean and these are shown below for each year of the study:

Percentage Attendance for Each Year Studied.

	Mean attendance
P7	90%
S1	84%
S2	82%
S3	77%
S4	67%

Interestingly White (1978) has the following to say concerning his study in Garnock Academy..." We were worried at this time about claims that absenteeism increased enormously on moving from Primary school to Secondary school. We did not have attendance figures for P7 but an average attendance of 92.7% in S1 convinced me, if no one else, that absenteeism did not increase enormously on transfer from Primary to Secondary."

Clearly figures can vary from school to school and perhaps area to area. It would seem in the case of this study that the 'claims' which worried White may be well founded. White too found a rise in absence as children move from Primary school through to S4 and in general this rise is recognised as quite universal (Reid 1985).

CONCLUSIONS.

In this chapter the origins of the cohort have been detailed and descriptions given in terms of demographic factors and in terms of test results. All test instruments have been discussed and a picture of the cohort has been developed.

The groundwork has now been laid to use the discussion of the findings of this chapter to go from an examination of the anatomy of truancy to a consideration of its physiology in the next chapter.

The physiology of truancy for the purposes of this study will be illuminated by attempts to predict children who become truants by using the P7 variables.

Initially, however, attempts will be made by relatively simple means of inspection of the data to identify the nature of the problem. In particular it is possible to look year by year at how the cohort performed in terms of attendance and to compare this with earlier considerations of the data gathered in P7.

In chapter 5, which follows, the main investigation of Part 1 will be described. Can all that is traditionally ascribed to truants be used to predict those who will be at risk in P7? In short, can the P7 data be used to discriminate truants from non truants?

CHAPTER 5 DATA ANALYSIS AND PREDICTION

INTRODUCTION

In chapter 4 the cohort was described in some detail in an attempt to articulate its anatomy by a description of its parts. In this chapter the process is taken further by a detailed consideration of who the truants are in terms of the data available. Included in this the primary schools of origin of the cohort will be examined for possible influence on truancy outcomes. A foretaste of this has been provided in earlier chapters. Finally in this chapter attempts are made to 'predict' children who may be at risk of becoming truants in secondary school using the data collected in P7.

SEX AND ABSENCE

The literature concerning sex differences and school attendance is difficult to interpret for the familiar reasons that different researchers use different definitions of truancy. Tyerman (1968) found that nine times more more boys than girls play truant and Reid (1985) writes that; "While most studies agree that more girls than boys are absent from school, a higher proportion of boys than girls play

truant." He cautions, rightly, that more girls than boys are off school with the consent of their parents and as this is usually not counted as truancy, it is unclear what claims about sex differences actually mean.

Galloway (1985) is quite specific; "The most notable sex difference in statistical analysis was that truancy was significantly more often considered the principal explanation for the absence of boys than girls. This is consistent with the results of other studies, girls' attendance rates are similar to those of boys, but samples of truants, defined strictly as absentees without parental knowledge or consent, contain a disproportionate number of boys."

In the present study comparisons were made between above and below average attenders for each year by sex. The results of Chi square tests of the significances of these differences are summarised below. There are, contrary to findings elsewhere, no differences in attendance between girls and boys in P7, S2, and S3 and in S1 and S4 girls attend school better. That is to say there are significantly more girls in the above average groups for these years. This suggests that there may be reason for concern about boys in S1 and perhaps S4 although the changes hoped for when Standard Grade is in operation may bring more structure and motivation to boys in S4. These results do counter a little the stereotype of boys being poorer attenders than girls although the case is not proven one way or the other.

Summary Table of significance of Sex Differences.

% Boys and Girls Above Average Attendance.

Year	P7	S1	S2	S3	S4
Boys	59	63	66	59	48
Girls	63	76	66	66	69
p	NS	S	NS	NS	S

S < 0.05

Although there are no significant differences in three out of five comparisons in the above table, there is a trend for boys to be less well represented in terms simply of numbers in the above average groups.

WHO ARE THE TRUANTS?

Comparison of above and below average attenders.

"To date the evidence clearly suggests that multidisciplinary aspects are involved in the related phenomena of absenteeism and truancy from school. Absentees and truants tend to come from unfavourable and unsupportive home backgrounds, and have low social class origins, and display psychological or behavioural problems of one kind or another, and have lower intellectual levels than the average child, and have a

number of adjustment and learning difficulties in school, and have fewer friends than many of their peers, and have poorer teacher pupil relationships, and find difficulties in conforming to the rules and regulations imposed by schools." (Reid 1985)

Many of these statements about truants can be tested for this cohort not simply for the purpose of replicating Reid's assertions but as a means of testing the P7 data for its suitability to predict children at risk of becoming truants. If these features of truants, as described by Reid, are of use then it should be the case that the truants in the cohort possess them to a significantly greater degree than nontruants. By selecting all children who take free school meals, for instance, it is possible to compare their attendance with the school attendance of the rest and this can be repeated for as many categories as the literature suggests are characteristic of the truant.

The P7 data can be divided into four classes according to status.

Type 1 data are those obtained from standardised tests and are considered, along with Type 2 data, to be the most objective although there may be constraints due to sample sizes. These Type 1 data consist of Verbal Intelligence (AH2V), Number Intelligence (AH2N), Perceptual Intelligence (AH2P) and the composite Global Intelligence (AH2IQ). Additionally Reading Quotient (RQ) belongs to Type 1. The labels in brackets after the variable name are SPSS labels for which a full explanation will be given later in the chapter.

Secondly there are Type 2 data which consist of Attendance at Child Guidance (CGATT), Number of Parents (MAPANUM), and Poverty (ECON). These variables are classed together on the principle that they are objective measures about which there there could be no disagreement about scoring. Their values are simply read from the data, where they exist.

Type 3 data are more subjective in that they depended for their creation on a P7 teacher's scoring of pupils. They consist of the P7 teachers' subjective estimates of Literacy (SLIT), Numeracy (SNUM), Effort (SEFF) and Future Truancy Behaviour (TFUTR).

Type 4 data were constructed from the P7 teachers' subjective and open-ended comments on the Form A. They are consequently considered here to be the most subjective and therefore the most unreliable of the data. They are comments on Hearing (TEAR), Speech (TTUNG), Vision (TEYE), Locomotion (TLOC), Intellect (TBRAIN) and Personality (TPERS).

Comparisons were made between above and below average attenders for each of these variables and differences between the two groups tested for significance by Chi square. The results of this exercise are summarised in the table below.

Summary Table. Type 1 Data

Measure		AH2V	AH2N	AH2P	AH2IQ	RQ
Year	P7	0.30	0.24	0.44	0.04	0.01
	S1	0.08	0.13	0.41	0.30	0.84
	S2	0.71	0.80	0.95	0.42	0.67
	S3	0.46	0.91	0.79	0.92	0.31
	S4	0.48	0.52	0.15	0.57	0.95

Figures in the body of the above table are probabilities giving the significances of Chi Square. There is little cause for optimism that these traditional sorts of measure can be used to discriminate good attenders from bad except perhaps in P7 with IQ and Reading age. P7, however, is, for the purposes of prediction, the least interesting year. The results using the other types of data are shown below.

Data Types 2, 3 and 4.

Comparison of above and below average attenders.

Data type	Year	P7	S1	S2	S3	S4
2						
CGATT		0.09	0.07	0.41	0.14	0.42
MAPANUM		0.06	0.05	0.01	0.01	0.06
ECON		0.07	0.17	0.02	0.01	0.34
3						
SLIT		0.30	0.66	0.93	0.94	0.77
SNUM		0.11	0.46	0.19	0.66	0.33
SEFF		0.03	0.15	0.91	0.20	0.02
TFUTR		0.05	0.22	0.51	0.57	0.39
4						
TEAR		0.38	0.68	0.61	0.18	0.13
TTUNG		0.66	0.68	0.88	0.88	0.73
TEYE		0.45	0.73	0.39	0.53	0.48
TLOC		0.01	0.44	0.14	0.29	0.55
TBRAIN		0.09	0.61	0.58	0.72	0.71
TPERS		0.17	0.01	0.01	0.01	0.01

The numbers contained in the body of the above table are significance figures of Chi square. Chi square significances of less than 0.01 are reported in the table as 0.01 for brevity.

There would appear in general to be differences of significance between above and below average attenders when the data against which they are measured is more objective (i.e. Type 2 data). This significance disappears the more subjective the data becomes with the exception of TPERS which is uncharacteristically and remarkably significant from S1 to S4. It would seem that, if it were possible to tap into the P7 teacher's assessment of personality, really useful information could be gathered about future truants.

It appears, then, that the distinguishing features of truants by this sort of test are poverty, being from a home with one parent and to some extent having attended a Child Guidance clinic. This last may however be a bit tautologous in that truancy may be why a child gets sent there in the first place. Highly significant in distinguishing above from below average attenders throughout their school life is the P7 teachers' judgement about the pupils personality as expressed verbally in the Form A. This may be a reflection of how useful TFUTR might have been had all the teachers been willing to provide data for it.

It seem that there are certain kinds of data which can distinguish good attenders from bad (above average from below). These data are those which are biographical in nature and objective (Type 2). It would seem that traditional test measures (Type 1) are not useful as discriminators of above from below average attenders.

CHILDREN'S HEARINGS

It was a helpful piece of cooperation from the Reporter to the Children's Panel which provided details of those children in the cohort who had attended a children's panel. Below are frequencies for those children who did attend a 'Panel'.

Number of Children's Panels attended.

Number of panels.	Freq.
1.	21
2.	10
3.	2
4.	4
5.	1
7.	1
8.	1
9.	2
18.	1

Mean = 2.8

It is not a trivial matter for a child to go before a Children's Panel and although half the sample attended once only, those attendances would not have arisen for reasons which can be lightly dismissed.

Referral rate in the population as a whole in 1983 was 17.0 per 1000 or 1.7%. The referral rate to the panel for this cohort was a seemingly massive 12.2%. This figure is likely to be an underestimate of the true situation in that the 1.7% refers to children referred to the Reporter and the 12.2% refers to children in the cohort who actually went to the stage of appearing before a panel. Not all referrals to the Reporter end up by going to a panel. Indeed in 1983 42% of cases referred to the Reporter did not go as far as a panel and were dealt with in other

ways. It is not unreasonable to suggest, then, that the cohort is less law abiding than the population at large. (source S.E.D. Statistics 1985)

Home Supervision as an outcome of Panel attendance.

	Freq	%
Home supervision	28	65.1
Other outcome	15	34.9

Home supervision means that the child remains in the community under the care or supervision of the Social Work department and will have a social worker alloted to the task. This provision runs invariably for one year but has various safeguards of recall to the panel should matters deteriorate. It can be seen that home supervision is the most common outcome as indeed is the case nationally (66.0%)(source S.E.D. Statistics 1983)

Number of charges brought

Number of charges	Frequency
1.	20 (46.5%)
2.	5 (11.6%)
3.	5 (11.6%)
4.	2 (4.7%)
5.	3 (7.0%)
6.	1 (2.3%)
7.	2 (4.7%)
9.	1 (2.3%)
12.	1 (2.3%)
14.	1 (2.3%)
19.	1 (2.3%)
25.	1 (2.3%)

Mean = 3.9

The average number of charges at 3.884 is above the national figure for 1983 which stood at 2.33. However the home area of these children is considerably more deprived materially than the national average and as

we have seen the rate of referral suggests a more 'deviant' population anyway.

Number of children for whom a residential order was made.

	Freq
Non-residential order.	38 (88.4%)
Residential order.	5 (11.6%)

Nationally in 1983 10% went to a List D school as would be the most likely destination of those 11.6% above.

Frequency of attendance at a 'panel' and a Child Guidance Centre.

	Frequency
Non-Child Guidance Cases	32 (74.4%)
Child Guidance Cases	11 (25.6%)

The above indicates that of those who did attend a 'Panel' 25% also attended a Child Guidance Centre as opposed to about 10% of the sample over all. 30 of the cohort attended the Centre overall and therefore 33% attended a Children's Panel as well.

Primary school of origin and panel attendance.

Primary school	Frequency
A.	1 (2.3%)
B.	9 (20.9%)
C.	9 (20.9%)
D.	5 (11.6%)
E.	18 (41.9%)
TOTAL	42

By rank ordering these schools according to frequency of referral to the Children's Panel it is possible to compare the production of 'deviance' in the primary school with the 'production' of truancy and

attrition which is discussed later in more detail. Thus it seems, from the table below, that deviance is inversely proportional to I.Q.

Comparison of Deviance with Other Primary School Variables.

Best attendance	D	>	A	>	E	>	B	>	C	Poorest attendance
Least Attrition	D	>	A	>	E	>	B	>	C	Most attrition
Largest IQ	A	>	D	>	C	>	B	=	E	Smallest I.Q.
Least deviance	A	<	D	<	C	=	B	>	E	Most deviance
Smallest Roll	A	<	C	<	D	<	B	<	E	Largest Roll

There are clearly large differences in the rate with which different feeder primaries produce children who end up at a children's panel. The differences may be to do with size of school and nature of catchment area. School A apart from being the smallest (154) is also the most prosperous in terms of catchment area. School E has about three times the roll (447) of school A and has a very 'poor' catchment area. Schools B, C and D are of various rolls but all have poor catchment areas. It may be, too, that there is an inverse connection with I.Q.

Differences in the cohort with respect to panel attendance

The cohort is now examined with respect to the topic of panel attendance or otherwise to point to differences which could be used at a later stage in the study for prediction. The question to be asked is whether attendance at a Children's Panel has consequences for school attendance or vice versa. Thus those Panel attenders who were above average attenders were compared with those who were below average

attenders and the significance of the differences between them tested by Chi Square. The results are summarised below:

Year	P7	S1	S2	S3	S4
Above	52.4	54.1	41.2	39.3	31.3

%ATT					
Below	47.6	45.9	58.8	60.7	68.8
p	0.21	0.02	.001	.007	.01

The significance figures provided in the table above refer to Chi Square. They indicate along with the rest of the figures that attendance at a children's panel is an important indicator of attendance difficulties with an increasing trend as the career at secondary school progresses.

Children who attend a Panel are distinguished from those who did not as illustrated below:

	Significance of Chi Square
Number of Parents	0.16
Free School Meals	0.004
Intelligence	0.09

It appears that Panel attenders are distinguished clearly by their poverty as measured in this study and to a lesser and non significant extent by number of parents. The direction for number of parents is that 84% of Panel children came from two parent families (cf 90% for cohort) and 56% of Panel children took free school meals (cf 35.7% for cohort). However only 19% were of above average Intelligence and if a one tailed criterion this variable, too, becomes significant.

'O' GRADE SUCCESS AND ATTENDANCE

The last piece of background data to be examined is that of 'O' Grade success and attendance. Consequently those children who gained one or more 'O' Grades were compared for their attendance with those children who failed to pass any 'O' Grades. The significance of the differences in attendances are measured by Chi Square and significances of greater than 0.01 are expressed as 0.01. Results are laid out in the table below. The percentage figures are percentages of children who were of above average in attendance.

Percentage above average attendance.

Year	'O' Grade.	No 'O' Grade	p
S1	54%	46%	0.01
S2	57%	43%	0.01
S3	64%	36%	0.01
S4	71%	29%	0.01

It is quite clear that there is a substantial and highly significant difference in attendance between those who attain one or more 'O' Grade and those who attain none. It is of interest that this is a difference which is less marked in S1 but which strengthens through to S4. It is perhaps an indication of the stress of transfer from P7 to S1 that there is a fall off in attendance from P7 to S1 from which the non 'O' Grade group appear never to recover. School life becomes more and more orderly and predictable for pupils who most closely match the traditional expectations of the school. The reverse is the case for the non-academic pupil.

The background of 'O' Grade success

The group in possession of one or more 'O' Grades was compared with the group which possessed no 'O' Grades on the background variables of Poverty (ECON), Number of Parents (MAPANUM) and IQ (AH2IQ). The results are summarised below:

Poverty. (Free School Meals)	Number of Parents.	Intelligence.
0.01	0.49	0.01
(Significance of Chi Square)		

It is clear from the above figures that intelligence is an important factor in 'O' Grade success. This is less surprising perhaps than the importance of poverty which appears to be emerging more and more as the major factor in school absence, Panel attendance and now academic success or the lack of it.

THE EXTENT OF TRUANCY FROM OBSERVATION

The mean percentage attendance figures have been given before but are reproduced below for convenience.

Percentage Attendance for Each Year Studied.

	Mean attendance
P7	90%
S1	84%
S2	82%
S3	77%
S4	67%

This is not a surprising trend. The Regional Report on School Attendance (Appendix A, 1977) noted a similar trend although not so pronounced in S3 and S4.

Given the above it is possible to select those children from each year who fall below these average levels of attendance and check to what extent the same children appear year after year simply by going through the lists manually.

Numbers of children whose attendance was below average for each year are shown below:

Year	P7	S1	S2	S3	S4
Number	110	64	69	72	101

Of those children above who were below average each year some will be the same children from year to year. The figures below illustrate this.

38.1%	who were below average in P7 were below average in S1.
30.0%	" " " " " P7 " " " " S2.
34.5%	" " " " " P7 " " " " S3.
37.2%	" " " " " P7 " " " " S4.

It would seem that absence has some stability to it in terms of who truants from year to year from primary school onwards.

THE INFLUENCE OF THE PRIMARY SCHOOL

This idea that there is an effect operating upon school attendance in the secondary school which has its origins in the primary school can be further examined by tracing the careers of each primary feeder school's contribution to the cohort.

It is possible to test whether the different feeder primary schools supply children to the secondary who have different truancy behaviour according to their school of origin. It is further possible to look at the way, if any, these different truancy behaviours change as time passes from S1 through to S4.

Attendance in P7. Comparison of all feeders with each other.

It is appropriate to carry out a Oneway Analysis of Variance first of all to assess whether there are indeed significant differences between the different Primary school with respect to attendance.

Accordingly such an analysis was carried out for P7 attendance to assess whether it would be worth looking in more detail at attendance differences in subsequent years. The results of this analysis are laid out below.

Analysis of Variance.

 Comparison of P7 Percentage Attendance by Primary School.

SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F RATIO	F PROB.
BETWEEN GROUPS	4	1420.0977	355.0244	6.150	0.0001
WITHIN GROUPS	293	16915.3652	57.7316		
TOTAL	297	18335.4609			

As can be seen F is highly significant and it is reasonable to assess the differences between individual schools in greater detail using t-tests to measure the significances of such differences.

The table below displays the results of a t-test comparison of the mean attendance at each feeder primary school during P7.

t-test Comparison of P7 Attendance by Primary School.

		s = significant (p < 0.05)						
School	N	%ATT	School	A	B	C	D	E
A	54	91.3			s	s	s	ns
B	81	88.7		s		ns	s	ns
C	32	88.3		s	ns		s	ns
D	53	94.6		s	s	s		s
E	77	89.6		ns	ns	ns	s	

D > A > E > B > C The significance of these differences can be read from the table above. D is significantly better in its attendance than all others. A is significantly greater than B and C but not E and the difference between B and C is not significant.

t-test Comparison of S1 Attendance by Primary School.

	N	%ATT	School A	B	C	D	E
School A	33	88.5		s	ns	ns	ns
B	46	82.5	s		ns	s	ns
C	24	79.4	ns	ns		s	ns
D	48	90.6	ns	s	s		s
E	69	83.9	ns	ns	ns	s	

D > A > E > B > C The order of attendance (%) is maintained in S1 at least nominally. However in terms of significance D is still greater than most but has not exceeded A sufficiently for significance. There is a fuzzing of differences as might be expected.

t-test Comparison of S2 Attendance by Primary School.

	N	%ATT	School A	B	C	D	E
School A	31	85.2		ns	ns	ns	ns
B	43	80.3	ns		ns	s	ns
C	22	78.8	ns	ns		ns	ns
D	49	87.1	ns	s	ns		ns
E	66	83.2	ns	ns	ns	ns	

D > A > E > B > C The nominal order has been maintained but with little actual statistical significance between the attendance rates of the different schools of origin.

t-test Comparison of S3 Attendance by Primary School.

	N	%ATT	School A	B	C	D	E
School A	31	78.1		ns	ns	ns	ns
B	38	72.5	ns		ns	s	ns
C	19	72.3	ns	ns		s	ns
D	48	82.0	ns	s	s		ns
E	63	78.6	ns	ns	ns	ns	

D > E > A > B > C There has been an order change in the nominal ranking of schools of origin. However to all intents and

purposes the order has remained the same at a nominal level but significant differences exist only between the top and the bottom two.

t-test Comparison of S4 Attendance by Primary School.

		N	%ATT	School	A	B	C	D	E
School	A	26	69.4			ns	ns	ns	ns
	B	27	61.8		ns		ns	s	ns
	C	9	66.1		ns	ns		ns	ns
	D	44	71.5		ns	s	ns		ns
	E	51	68.0		ns	ns	ns	ns	

D > A > E > C > B Substantially the same order is preserved even in S4, B and C have reversed places at the bottom perhaps because the number of leavers in S4 becomes a flood or that the influence of secondary school begins to penetrate what seems to be a remarkably robust primary school influence.

Attrition rates.

It is possible to assess feeder primary schools retrospectively by their attrition rates and this is shown below:

Patterns of Attrition

		Numbers of children.				
		p7.	S1.	S2.	S3.	S4.
School	A.	54	33	31	31	26
	B.	81	46	43	38	27
	C.	32	24	22	19	09
	D.	53	48	49	48	44
	E.	77	69	66	63	51

Total attrition is better measured between S1 and S4 as not all feeders sent children to the secondary in equal proportions.

Thus:

School A $((33-26)/33)*100 = 21.2\%$
 B $((46-27)/46)*100 = 41.3\%$
 C $((24-9)/24)*100 = 62.6\%$
 D $((48-44)/48)*100 = 8.3\%$
 E $((69-51)/69)*100 = 26.0\%$

The nominal rank order of least to greatest attrition:

D > A > E > B > C which was the rank order for percentage attendance virtually throughout.

Primary school of origin and I.Q.

It could be argued that the differences in attendance and attrition between the primary schools of origin are due to some other factor independent of the schools such as I.Q. This tested below.

School	A	B	C	D	E	I.Q.(mean)
School A		s	s	ns	s	3.7
B	s		ns	ns	ns	2.8
C	s	ns		ns	ns	3.0
D	ns	ns	ns		ns	3.1
E	s	ns	ns	ns		2.8

s = statistically significant (p < 0.05)

Rank order	%ATT	D >	A >	E >	B >	C
Attrition		D <	A <	E <	B <	C
AH2IQ		A >	D >	C >	B =	E
Roll		E >	B >	D >	C >	A

It is likely that something quite different is taking place in the feeder primary schools between one and another which may not be to do with natural ability on the part of the children and which has a fundamental and profound effect on subsequent secondary school performance. The effect may be an artefact, of course, and would have to be replicated on a wider scale. It is however a trend suggestive of a fruitful line of future research. This area will be examined further later in this chapter and discussed in the concluding chapters.

It seems that children are being prepared by different primary schools to cope in different ways and with different measures of success with the demands of Scottish Secondary School education. There are implications here which will be discussed more fully in the concluding chapters 6 and 9 where it will be argued that the difference, if there is a difference, between Primary and Secondary schools is one of ethos and philosophy.

PREDICTION WITH MULTIPLE REGRESSION ANALYSIS (M.R.A.)

It was a major area of interest at the outset of this study as to whether or not it would be possible to predict children who were at risk in P7 of subsequently entering a career of truancy.

Definitions of truancy as has already been argued and as is accepted in the literature (Hersov & Berg 1980 Chap 2) are fraught with pitfalls,

ambiguities and uncertainty of reporting. Truancy as is the case throughout this study is identical with absence and the source of information on absence is the class register.

Trial definitions of what might constitute a 'dangerous' level of truancy will be constructed and tested as dependent variables against the independent variables of the data collected in P7. In general the remainder of this chapter will explore the relationship between the 'condition' of the cohort in P7 with its absence behaviour as it moves through to S4.

The tool used to measure this relationship is Stepwise Multiple Regression Analysis. This statistical method yields an estimate of the percentage of the variance in attendance or absence (the dependent variable) 'accounted for' by the P7 variables (the independent variables) given that there is a correlation between them.

There are three ways in which M.R.A. handles data and attention is drawn to the differences between them now as they have implications for interpretation of the results. Firstly data is handled by Listwise Deletion and this is the default in S.P.S.S. By this method all cases with missing values are automatically eliminated from all calculations. This can cause large reductions in case numbers however Nie et Al(1975) urge that...'there are sound statistical reasons for preferring Listwise deletion.' This method was used for the data in this study and it yields predictive levels of well below 10% of the variance accounted for and suffers from drastically reduced numbers of cases. For example, if a case has a perceptual I.Q., a verbal I.Q., a number I.Q. but no

reading age then it will be dropped from a calculation involving these variables. It is clear that such a drastic loss of cases reduces the usefulness of M.R.A. results when Listwise deletion is used.

The second method of data handling is Pairwise Deletion and although this gets around the problem of large falls in case numbers Nie et Al (1975) caution against its use in the following terms...' The user should beware that serious problems may result from using pairwise deletion. As a result of computational inaccuracies, little confidence can be placed in multiple regression statistics when pairwise deletion is used. Occasionally, such anomalies as multiple correlation coefficients greater than 1.0 or negative sums of squares and F ratios, are obtained with pairwise deletion. Consequently pairwise deletion is often not justified and should be used with extreme caution.'

In this study pairwise deletion was used to preserve case numbers. However the consequences which Nie et Al promise did ultimately arise and the method must be viewed with caution as a consequence.

The third method of handling data is to ignore missing values altogether through Option 1 in S.P.S.S. which includes all missing values in the calculation irrespective of whether or not they have been declared. This method allows a full consideration of all cases but must give rise to worry when large numbers of zero (missing) values are introduced into the calculations.

It is likely that given these caveats only an estimate can be made about the amount of variance in the dependent variable accounted for by

the independent variables. Two methods will be presented and others referred to only. The results of the third method of data handling are presented and contrasted with pairwise deletion. Listwise deletion is not presented in full as so little variance is accounted for by this method and so few cases 'qualify' for inclusion in the calculation.

Prediction of attendance from P7 data.

What follows describes the best that could be achieved in the present study assuming a linear relationship between the P7 variables and attendance. The question asked is 'What percentage of the variance in school attendance is accounted for and in what order of importance by the P7 variables?' The P7 variables are laid out below for reference.

SPSS Label.	English meaning.
Type 1 Data	
AH2V	Verbal intelligence.
AH2N	Number intelligence.
AH2P	Perceptual intelligence.
AH2IQ	I.Q.
RQ	Reading quotient.
Type 2 Data	
MAPANUM	Number of parents.
ECON	Free school meals.
CGATT	Attendance at a C.G. Centre.
Type 3 Data	
TFUTR	Teacher's prediction of truancy behaviour.
SLIT	Teacher's estimate of literacy.
SNUM	Teacher's estimate of numeracy.
SEFF	Teacher's estimate of effort.
Type 4 Data	
TLOC	Teacher's subjective comment on movement.
TBRAIN	Teacher's subjective comment on intellect.
TPERS	Teacher's subjective comment on personality

one other 'hopeful' correlation is between TPERS (18) and attendance. TFUTR (19) is negatively correlated with attendance in P7, the year of its creation, and S1 but not thereafter which may well be an artifact of low case numbers (n = 58). It ought to be the case that these variables will provide the 'best prediction' in the M.R.A studies described later in this chapter.

In S.P.S.S. missing data is declared as such and operations are carried out on cases for which there is data only with the qualifications expressed above for the case of M.R.A.

Data was first of all was fed in to the M.R.A. analysis grouped with respect to the classification adopted here. More systematic attempts followed and these are described at the appropriate places.

It should be noted that CGATT, because of small numbers of cases, is dropped in most analyses hereafter. Future references to Type 2 data, therefore, normally means MAPANUM and ECON only.

Type 1 Data. M.R.A. Option 1 (Inclusion of missing data)

The data described under the heading of Type 1 presents a problem in that AH2IQ is a composite of the other three and as such may well be a contaminating variable when run in M.R.A. with the other three.

This was examined by running the M.R.A. using Type 1 data as the independent variables both with and without AH2IQ and the results of the analysis are summarised below.

Type 1 Data in M.R.A. Option 1. The effect of AH2IQ.

	P7	S1	S2	S3	S4	Variables.
With AH2IQ	11.5	19.0	22.5	18.2	16.6	Independent = %ATT Dependent = Type 1 Data
Without AH2IQ	13.3	23.7	28.0	23.7	20.5	

Figures in the table are % variance.

There is an increase in the amount of variance accounted for when AH2IQ is excluded from M.R.A. and it is likely that it would be better left out of future runs. It is probable that AH2IQ confounds the other Type 1 variables and masks the contribution of RQ.

Types 2, 3 and 4 variables were run separately on M.R.A. and the results of all running all types of variables are summarised below.

M.R.A. Option 1.

Year	Type of Data			
	1	2	3	4
	% Variance			
P7	13.3	17.4	16.8	9.1
S1	23.7	34.6	28.0	18.1
S2	28.0	34.5	32.7	21.5
S3	23.7	28.8	26.4	16.6
S4	20.5	26.7	22.6	13.0

Figures in the body of the above two tables represent the amount of variance in %ATT accounted for by the independent variables in each case. Type 1 excludes AH2IQ. It seems clear that firstly the amount of

variance accounted for by each class of data increases from P7 to S2 and falls off again through S3 and S4. Secondly different classes of data account for different amounts of variance with Types 2 and 3 most successful and Types 1 and 4 less so. Types 2 and 3 are biographical and teacher's estimate data and appear to be better for predictive purposes than experimenter gathered or generated data.

The next step in the analysis, therefore, must be to maximise the amount of variance accounted for by combining classes. This assumes that each class/category of data accounts for a different part of variance, albeit with some overlap, and that when these are combined together the amount of variance accounted for will be greater than when they are run separately.

It would seem reasonable to take the best predictor or predictors from each class of data and feed them into the analysis together. The table below shows the best predictor variables taken from each class of data.

Year	Type of Data			
	1	2	3	4
P7	AH2P	MAPANUM	SEFF	TPERS
S1	AH2N	ECON	SNUM	TPERS
S2	AH2N	MAPANUM	SNUM	TPERS
S3	RQ	MAPANUM	SNUM	TPERS
S4	AH2V	MAPANUM	SEFF	TPERS

It is clear that the 'best' predictors are AH2P, AH2N, AH2V, RQ, MAPANUM, ECON, SEFF, SNUM and TPERS. These variables were accordingly fed into M.R.A. and the results are presented below.

P7 'Best' Regression

DEPENDENT VARIABLE.. %ATT
SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE
MAPANUM	0.41181	0.16959
SEFF	0.41730	0.17414
AH2P	0.41920	0.17573
TPERS	0.42042	0.17676
ECON	0.42096	0.17721
AH2N	0.42114	0.17736
SNUM	0.42120	0.17741
(CONSTANT)		

S1 'Best' Regression

DEPENDENT VARIABLE.. %ATT
SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE
ECON	0.55891	0.31238
MAPANUM	0.56822	0.32287
SNUM	0.57048	0.32544
SEFF	0.57199	0.32718
AH2N	0.57278	0.32807
AH2V	0.57419	0.32969
RQ	0.57506	0.33070
TPERS	0.57536	0.33103
(CONSTANT)		

S2 'Best' Regression

DEPENDENT VARIABLE.. %ATT
SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE
MAPANUM	0.57735	0.33333
SNUM	0.59214	0.35063
ECON	0.59655	0.35588
RQ	0.59826	0.35791
AH2N	0.59920	0.35904
AH2V	0.59980	0.35976
TPERS	0.59990	0.35988
AH2P	0.59991	0.35990
(CONSTANT)		

S3 Best Regression

DEPENDENT VARIABLE.. %ATT
SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE
MAPANUM	0.52802	0.27881
SNUM	0.53806	0.28951
RQ	0.54286	0.29470
ECON	0.54614	0.29827
AH2N	0.54678	0.29897
AH2V	0.54731	0.29955
TPERS	0.54780	0.30009
SEFF	0.54798	0.30028
(CONSTANT)		

S4 'Best' Regression

DEPENDENT VARIABLE.. %ATT
SUMMARY TABLE

VARIABLE	MULTIPLE R	R SQUARE
ECON	0.50648	0.25653
MAPANUM	0.51374	0.26393
AH2V	0.51701	0.26730
TPERS	0.51970	0.27008
RQ	0.52136	0.27182
SNUM	0.52245	0.27296
SEFF	0.52584	0.27651
AH2P	0.52624	0.27693
AH2N	0.52639	0.27709
(CONSTANT)		

It would appear from the above results that there is little to be gained from regrouping the 'best' of the predictor variables. The best single predictors are the two Type 2 variables MAPANUM and ECON with the Type 3 variable SNUM. Little variance is added after they have been fed into the M.R.A. This is illustrated by the summary table below:

	Year	% Variance				
		P7	S1	S2	S3	S4
Type 2		16.9	31.2	33.3	27.8	25.6
All Types		17.7	33.1	36.0	30.0	27.7

In P7 17.7% of the variance in %ATT is accounted for by the other data collected from the cohort that year.

The table below summarises the above results and compares them with those of Eaton (1979).

% Variance	Eaton's % Variance
P7 17.7	21.4%
S1 33.1	
S2 36.0	
S3 30.0	31.4%
S4 27.7	

P7 is the only year directly comparable with Eaton's study and the percentage variance explained is comparable in each despite the different variables used and different definitions of truancy. The variables used in each study could be seen as broadly similar in many respects but the comparability of results when all absence is compared with Eaton's definition of truancy lends further weight to earlier arguments that the struggle for the 'pure' truant is hardly worth the effort. It is of interest too that Eaton 'explains' 31.4% of the variance in the older age group and in S3 in this study 30.0% is explained. However S1 and S2 are higher than the other years and indeed higher than Eaton's 31.4%.

Clearly some comment on the 'goodness' or otherwise of these 'prediction' percentages is necessary. However guidance in the matter is hard to come by.

In theory at least if the relationship between P7 data and %ATT can be expressed by a straight line on which all cases lie then it is true that 100% of the variance in %ATT is 'explained' or 'accounted' for by the P7 variables.

If on the other hand only 20% of the variance in %ATT is accounted for by the P7 data then the M.R.A. equation is the equation of the 'best fit' line where most cases will not lie on it. An examination of residuals will reveal how good a fit the equation is but in general it seems clear that the higher the percentage of the variance accounted for the better the predictive power of the independent variables.

However, in a sense, counter to this view Kerlinger and Pedhazur (1973) suggest that multivariate analysis should reflect the theoretical or practical value of the results and not just the amount of contribution to variance. Eaton in quoting this view seems to resist despair at 'low' variance figures and is willing to put up with what is felt in this study to be poor predictive power.

Problems of 'status' in the data.

There is a problem in M.R.A. when data of below interval scale status is fed into the analysis. This is applicable to such important but, nevertheless, nominal data as Number of Parents (MAPANUM), Sex and Free school Meals (ECON).

Eaton appears to ignore this issue and indeed Sex is his third best predictor. It is a problem which cannot be ignored but can perhaps be diminished in impact by argument about the purpose of statistical analysis in general. Phillips (1973) has the following to say:

"What implications does measurement theory have for statistical practice? Some authors have classified statistical methods according to the measurement scale involved. Some statistics books are organised on this principle. Certain procedures, they say, are most appropriate for ordinal data, others for interval data, and so forth...This argument seems to me to be incorrect for two reasons. In the first place, it is not very practical advice because of the difficulty in determining the level of measurement. In the second place it fails to recognise that statistical theory is entirely neutral about matters of measurement. The formal statistical apparatus requires only numbers as inputs; nothing is said about what the numbers represent. If the experimenter wishes to use a statistical procedure on ranks which requires averaging the ranks, he may do so, for there is no assumption in the procedure that says it is reserved for interval scale data or above. If the experimenter, in his good judgement, feels he can meaningfully interpret the results of the statistical procedure, then his use of the procedure is justified."

The important thing that Phillips is saying is that measurement theory and statistical theory are quite separate and to overburden one with the other is unnecessarily restricting. The important step in Social Science is the interpretation of the results of statistical procedures as much as the procedures themselves. An average number of parents for the population of 1.7 can be interpreted quite comfortably as could the same number under the headings of Sex and Free school meals all of which are categorical (Nominal) variables.

With these issues in mind further examination of the data using M.R.A. is carried out below.

PREDICTION FROM PRIMARY SCHOOL OF ORIGIN

The apparent powerful effect of the primary school of origin has been discussed earlier in this chapter and elsewhere. It is worth carrying this theme further by attempting to 'predict' differentially according to Primary school of origin. The Type 2 data for each child according to school of origin are used as the independent variables.

The table below summarises the results of the M.R.A. for each primary school.

Figures in the body of the table are R.sq (% variance). The % attendance for each year is used as the dependent variable. The independent variables are ECON and MAPANUM.

YEAR	SCHOOL				
	A	B	C	D	E
S 1.	79.3	40.9	10.2	32.8	6.9
S 2.	72.4	44.8	5.3	40.5	11.0
S 3.	65.8	33.7	12.5	40.6	5.7
S 4.	51.6	34.8	9.8	22.4	9.2

Using Free School Meals and Number of Parents it seems that quite good levels of 'prediction' can be made for some school with respect to attendance. There is, however, large variation from one school to

another in the efficiency of this but there appears to be an unexpected consistency, over the years from S1 to S4, in the level of prediction within each school.

These results do give further encouragement to the growing conviction that the primary schools of origin are worthy of further study and this will be discussed in Chapters 6 and 9.

TESTING DEFINITIONS OF TRUANCY LEVELS

It has been argued throughout that studies of truancy falter on definitions of truancy and that in a longitudinal study of this sort it is possible to 'try' different definitions generated by the data itself.

It is important to look at different bands of attendance and to attempt to examine if some levels of attendance are more amenable to 'predictive' techniques than others.

It is possible to select attendances at different bands, for instance at 10% and up in 10% jumps with a regression at the end of each jump. To put the question another way; 'Are there levels of attendance which mean something in terms of the P7 data? When does nonattendance at school become most sensitive in terms of our ability to predict it in terms of what we already know of the children?'

This is perhaps the only case in this study when the question of what if anything truancy, as opposed to absence, might mean operationally. The above suggestion for 10% jumps is impractical as there are far too few pupils in each subgroup to allow MRA to run successfully. Instead it would be a reasonable to compare those whose attendance is less than average each year in terms of our ability to predict their attendance using the P7 data with those whose attendance is above average. It will be recalled that mean attendances for each year were as shown below:

Percentage Attendance for Each Year Studied.

	Mean attendance
P7	90%
S1	84%
S2	82%
S3	77%
S4	67%

It is possible using these mean figures as watersheds to answer the question; 'Are poor attenders easier to predict than good ones?' and vice versa. A summary table for all years is supplied below.

Groups	Year	P7	S1	S2	S3	S4
Above mean		28.2%	48.1%	53.9%	44.4%	32.8%
Below mean		6.2%	17.5%	15.6%	11.3%	7.8%

For that group of individuals whose attendance was below average in P7, 6.2% of the variance in this attendance is accounted for by Type 2 data collected in that same year. For the 'good' attenders ability to predict is better at 28.2%. At P7 neither level of prediction is

impressive. Prediction becomes better in S1 to S4 for 'good' attenders the ability to pick out poor attenders using this data is not improved.

It would appear that the difference between 'good' and 'bad' attenders is not one of degree but more likely a qualitative one. The lives of 'good' attenders may be, in a sense, more orderly and therefore more easily characterised than the lives of 'bad' attenders. There is simply, and obviously, more uncertainty in conditions of high entropy than there is in low.

CAUTION ABOUT M.R.A.

Attention should be redirected at this point to the discussion concerning missing values at the beginning of this chapter. The results which are presented above are arrived at on the basis of calculations carried under Option 1 which; "...causes the subprogram to include all cases in the calculation of correlation coefficients regardless of any missing data values which may be defined." (Nie et Al, 1975). This is the least critical or stringent treatment of data available and provides results which are quite limited by the shortcomings of the approach.

It was pointed out earlier in the chapter that the default option of Listwise deletion of cases reduces case numbers drastically and provides measures of variance on M.R.A. which rarely exceed 10%. This

must be considered to be the most stringent treatment of data but because of this stringency, it is felt, is so distorting of the data to be valueless.

Despite the warnings against the use of Option 2 (Pairwise deletion) it was felt that its use, if treated cautiously, could provide a balance and yardstick for comparison.

M.R.A. using Pairwise Deletion.

As can be seen from the table below a Pairwise deletion is more 'realistic' in the number cases and scores of variables it 'chooses'. The variables shown are simply a selection from the whole data set provided as an example.

VARIABLE	MEAN	STANDARD DEV
RQ	97.2416	12.7538
AH2P	2.8090	1.0366
AH2V	3.1658	1.0287
ECON	1.6425	0.4803
SEFF	3.3620	0.8341
TPERS	1.8158	0.8888
%ATT	90.2849	7.9885
AH2V	3.1658	1.0287

The same procedures were carried out with the data using M.R.A. with Pairwise Deletion and the results are summarised below.

Type of Data

Year	1	2	3	4
P7	4.2	5.3	5.6	4.7
S1	3.8	3.7	11.7	12.4
S2	1.7	4.6	7.1	12.0
S3	3.3	12.7	8.7	12.8
S4	2.7	3.1	11.4	9.1

The main effect of Pairwise Deletion is a large fall in Rsq over years and over variable classes. There is, also, less pattern of increase from year to year and from one variable class to another. It is clear that AH2IQ can be omitted from consideration as its presence cannot be said to contribute to the analysis. Indeed its absence allows RQ to enter the equation to some effect.

The table below summarises the most important variables as they are entered at each stage of the analysis.

Type of Data

Year	1	2	3	4
P7	RQ	ECON	SNUM	TPERS
S1	AH2P	CGATT	TFUTR	TPERS
S2	AH2V	ECON	SEFF	TPERS
S3	RQ	ECON	SEFF	TPERS
S4	AH2P	CGATT	SEFF	TPERS

There is less clearly a leading class of variable as far as prediction of %ATT is concerned. There is some consistency, however, in that TPERS is still the exclusively 'best predictor in Type 4. The 'best' predictors are AH2P, AH2V, RQ, ECON, CGATT, SNUM, SEFF, TFUTR and TPERS. It is probable that if CGATT and TFUTR were excluded there would be less distortion of the analysis as both of these variables, have

small case numbers. Thus M.R.A. was run without these two variables and the results are summarised in the table below.

Year	P7	S1	S2	S3	S4
Rsq%	8.3	14.5	15.6	19.2	12.6
'Best'					
Variable	RQ	TPERS	TPERS	TPERS	TPERS

As with Option 1 Rsq rises initially and falls in S4 but the type of variable most prominent is quite different with TPERS (Type 4) coming in first to the analysis virtually each time. How much this can be trusted as a result is open to debate given the caveats already mentioned concerning Option 2.

Mean Substitution.

A final possibility is available in that mean values can be substituted for missing values and this gives a much more realistic picture of the data as illustrated below, again for the 'best' variables.

P7. The Mean Substituted for Missing Data.

	MEAN	STD DEV
%ATT	90.285	7.480
ECON	1.643	0.386
AH2V	3.166	0.784
AH2P	2.809	0.790
RQ	97.242	9.189
SEFF	3.362	0.670
TPERS	1.816	0.889

As can be seen mean values are realistic and case numbers are as high as possible. However as can be seen below the variance accounted for is very small but it is of interest that TPERS and ECON again figure prominently.

P7. Variable Order.

- TPERS
- SEFF
- ECON
- AH2V
- RQ
- AH2P

Total variance accounted for = 5%

The results using mean substitution for the other years are shown below.

S1. Variable Order

- TPERS
- AH2P
- ECON
- SEFF
- RQ
- AH2V

Variance accounted for = 9.1%.

S2. Variable Order

- TPERS
- ECON
- SEFF
- RQ
- AH2V
- AH2P

Variance accounted for = 9.0%.

S3. Variable Order

- TPERS
- ECON
- SEFF
- AH2P
- AH2V
- RQ

Variance accounted for = 11.2%.

S4. Variable Order

- TPERS
- SEFF
- ECON
- RQ
- AH2P
- AH2V

Variance accounted for = 5.7%.

PREDICTING ABSENCE USING CONSTRUCTED VARIABLES

Having achieved small success, in general, in predicting truancy, assuming a relatively simple relationship between the dependent and independent variables, various other models were examined.

Predicting absence using variables constructed by factor analysis

A fresh approach was tried to seek underlying structure in the P7 data by the technique of Principal Component Factor Analysis. This is a set of techniques which attempts to extract discrete and relative simplicity of structure from a complexity of correlated data. The three ordinary steps are:

1. The preparation of a correlation matrix.
2. The extraction of the initial factors-the exploration of possible data reduction.
3. Rotation to a terminal solution-the search for simple and interpretable factors.

The method of rotation chosen is EQUIMAX as it does not favour either the columns or the rows of the Factor Matrix. The S.P.S.S. manual has the following to say; "In contrast to QUARTIMAX, which centres on simplifying the rows of a factor matrix, the VARIMAX criterion centres on simplifying the columns of a factor matrix... EQUIMAX follows the general reasoning of the QUARTIMAX and VARIMAX criteria. It can be thought of as a compromise solution of the preceding two. Instead of

concentrating either on simplification of the rows or on simplification of the columns, it tries to accomplish some of each; hence the name EQUIMAX."

Thus all the P7 data was Factor Analysed (including AH2IQ with AH2V, AH2N and AH2P) and the factors which the process yielded are shown below:

Factor	Eigenvalue	Pct of Var
1	6.14926	69.7
2	1.14187	12.9
3	0.85504	9.7
4	0.68021	7.7

	Equimax Rotated Factor Matrix			
	F 1	F 2	F 3	F 4
AH2V	0.73	0.29	0.19	0.10
AH2N	0.69	0.27	0.28	0.07
AH2P	0.71	0.24	0.11	0.00
AH2IQ	0.91	0.24	0.28	0.04
RQ	0.68	0.40	0.15	0.23
MAPANUM	-0.05	-0.06	-0.04	0.50
ECON	0.10	0.07	0.03	0.54
SLIT	0.41	0.72	0.30	0.23
SNUM	0.45	0.67	0.27	0.28
SEFF	0.28	0.56	0.39	0.03
TLOC	0.24	-0.14	0.65	0.29
TBRAIN	0.17	0.80	0.14	-0.23
TPERS	0.00	0.20	0.44	-0.05
TFUTR	-0.16	-0.41	-0.79	0.14

The numbers in the table above are factor loadings and represent the weighting of each variable on each of the four factors. Thus, for example, ECON is loaded to a negligible extent on all but Factor 4 as is the case with MAPANUM. No other variables contribute greatly to Factor 4 and it is reasonable to assume therefore that Factor 4 is something to do with poverty and home circumstances.

Factor 1 is loaded with AH2V, AH2N, AH2P, AH2IQ and RQ. To a lesser extent with SLIT and SNUM. SLIT and SNUM are however weighted more heavily on Factor 2 as will be seen and so can be excluded from Factor 1. It is not hard to guess that Factor 1 is something to do with test measured intelligence or objective intellect.

Factor 2 loads with SLIT, SNUM and SEFF, all teacher estimates of intellectual 'goodness'. In addition TBRAIN loads heavily on this factor and although it does not clash with the other three it should be borne in mind that it has dubious antecedents. Thus Factor 2 could be called subjective intellect without too much strain on credulity.

Factor 3 is loaded with TLOC and TPERS with a heavy negative loading from TFUTR. TLOC and TPERS along with TBRAIN already mentioned have doubtful status as useful variables due to the circumstances of their birth. They were all three fabricated out of the teacher's subjective comment on the Form A. TFUTR is negatively loaded due to its scoring layout.

To return to the main theme of this chapter, which is prediction, the variables making up the above four factors were fed into a M.R.A. with no improvement in the level of prediction. Disappointingly poor enough, indeed, to justify the use of nonlinear models of the relationship between %ATT and the P7 background variables.

Non-linear models

If the relationship between the P7 background variables and %ATT is not linear it may be that whatever relationship exists between them is better described by a polynomial with one or more 'bends' (Nie et al 1975). This hypothesis is tested by transforming the factors by squaring each and adding it into the regression with its unsquared version to test for a polynomial with one 'bend'. Cubing each factor tests a two 'bend' hypothesis and so on until increases in predictive power level off.

Initially each hypothesis was be tested in turn with P7 only until either the effort seems worthless or a reasonable fit worth trying with other years is arrived at.

It was found that there was little to be gained from introducing polynomial terms into the regression equation and this attempt too was abandoned after no increase in variance accounted for was achieved.

Predicting attendance using an interactive model

It is assumed in Regression Analysis that the relationship between the dependent variable and any given independent variable is the same across all values of the remaining independent variables. The fit of

the regression equation will not be as good as it might be if interactions between the independent variables were taken into account. This problem, if it exists, is most easily addressed by introducing multiplicative terms into the regression equation. The SPSS manual has the following to say:

"The most widely used approach to the problem of interaction is the inclusion of multiplicative terms in the regression equation. As the name implies, a multiplicative term is a product of two or more other terms. It is a new predictor variable created by multiplying scores on one predictor by corresponding scores on one or more others. For example the equation

$$Y' = A + B_1X_1 + B_2X_2 + B_3X_1X_2$$

includes the two predictors X_1 and X_2 and the multiplicative term X_1X_2 created by multiplying X_1 scores by corresponding X_2 scores." However this attempt too yielded no better results than had already been achieved with the simpler original model. It is instructive that no better results were achieved by this method as it is the one recommended by the S.P.S.S. manual to cope with nominal data. There was discussion earlier in this chapter concerning the status of data (nominal, ordinal etc) and it would appear that, in effect, the use of categorical variables (ECON, MAPANUM, SEX) may not be so distorting as traditional treatments of the issue suggest.

These latter results are more in line with what is a growing conviction in this study that levels of prediction using the types of variables gathered in P7 are not useful with the possible exception of primary school of origin. More detailed study of that special case is however

needed and currently, although not part of this study, the primary schools of origin of another large Glasgow comprehensive are being investigated.

The implications of and conclusions to be drawn from these results are considered next in chapter 6 before the study moves finally to Part 2 and an overall conclusion.

A brief summary of what has been achieved here is, however, appropriate at this point.

There is a clear trend in the evidence at the beginning of this chapter that poverty is a reliable indicator of absence behaviour. No confidence can be placed in any other variable with the important exception of P7 teacher's assessment of personality and together these two present the best hope of characterising children at risk of future school absence. The characteristics of personality used by P7 teachers in their assessments are not accessible in this study but could be a useful future area for study. Poverty remains as the one accessible yardstick of absence and as a theme will be developed further in the concluding chapters.

It is clear that insuperable statistical difficulties lie in the way of a proper analysis of this data using M.R.A. The handling of missing data has presented so many problems that this technique has added little to our ability to predict children at risk in this study.

It is clear, however, that even with the most optimistic handling of the data the level of prediction is not usefully high. The Primary school of origin remains, nevertheless, as an area which, along with the P7 teacher's assessment of personality, is worthy of future study.

CHAPTER 6 CONCLUSIONS TO PART 1.

Although truancy as a phenomenon is relatively stable it continues to arouse public and professional concern (Worthington, A 1977). For this reason and because schools have a felt need for support in the area, it is firstly worthy of study and secondly best studied in a longitudinal context to avoid the possible distortions of the repeated snapshot approach. It was noted in addition that truancy is costly in money terms and in professional time. It is possible to envisage that if school absence did not exist at the level it does (up to 20%) there would be an immediate gain in efficiency in terms of per capita school costs (salaries, materials, buildings etc).

It was established at the very beginning that the study of truancy was justified on various grounds despite its endemic character and that problems of definition present difficulties which are better sidestepped than confronted despite the energy devoted to the topic in the literature. The advice of the H.M.I. Report (1978) that register data is misleading

"... unless it is expressed for each child in half days and examined against each child's record throughout the term", was taken seriously.

A study was outlined which utilised half day attendance on each child, morning and afternoon for five years.

The study consists of two parts. Firstly an attempt has been made to examine the traditional factors said to characterise truants. Features concern such aspects of the child as personality, I.Q., reading age as well as aspects of his family and home such as poverty and number of parents. Secondly the attitudes of teachers and of pupils to the 'world' of school dissatisfaction are measured using Repertory grids.

These two parts of the study shadow the development of thinking about truancy as is apparent in the literature and this structure provides the framework for reporting.

THE BACKGROUND.

Historically the study of truancy could only begin when its possibility was created by the introduction of compulsory education. The rejection of such public munificence by some children was originally, and unsurprisingly, seen as the fault of the child. From an innate predeliction to wander off to simple dullness or foolishness, truancy was, in the first quarter of the century at least, seen as being caused by an internal defect in the child.

Although in the 1930's and 1940's there was a move away from 'in child' approaches even in 1955, Tyerman, although generally quite balanced in his views, still felt that most truants were unhappy at home and at school and 50% were unpopular with their classmates. Tyerman

illustrates the mood of the period, however, in the swing towards social causality by arguing that the problem of persistent truancy is the problem of a bad home.

It should be remembered that, unlike now this was a period when educational psychologists spent a major part of their professional lives testing the attributes of children.

Selection was still the norm and internal causation was probably more respectable than factors in the environment. It was perhaps more comfortable and comforting to attribute blame to internal structures as we do yet to psychopaths with their irremediably damaged personalities and their extra 'Y' chromosomes.

Questioning of links between truancy and crime runs almost throughout the literature and although May (1975) is unconvinced of the connection, other major authors (Tennant 1970) accept that there is a substantial correlation between the two.

The major 'work' of the first part of the study took place in 1980-81 when the cohort to be studied was spread out over five different feeder primary schools described in Chapter 3. The problems of data collection at that stage seemed immense as in retrospect they in fact were. The task, to begin with, was to collect reading, number and I.Q. types of measures from the 300+ children in their last year of primary schooling.

This data was collected on routine school visits by the author and although most schools were very accommodating one or two simply tholed the exercise. Indeed one school 'mislaid' a number of reading and I.Q. test scripts and these were never recovered. Attrition of this sort and of the sort inherent in a truancy study (i.e. absent subjects) became a major headache which was not cured and attention has been drawn to it at various points in the first part of the study. It is difficult to estimate to what extent missing data might distort results but wherever data is missing in any statistical analysis various methods of handling the problem are discussed, particularly in Chapter 5.

Attendance was easier, in one respect, to collect as it is 'fossilised' in the registers. Although it was a mammoth task to record each child's attendance for five years it was placid and unworrying compared to the collection of test data.

Form 'A' data, too, was readily available and relatively easy to transfer to computer coding sheets. One exception to this was the teacher's subjective comment. This is to be found in the SPSS labels TPERS, TLOC and TBRAIN standing for teacher's subjective comment on personality, movement (locomotion) and intellect respectively. They were unreliable and often confounding variables which were dropped or treated with caution.

Another disappointingly sparse variable was TFUTR which was collected on separate school visits and is the label for teachers prediction of truancy behaviour. Only 58 pupils were given a prediction by their P7 class teacher and TFUTR joined the ranks of confounding and unhelpful

variables which were treated cautiously in M.R.A. runs. Class teachers were reminded verbally on more than one occasion that returns were required but most seemed reluctant to respond.

The quality of data which was obtained, with the above caveats, was satisfactory for the purpose in this author's view, and although there is cause for regret where case numbers are small, the cohort does not seem to be radically dissimilar from the population at large.

Attendance figures for the secondary school in the study are at the poorer end of the scale for the city and to account for that by a plea to the poverty of the area begs the question. It does supply a reasonable amount of variance for later M.R.A. equations to operate on.

Part 1 of the study began by discussing the problems of defining truancy. Difficulties with definition make it quite hard to compare results between studies as often different definitions are used.

It was argued that to overcome definitional problems which have hampered many previous studies a longitudinal study would solve the major difficulties and free register data for use. The use of register data sanctioned by a longitudinal approach gets around definitional difficulties by treating all absence as truancy.

EARLY WORK: FACTORS IN THE CHILD AND HIS ENVIRONMENT

It will be recalled from Chapter 2 that early attempts to understand the phenomenon of truancy focussed on possible defects in the child. In Part 1 of the study a similar approach was taken with discussion in Chapter 3 of psychometric measures taken from the cohort and in chapter 4 with a presentation of the results of the use of these measures.

The Alice Heim test (AH2) gives scores in verbal ability, number ability, perceptual ability and a composite score made up of all three which gives a measure of intelligence. If truancy is associated with a deficiency in some or all of these areas as the early literature argued then truants should score poorly on these measures. Poor attenders will also score poorly on the AH2 series of measures.

This hypothesis was tested for different variables as a reflection of the earlier literature. Poor attenders were compared with good ones for the incidence of free school meals and so on through the P7 variables.

As will be seen in the table below, there is some weight to be given to the earlier findings in the literature. Poor attenders are significantly different from good attenders on some of the measures used.

The variables which reached significance (Chi Square) are displayed in the table below:

Variables for which the scores of above and below

 average attenders are significantly different.

Group.	Year.	P7	S1	S2	S3	S4
IQ		0.04	ns	ns	ns	ns
Reading		0.01	ns	ns	ns	ns
N of parents		0.06	0.05	0.01	0.01	0.06
Poverty		0.07	0.17	0.02	0.01	ns
Personality		ns	0.01	0.01	0.01	0.01

Poverty and number of parents along with the P7 teachers perception of personality appear to be the 'best' distinguishers of attendance in the secondary school. Clearly the last of these is (in this study) the least accessible but poverty and number of parents are relatively public data. There are obvious political and management consequences for Government and L.E.As if the children of the poor and socially disadvantaged are less likely, by their attendance at school, to benefit from a public education service designed to ameliorate and compensate for those very conditions.

Truancy and Childrens' Hearings.

The link between truancy and crime as measured by panel attendance is considered under various headings. There are significant ($p < 0.05$) differences between those who attend a panel and those who don't in terms of attendance in S1 to S4. In addition the children who attend a

Childrens' Panel are significantly different from the others in the areas of Poverty and Intelligence. 56% of 'panel children' took free meals and only 19% were above average intelligence. Poverty, yet again emerges as the most highly correlated variable for those children who attend a Childrens' Panel. A group, moreover, which is significantly poorer in attendance in 4 out of 5 years.

'0' Grade Success

The final specific area examined prior to the Regression studies in Part 1 was that of '0' grade success or lack of it. Not surprisingly cleverer children in P7 tend to be the same cleverer children in S4 in terms of '0' grade success. This is perhaps a validation of the P7 instruments used to measure reading and intelligence.

Coming from a single parent family does not seem to damage chances of '0' grade success in that there is no significant ($p < 0.05$) difference between this group and the rest in terms of it.

Children obtaining one or more '0' grades do seem to be better off materially than those gaining no '0' grade. This is surprising in an area where differences in material prosperity were thought to be small as a large proportion of the cohort live in an area of priority treatment because of high unemployment and poverty.

Using 'O' grade success as another measure of ability the difference between those gaining one or more 'O' grades and the rest in terms of attendance was significant and progressively more so from S1 through to S4.

The Primary School of Origin

Perhaps the most interesting outcome of Part 1 of this study has been the suggested influence on later attendance of the primary school of origin. A Oneway Analysis of variance of attendance at the feeder primary schools suggested that there were significant differences worth further examination. Feeder primaries were rank ordered in terms of the percentage attendance of their contribution to the cohort for each year from P7 to S4. Although not significant ($p < 0.05$) throughout, the rank order is largely maintained and suggests a direction for further research.

The dropout rate or rate of attrition was calculated for each primary school from P7 to S4 and in rank order was similar to the percentage attendance. This suggests that there is an effect in the primary school which influences attendance and staying power in the secondary stages. It is a result which would need to be repeated on a larger scale elsewhere to exclude the possibility that it is an artefact.

I.Q. and school roll were both examined as possible causal factors of this 'primary school' effect. Neither of these variables appear to offer an explanation for this primary school 'effect' and although the finding would need to be replicated on a large scale, it seems to be a result of major importance. If some primary schools can equip their children to cope with later educational experience better than others, then, it would be crucial to locate the 'good' primary schools and find out what it is they are doing.

PREDICTION

Although the Primary schools gave promise of being good predictors of children at risk and worthy of a separate study of their own the main thrust of Part 1 concerned itself with attempts to predict children at risk from the P7 variables.

In Chapter 5 the main task of Part 1 of the study is described viz: prediction of truancy behaviour using the P7 variables.

This was attempted on several levels but the purpose of the exercise was to go further than labelling and to assess how usefully the labels fitted. Useful in this case is defined as how well the labels can tell 'good' attenders from 'bad'. Good and bad are defined at each stage.

Initially a simple head count was carried out which because of the longitudinal nature of the attendance data allowed individuals to be traced from year to year. This method although rather crude yielded the information that in terms of proportions at least, 30% to 40% of those who were below average in attendance in P7 were subsequently below average from S1 to S4. What was not followed up was whether it was the same people each year who made up the 30-40%. This may not be of crucial interest given the later direction of the investigation.

Multiple regression analysis

Multiple Regression Analysis was the main tool used to predict children 'at risk' and it was towards this end that all prior topics were intended to lead.

When the present study was conceived in 1979 M.J. Eaton had already published a study similar in nature (see chapter 2 and chapter 5). He had nurtured the hope that there should be research into the younger age group (P6/7) as he considered it, "...fundamental to any programme of early identification and possible prevention of persistent absenteeism."

Although Eaton's work had not been considered prior to the start of this study his comment indicates that the hope of prediction was not a concern unique to this study.

The P7 data were split into different categories as described in Chapter 5. and category by category fed into the M.R.A. The problems encountered with the different options available to handle missing data are discussed in Chapter 5.

The first option is that which ignores missing data statements and feeds all cases into the equation whether they possess data on every variable or not. By this method the maximum amount of variance accounted for by the independent P7 variables is 36.0% in S2. The amount of variance accounted for rises from P7 to S2 and falls to S4.

The 'best' variables were extracted from this attempt and fed in to M.R.A alone and although there was a slight rise in the variance accounted for the vast majority of variance could be accounted for by Type 2 variables alone. It seems that prediction by this method is best attempted with ECON and MAPANUM, the measures of social disadvantage.

To include all cases whether they carry data or not is clearly undesirable. All other methods do much worse, however, in terms of amount of variance accounted for. Perhaps the most rational method of dealing with the problem of missing data while preserving case numbers is to use the method of Mean Substitution described in Chapter 5. This, although it cannot yield more than 11.2% of 'explained' variance, does reinforce the importance of ECON as well as introducing TPERS as a new variable of 'high' explanatory power. This is not, of course, a surprise given the earlier correlations it had with attendance.

Constructed variables whether from implicit theory or Factor Analysis posed problems of collapsing case numbers but at the end were unable to add at all to variance accounted for. In retrospect there is probably only a finite amount of variance capable of being accounted for by a given set of variables and rearranging them in the manner referred to in Chapter 5 can make no difference to that.

Data-Generated Definitions of Truancy.

As a final stage of the analysis carried out in Part 1 of the study an attempt was made to examine a data-generated definition of truancy.

A comparison was made between those in each year who were above and those who were below average in attendance in terms of the extent to which their attendances could be predicted with MRA. Instead of trying to predict predetermined categories of children at risk might there be in the data predetermined categories of attendance which were 'riskier' and/or more predictable than others?

Accordingly M.R.A was carried out on above and below average attending groups for each year. Variation in attendance among good attenders are more predictable than variation in attendance among poorer ones. Using the watershed of above and below average attendance is no more useful a definer than others in the literature.

CONCLUSION.

The study was described in terms of what would be done and how it would be done (i.e. measures and measuring instruments). The study would be in two parts reflecting what is seen here as the history of truancy research itself. The first part was concerned with issues in and around the child and was psychometric, sociological and statistical in nature. Its major thrust was an attempt to predict children at risk of truancy in their secondary school careers.

There is some support in this study for the earlier literature in that there are features in and around children at school which are more characteristic of the truant than the non truant. It is however argued here that such labelling is a kind of pseudoknowledge if these labels are poor discriminators. Truants may be dull, poor, or whatever but so are non truants.

The traditional labels used to describe truants are, in this cohort confined to poverty, membership of a single parent family, and the P7 teacher's assessment of personality.

The point is made that labelling is a low level activity epistemologically if the label does not also categorise with some measure of exclusiveness.

At best, 35% of the variance in attendance at school is predictable or accounted for by the kind of data collected in P7 for this study.

Attrition and low case numbers can cause problems for M.R.A. in that removal of cases because of missing data causes a large reduction in predictability. There is probably a ceiling for the amount of variance explicable by these sorts of variables of around 35% although that ceiling may be exceeded using Primary School of origin as the case selector for the purposes of prediction.

Prospect: Teachers and pupils.

Latterly research in the area which includes truancy has begun to focus on school factors. This shift of attention from the rejecting pupil to that which the pupil rejects did cause a measure of establishment paranoia (Power 1976). However it seems to be the area in which more fruitful returns might be expected in future. It is certainly the area over which professional educators politicians and administrators have, potentially, most control. It therefore must be likely that knowledge gained in this area will have a high degree of applicability.

Aspects of the school will be addressed in Part 2 of this study. The attitudes of teachers towards pupils and truancy will be examined first and finally the attitudes of the pupils themselves.

However the findings of Part 1 will be returned to along with those of Part 2 in Chapter 9 where an overall consideration of the implications of this study is provided.

PART 2

CHAPTER 7 WHAT THE TEACHERS THINK.

THE INFLUENCE OF THE SCHOOL

Discussion to this point has been concerned with fairly traditional thinking about school truancy. What is truancy behaviour? What kind of people exhibit it? Is it possible to predict truancy behaviour from the kind of people truants are said to be? These lines of enquiry, with the possible exception of the last, shadow the history of truancy research since the beginning of the century and their limitations have been discussed in earlier chapters.

School absence is not completely accounted for by just poverty or dullness or any of the other P7 variables either together or in some combination. Such complex behaviour as truancy must as far as possible be examined in the light of the totality of its social context. Such a context will include not only factors 'in' the child or factors 'in' the child's family and home but, unsurprisingly, it must include factors in the very institutions which truants reject.

A discussion of the literature underpinning what shall be described here has been supplied towards the end of Chapter 2. It will be recalled that earlier work tended to see the school as a black box with inputs in the form of pupil intelligence, social class and so on. Outcomes were largely measured in terms of examination passes or

university entrance figures. The process of schooling in between was largely ignored or thought to be ineluctable.

Currently there is a school effectiveness 'movement' which is examining anew the whole question of school processes, institutional variables, management styles, curricula, learning outcomes as well as consumer satisfaction. One measure of such satisfaction is, of course, truancy.

Given this 'state of the art', this research sought to draw testable conclusions from the proposition that different styles of school have different pupil outcomes. Unsurprisingly the pupil outcome chosen was that of school attendance. The testable conclusion drawn from the proposition was that a 'good' school in terms of pupil attendance would, if the research referred to above has substance, exhibit measurable differences in terms of staff attitudes. The research seeks an answer to the question 'Do good outcomes have measurable antecedents in the school system?'

It is clear (Rutter 1979, Cuttance 1985, Reynolds 1985) that one feature of the 'good' school is that of staff cohesion and commitment to the school, its policies and its pupils. It is hypothesised that given such a state of affairs in the staff it would be reasonable to suggest that they might be more child centred than their, perhaps, less committed colleagues in other schools. The idea of child centredness and its converse has been discussed in chapter 2 and previously (Gerrard 1978), when it was found that, when attitudes of teachers are assessed using repertory grid techniques (Kelly 1955, Bannister and Mair 1968, Ryle 1975), child centred teachers are more cognitively

'simple' than traditional or subject centred teachers. Cognitive simplicity and complexity, as used in this study, refer to those features in a Rep grid. A cognitively 'simple' grid is one in which there is a relative connectedness between constructs or between elements. There is despite a plethora of elements or constructs perhaps only one element or construct in terms of actual use. Cognitive complexity, then, is the opposite i.e. constructs or elements are relatively discrete in their use. It should be borne in mind that Bannister (Bannister and Mair, 1968) has discussed the possibility that cognitive complexity may more accurately be viewed as cognitive confusion. This important topic of cognitive complexity will be discussed in much greater detail later in this chapter.

TWO SCHOOLS

In an attempt to answer the above question another large Glasgow secondary school was chosen as similar to the original school studied in Part 1 in as many physical respects as possible.

The two schools chosen were:

- a. Similar in catchment area.
- b. Housed in buildings of similar age and design.
- c. Possessed of a similar staff pupil ratio.
- d. Administered by the same authority and with the same access to resources.

More detailed information concerning the two schools is given in the table below.

Comparison of social and scholastic factors in two schools.

For 1986.	School A.	School B.
1 'O' grade+	35.5%	38.5%
5 'O' grades+	15.2%	15.6%
3 'H' grade+	3.6%	2.6%
Free meals	34.2%	44.7%
Clothing grant	38.3%	45.6%
Large H'holds	19.6%	17.2%
Single parents	26.6%	25.9%
Overcrowding	50.6%	53.9%
Social class 4,5	38.2%	45.0%
Roll	963	809

From the above table it is clear that the two schools differ in some respects, nevertheless, it is contended here that they are as alike as could be achieved in the practical situation.

The schools did differ, however, in attendance, chosen here as the outcome variable, which, it is hypothesised, would be linked with attitude differences between the staffs of the two schools. Since it would have been physically impossible to take grids from all the staff in the two schools a sample had to be chosen. Such sampling procedures are, in practice, imperfect and clearly only teachers willing to take part were used. The AHT with Guidance responsibility in each school was asked to select a sample which would be representative of the school staff as a whole in terms of promotion, experience, sex and subject. The writer had no control over the choosing and therefore little is known about the sample and whether it was or was not representative. It is felt however that this sort of weakness, if it is a weakness, is typical of research carried on outside the laboratory where the status of the researcher may often be lower than those persons who are his subjects. It is, however, the very stuff of real world

social/psychological enquiry and it is better to embrace this fact and, if possible, use it than to lament the truth of it.

Absence in the two schools

The figures below are the results of a Sign Test carried out on Local Authority supplied figures for percentage attendances at each school termly for the years 1981 to 1985, the period of this study.

Hull (1981) describes the rationale of the sign test as follows. "The signs of differences between the paired observations are analysed. If the two variables share a common distribution, the number of positive differences and negative differences should be roughly the same...The positive differences are counted. Zero differences are ignored. From these counts a statistic Z is computed. Under the null hypothesis for large samples, Z is approximately normally distributed with mean 0 and variance 1. If the number of non zero differences is less than 26, the exact significance level is computed from the binomial distribution."

't' is felt to be an unsuitable statistic here because of the unusual presentation of the data. The percentage attendance for each term for each school has to be compared. This is three terms a year for five years i.e. 15 cases; too condensed a presentation of the data for 't' to necessarily reflect any differences between the schools.

Significance of difference in attendance between schools over 5 years.

Variable (Termly %ATT)	N (of terms)	Mean (%ATT)	Minimum	Maximum
School A	15	83.333	80.100	87.600
School B	15	76.007	65.900	83.700

Sign Test p (2-tailed) = 0.001

It is clear from the above figures that School A has a consistently better attendance record than School B and the difference is highly significant. On the basis of this one difference (i.e.attendance) enough confidence was felt to procede to test the hypothesis that there should exist in the 'bloodstream of staff consciousness' a difference of attitude towards pupils. Further, this difference would be that the staff of school A would be more cognitively simple as measured by Repertory grid than the staff of school B.

For clarity the hypothesis is stated again..'When two schools have significantly different rates of attendance and are yet similar enough in other gross aspects to be comparable, there will be significant differences in staff attitudes.'

Before going into the detailed aspects of the research it is appropriate to discuss two preliminary issues in order to make clear what follows.

Role Construct Repertory Grid Techniques(Rep' Grids).

The specific grids and their administration used in this study are described in chapter 3.

Smith (1981) gives a good discussion of non clinical usage of Repertory Grids. A grid has three components; elements, constructs and a device for linking one with the other. Elements should be homogenous, that is, from the same category as each other. Thus, teacher, pupil, head teacher and parent are homogenous but the addition of 'favourite meal' would spoil homogeneity. Elements, secondly must be representative of the area under study. Thus if 'football' were excluded from a study of attitudes to team games in the West of Scotland there would be an obvious gap in representative coverage.

Elements can be supplied, elicited from role titles, elicited from classes (name five breeds of dog) or, lastly, elicited from discussion with the subject.

When discussing constructs Smith (1981) has the following to say.

"Strictly, there need be no difference between the nature of the constructs and the elements employed in a grid. This stems from wider definitions of what constitutes a grid, for example, Bannister and Mair (1969) define one as:

'Any form of sorting task which allows for the assessment of relationships which yield these primary data in grid form.'

However, it makes the design and interpretation of grids somewhat easier if a distinction is made, and one such distinction is to think of elements as the objects of peoples thoughts and constructs as the qualities that people attribute to these objects."

It is in the 'connecting' of elements to constructs that different kinds of grids emerge, generally speaking. The usual device to make the connection is some kind of rating scale which can be of the dichotomous 'blank' or 'tick' sort pioneered by Kelly in his original grid. At the other end of the spectrum lie the rating scales proper which can be designed to make distinctions as subtle as required or the subject will tolerate. Elements can be ranked against each construct but while this method allows (indeed forces) fine distinctions between elements it tends to ignore the usually bipolar nature of construing. Smith (1981) claims that 70% of published studies use proper rating scales.

Since Kelly's (1955) introduction of the Rep' grid technique there have been many adaptations and modifications. Bannister and Mair (1968) describe six major types. The particular variety used in this research is the rating form of which Bannister and Mair have the following to say:

"This variation has been less used to date than either the split half or the rank order forms...the rating form on logical grounds at least would seem to offer a number of advantages. The subject is allowed much of the freedom of Kelly's original method, in that he can nominate any number of elements he chooses for either pole of any construct. He is given the opportunity of making distinctions between people who in the original methods, might receive only a uniform tick or an equally undifferentiated blank...Furthermore the subject may give the same rating to elements which might be artificially separated by the ranking method where generally no ties are allowed...These features make it possible for a subject to place all the elements at one pole of a construct and yet differentiate between them."

If Smith is correct above in his 70% claim then Bannister and Mair's recommendation of the rating scale appears to have worked.

Grid analysis.

When all the data had been collected a method of analysis had to be chosen. One advantage of the rating form is that it lends itself to factor analytic techniques of analysis and over the past nearly twenty years since 1969 the series of programmes written by Slater (1969) have been most commonly used for this purpose. These are essentially principal component analyses and are available through a grid analysis service run by Slater under the auspices of the Medical Research Council, or locally at the University of Edinburgh.

Since this study had access to SPSS it was decided to run the data on the SPSS programme FACTOR which incorporates Principal Components Analysis.

This was found to be a useful method of grid analysis in earlier work by this author (Gerrard 1978). An EQUIMAX rotation was chosen for reasons described by Nie et al(1975) as it does not favour either the columns or the rows of the Factor Matrix. The S.P.S.S. manual has the following to say.

"In contrast to QUARTIMAX, which centres on simplifying the rows of a factor matrix, the VARIMAX criterion centres on simplifying the columns of a factor matrix... EQUIMAX follows the general reasoning of the QUARTIMAX and VARIMAX criteria. It can be thought of as a compromise solution of the preceding two. Instead of concentrating either on simplification of the rows or on simplification of the columns, it tries to accomplish some of each; hence the name EQUIMAX."

Thus each grid was analysed using the SPSS programme FACTOR with an EQUIMAX rotation to print out a correlation matrix, a list of loadings for each variable on each factor and a graphical display of the variable relationships. An example will be provided in full to illustrate the process.

Two different analyses were carried out for each grid:

1. Grid ratings vertically down the grid representing construct scores.
2. Grid ratings horizontally across the grid representing element scores.

Each subject had two displays of his/her analysed data. One display of construct relationships and one display of element relationships. The emphasis in this chapter is placed, however, on construct relationships as it is the complexity of teacher construing that is of interest whereas in Chapter 8 interest is more focussed on element relationships.

Interpretation of the results of grid analysis.

For each grid the great mass of variance is accounted for by the first two factors in almost every case. This two factor phenomenon is usual. Ryle (1975) writes as follows... "In most grids the first principal component accounts for between 30% and 50% of the total variance, the second for 10% to 25% and subsequent components for diminishing proportions. While a component accounting for a relatively small

percentage of total variance may be of psychological interest, for most practical purposes, the first two or three components provide an adequately complete picture of the subjects system."

Although elements and constructs are presented separately it should be remembered that they are, psychologically, inexorably intertwined. The dispersion of constructs in psychological space is as a direct result of their being used to construe the elements of the grid and conversely the dispersion of elements in psychological space (as portrayed by the factor model used here) is a direct result of their construction by each subject and his constructs. Slater's (1969) INGRID programme seems to show elements and constructs together (Ryle 1975) and it is unnecessarily complex and difficult to interpret to have so much information on the one display. It seems that nothing is lost and a measure of clarity gained by examining elements and constructs separately and such a policy has been followed in this research.

Much of the work using Rep' grids has been carried out in a clinical setting (Poole 1976, Phillips 1975, McPherson et al 1973, Button 1985) and grids have been interpreted from particular theoretical orientations. Ryle (1975), for example, takes a Psychoanalytic view of his grids and attempts to interpret them from that standpoint.

It seems that there is no one method for the interpretation of grids. Ryle (1975) has the following to say: "For example in a study of couples clinical interest might focus on the construct 'sexually attracted to me', while in a study of students failing in academic work, the construct 'likely to succeed academically' might be of

particular interest. The sense to be made of the construct correlations is largely common sense."

COGNITIVE COMPLEXITY.

The theoretical measure used to test the hypothesis discussed at the beginning of this chapter is that of 'cognitive complexity'. Crockett (1965) writes; "A cognitive system will be considered relatively complex in structure when it contains a relatively large number of elements and the elements are integrated hierarchically by relatively extensive bonds of relationship." The use of the term 'relative' here is a caveat against thinking of complexity in any absolute sense but only in terms of one system compared to another. The use of the term 'element' should not be confused with the technical usage which is employed in Kellyian theory. In fact the very opposite is meant i.e. in Crockett's usage element means construct and to complicate matters further all elements may considered as mathematically and functionally equivalent to constructs anyway and vice versa. A Rep' grid is a map and, as is the case with other maps, the map is not the ground. In some types of maps it might be important to distinguish between deciduous trees and conifers but in another map of the same ground used for a different purpose both could be trees. Crockett's use of the word 'integrated' is misleading too, as for all purposes here integrated means that constructs are used in the same way and are highly correlated and therefore represent simplicity in the system.

Construct complexity.

The number of constructs actually used by the subject is directly related to cognitive complexity. Constructs which are highly correlated will be assumed to serve a similar function and in terms of cognitive complexity be treated as the same construct. Thus subjects with many constructs highly correlated with each other will be cognitively simple.

Bieri (1966) developed a measure of cognitive complexity (Bieri's Cb) in which ratings are compared for all possible pairs of constructs. A score of 1 is given for every exact agreement of ratings on any one element. The total score is inversely related to the cognitive complexity of the subject. Honess (1976) defines Cognitive complexity as follows, "Cognitive complexity may be defined as the tendency to construe social behaviour in a multidimensional way, such that a more cognitively complex individual has available a more versatile system for perceiving the behaviour of others than does a less cognitively complex person." An example of the calculation of Bieri's Cb is illustrated below:

Construct/ Contrast.		Elements				
		A	B	C	D	E
X	X'	5	2	6	7	1
Y	Y'	3	2	3	4	3
Z	Z'	5	6	2	2	6
P	P'	1	7	2	7	1
Q	Q'	4	4	6	4	3

In the above simplified example of a completed grid all possible pairwise combinations of construct ratings are counted for cases of complete agreement. Whenever a complete agreement occurs a score of '1' is given and the final Cb score is the sum of all the 'ones' obtained. Thus construct 1 (row 1) is compared with all other constructs (rows) and whenever its rating is identical with the same rating of any other construct a score of 1 is allocated. This process is repeated for all constructs compared to all others and the total score is Bieri's Cb. This is illustrated below:

Constructs	Number of Agreements
X with Y	1
X with Z	1
X with P	2
X with Q	1
Y with Z	0
Y with P	0
Y with Q	2
Z with P	1
Z with Q	0
P with Q	0

Bieri's Cb =	8

Bieri's approach is not the only method of measuring cognitive complexity. Bonarius (1965) lists the following methods for estimating cognitive complexity:

1. The number of factors extracted from the factor analysis of the grid.
2. The 'explanatory power' of the first factor. The amount of variance which it accounts for.
3. Bieri's measure of complexity (Cb).
4. The response variability as expressed in overlapping verbal labels. e.g. 'good hearted' and 'kind' may overlap in usage.
5. In the Rep grid each construct is compared with all the others. The measure is the sum of all the measures between the construct patterns.
6. The subject produces as many constructs as possible on each triad. The measure is the total number of verbally different constructs.
7. The number of cognitive dimensions assessed by Coombs' unfolding technique.
8. The symbols H and R from information theory. H is the dispersion of objects over the set of distinctions yielded by the category system. R is the index of relative entropy.

Of the above methods 1, 2 and 3 will be used and a modification of 5 which will be described later. It is not, however, sufficient to consider cognitive complexity only in terms of the number of constructs used since this is artificially decided beforehand by the design of the grid (in a rating grid.)

Distance.

The concept of distance is applied by Crockett (1965) to construct relationships (cf Ryle 1975) and although Bonarius (1981) describes some quite complex trigonometrical methods of measuring distance a simpler modification of these ideas will be used here.

A modified measure of hierarchical integration could be obtained by calculating distance for a subject and combining this with Bieri's Cb and thus producing a composite score of cognitive complexity. This procedure involves the methodological gaucheness of having to add correlation coefficients to obtain the measure of average distance for each subject. This difficulty is usually overcome by squaring the coefficients and multiplying them by 100 to turn them into percentages which is in fact turning correlation coefficients into variance figures. Such an average distance figure should therefore be equivalent to averaging the variance accounted for by the first two factors on the SPSS printout.

In general each subject's construct relationships and element relationships will be accompanied by an estimate of cognitive complexity consisting of:

1. The number of factors (Eigenvalue > 1) extracted during Factor Analysis. The fewer factors the more cognitively simple.
2. The amount of variance accounted for by the first factor. The more variance accounted for the more cognitively simple.
3. The amount of variance accounted for by the first two factors. The more variance accounted for the more cognitively simple.
4. Bieri's measure of cognitive complexity. The higher the value the more cognitively simple.
5. Ct. A new, more thorough, version of Bieri's Cb.

A NEW MEASURE OF COGNITIVE COMPLEXITY (CT)

Bieri's measure of cognitive complexity C_b , as has been explained, argues that constructs which are allotted the same score on a rating grid are functionally the same and such sameness is a measure of cognitive simplicity. Thus numerically high values of C_b indicate a low level of cognitive complexity.

This line of reasoning leads to the idea, developed in this research that a better measure of cognitive complexity could be developed if gradations of similarity between constructs were measured. Thus, it is argued, that constructs which differ in their ratings by 1 are more alike functionally than constructs which differ in their ratings by more than 1. In general the more the ratings of two constructs differ the more functionally distinct they are and the more cognitively complex the subject is with respect to these constructs. It can be seen, therefore, that if all gradations of difference between constructs are measured and scored (the bigger the difference the smaller the score and vice versa). This describes the ideal method of measuring cognitive complexity with the Bieri model giving a measure of total complexity in a grid (C_t).

A compromise method was adopted for this research which involves counting not only complete agreements between ratings on the grid (compare with the example of Bieri's C_b above) but an analysis of levels of agreement to + or - 2. Complete agreements are scored 3. Differences of 1 are scored 2. Differences of 2 or more are scored 1.

Scores are added to provide the measure of cognitive complexity referred to here as Ct.

A computer programme to carry out this laborious counting process was written for the purpose by Mr Robert McInnes of the Department of Computing at Jordanhill College of Education. As will be seen later this method of measuring Cognitive Complexity proved to be highly sensitive and is preferred to Bieri's rather cruder measure.

Analysis of the grids

In general grid analyses are of two sorts described by Rathod (1981)

" Now, if we consider a Rep' grid consisting of m constructs and n elements, the grid problem can be defined as: (1) that of assigning the n elements to each of the m constructs in other words, that of gathering the Rep' grid data, and (2) that of analysis and interpretation of the Rep' grid data...The methods for the analysis of grid data can roughly be divided into what may be called the simpler correlational methods and the much more complex, multivariate methods."

Rathod goes on to describe correlational methods as suitable for examining interrelationships between the constructs or the elements. Multivariate methods are used to examine the underlying structure of these interrelationships.

The analysis of the grids in this study follows the structure described by Rathod and one complete example will be provided to illustrate the process. All other results will be presented in summary form.

Thus the data is analysed in simple descriptive and correlational terms (correlational) and Factor analysis allows the second sort (multivariate) to be carried out.
Example. Correlational Analysis of Constructs.

CONSTRUCT 1. SITUATIONS IN WHICH YOU TRY TO BE A FRIEND AS WELL AS A TEACHER.	V	SITUATIONS YOU HANDLE AS A PROFESSIONAL.
CONSTRUCT 2. I HAVE A PERSONAL RESPONSE TO THEM.	V	I MAKE OBJECTIVE JUDGEMENTS.
CONSTRUCT 3. IT IS A SIGNAL THAT I MUST CHANGE.	V	I PERSONALLY DO NOT HAVE TO CHANGE.
CONSTRUCT 4. FEEL MORE RELAXED WITH THEM.	V	FEEL LESS RELAXED WITH THEM.
CONSTRUCT 5. THE RELATIONSHIP INVOLVES INFORMAL GUIDANCE.	V	THE RELATIONSHIP INVOLVES FORMAL GUIDANCE.
CONSTRUCT 6. I AM MORE PERSONALLY INVOLVED.	V	I AM NOT SO PERSONALLY INVOLVED.
CONSTRUCT 7. ISSUES INVOLVING SCHOOL.	V	ISSUES INVOLVING HUMAN JUDGEMENT.
CONSTRUCT 8. THE RELATIONSHIP INVOLVES MORE THAN PROFESSIONAL CONCERN.	V	I AM CONCERNED PROFESSIONALLY.

Constructs involving ideas of personal relationships of a caring sort occur in seven out of eight constructs. Construct 7 is seen in the table of correlation coefficients below to correlate negatively with all the rest. Construct 7 is 'issues involving school' and at this level of 'eyeball' analysis could be the 'traditional' end of a 'progressive' to 'traditional' spectrum. Most of the other seven

constructs appear to correlate with each other quite highly. It could be argued that this teacher construes in a progressive or child centred way.

Correlation Coefficients.

	C1	C2	C3	C4	C5	C6	C7	C8
C1	1.00	0.75	0.70	0.48	0.80	0.73	-0.62	0.79
C2	0.75	1.00	0.38	0.90	0.75	0.72	-0.79	0.86
C3	0.70	0.38	1.00	0.21	0.46	0.64	-0.13	0.67
C4	0.48	0.90	0.21	1.00	0.60	0.55	-0.71	0.69
C5	0.80	0.75	0.46	0.60	1.00	0.71	-0.61	0.66
C6	0.73	0.72	0.64	0.55	0.71	1.00	-0.64	0.75
C7	-0.62	-0.79	-0.13	-0.71	-0.61	-0.64	1.00	-0.64
C8	0.79	0.86	0.67	0.69	0.66	0.75	-0.64	1.00

Multivariate analysis.

Percentage of variance accounted for by factors with Eigenvalue greater than 1, before rotation, is 85.6%.

After Rotation.

Factor	Eigenvalue	Pct of Var
1	5.39731	83.9
2	1.03715	16.1

Equimax Rotated Factor Matrix

	FACTOR 1	FACTOR 2
CONST1	0.54803	0.71670
CONST2	0.93732	0.34773
CONST3	0.03308	0.97542
CONST4	0.84740	0.15009
CONST5	0.63772	0.50148
CONST6	0.57684	0.62504
CONST7	-0.83144	-0.16657
CONST8	0.66098	0.62475

The underlying factor structure revealed above can be analysed by allocating a construct to a factor if its loading is in excess of 0.5. This figure is chosen arbitrarily in a sense but was found to usefully reflect meaning in a previous study (Gerrard 1978). In case of a clash

the higher loading decides.(eg. constructs 1, 5, 6 and 8.) Some 'sense' is attributed to the resulting factors and names are attached where possible. This argument will be gone through in full for teacher 1 as an illustration but with the other cases the resulting 'factors' will be presented for consideration by name only.

Factor 1 is loaded as described by C2, C4, C5, C8 and negatively by C7. The key words seem to be 'personal' and 'relationship' in Cs 2, 4, 5 and 8. Construct 7 is to do with the school as opposed to the people in the school and Factor 1 could therefore be characterised as below.

F1.Personal Vs Institutional.

Factor 2 is loaded by C1, C3 and C6. The key issue here is 'self'. The factor could therefore be characterised as below:

F2.Self criticism.

The Complexity Indices are provided for each teacher as a method of summarising concisely those aspects of the grid which will be used later in the chapter to make comparisons between the two groups.

Complexity Indices.

-
- 1.Number of factors=2
 - 2.% Variance on first factor=83.9%(After rotation)
 - 3.% Variance on first two factors=100%
 - 4.Bieri's measure of complexity=65
 - 5.Ct=602

RESULTS: CONSTRUCTS AND FACTORS.

The table below summarises the factor structures of the grids for each school.

School A. Factors

Teacher 1.

F1.Personal Vs Institutional.

F2.Self criticism.

Teacher 2.

F1.Experiencing problems.

F2.Dependent/Responsible for.

F3.Flawed.

Teacher 3.

F1.Personal responsibility.

F2.Personal relationships.

Teacher 4.

F1.Fits in Vs Doesn't fit in.

F2.Personal relationships.

Teacher 5.

F1.Personal/feeling issues.

F2.Rules of the institution.

Teacher 6.

F1.Personally challenging.

F2.Conforming.

Teacher 7.

F1.Trustworthy/Successful.

F2.Like me.

F3.Unhappy.

Teacher 8.

F1.Trustworthy/successful.

F2.Personal/emotional.

F3.Factors outwith my control.

Teacher 9.

F1.Trustworthy/hardworking.

F2.Distress caused by the environment.

Teacher 10.

F1.Problems.I am responsible for(their solution.)

F2.Personal/dependent.

F3.Personal/sympathetic.

School B. Factors

Teacher 1.

F1.Conforming/I approve.
F2.Contented.

Teacher 2.

F1.Good pupil.
F2.Nice.

Teacher 3.

F1.Good pupil.
F2.Conforming pupil.

Teacher 4.

F1.Good pupil.
F2.likeable.
F3.External problems
(May use school to overcome
them.)

Teacher 5.

F1.Good pupil.
F2.Feel sorry for.

Teacher 6.

F1.Good pupil.
F2.Feel sorry/
sympathy for
F3.Achievement.

Teacher 7.

F1.Feel good about Vs
feel sorry for.

Teacher 8.

F1.Good pupil.
F2.Personal feeling.

Teacher 9.

F1 Successful Vs Unsuccessful.

Teacher 10.

F1.No problems Vs Got problems.

It will always be open to dispute as to what exactly is to be drawn from the sort of data shown above but it is proposed here that School B is much more focussed on standards of presentation and behaviour as measured by external rule. Six out of the ten teachers in School B use

the idea of the 'good pupil' as a major plank of their construing. No teacher in School A does so. Teachers in School A seem much more intangible in the semantics of their construing and appear to wrestle with the problem/ personal/ affective dimension of those in their school world to a greater extent than the teachers in School B.

It is therefore concluded here, albeit with the caveats already mentioned, that teachers in school A are more child centred and progressive than their colleagues in school B on the evidence of construct use as presented here.

It will be recalled that the differences between the two schools were based on the criterion of attendance. Over the five years from 1981 to 1985 the differences in attendance between school A and school B were statistically significant and in favour of School A. This difference may be seen in the quality of response in the constructs of the grids but if measurable differences can be obtained in terms of 'Complexity' then anxiety will be reduced concerning the rather qualitative nature of grid analysis on the basis of discussion of constructs alone.

Differences between schools seem not to be noteworthy. Bieri's measure is a blunt instrument and required refinement if it was to be more valid. Bieri's Cb counts only absolute agreement between constructs and between elements and ignores near misses. As referred to earlier a programme was written by the Computing Department at the College to refine the counting process. This is referred to as Ct and there is a small but positive correlation between Cb and Ct as would be expected if they are measuring the same thing.

Summary of grid complexity.

School A. Construct Complexity.

Teacher	N of Factors	Factor 1	Factor 1 + 2	Cb	Ct
1	2	83.9%	100%	65	602
2	3	59.6%	88.4%	72	605
3	2	67.7%	100%	51	624
4	2	86.6%	100%	50	583
5	2	87.8%	100%	112	577
6	2	75.5%	100%	58	565
7	3	50.1%	83.5%	51	578
8	3	55.5%	86.6%	55	662
9	2	83.4%	100%	48	588
10	3	54.8%	85.2%	68	637

School B. Construct Complexity.

Teacher	N of Factors	Factor 1	Factor 1 + 2	Cb	Ct
1	2	72.4%	100%	66	646
2	2	55.8%	100%	85	544
3	2	89.1%	100%	56	521
4	3	56.9%	87.6%	53	549
5	2	79.3%	100%	108	597
6	3	59.5%	88.5%	61	583
7	1	100%	100%	52	524
8	2	77.9%	100%	63	552
9	1	100%	100%	56	518
10	1	100%	100%	53	541

The grids of the two sets of teachers were compared on the new complexity variable (Ct) for constructs, using the Mann-Whitney U Test. Results are displayed below.

Mann-Whitney U Test.School A(Ct) versus School B(Ct).

School A	School B
Mean Rank	Mean Rank
13.75	7.25
U	2-tailed P
17.5	0.0140

One tailed p = 0.007 as direction predicted is confirmed. School A staff are more cognitively simple than staff in school B.

It is argued that there is a difference between the schools which is located in the complexity of construing of the teachers. Earlier research (Gerrard 1978) indicated that 'progressive' teachers viewed

the persons in their teaching world in a more cognitively simple way than 'traditional' teachers. Those teachers were primary teachers and students. This result is repeated now with secondary teachers.

It is always difficult to control for all possible contaminating factors in 'real world' research of this sort and obviously the two schools may not have been as alike as it has been argued they are. Nevertheless it is remarkable and gratifying to find evidence that indicates that such a stable outcome as school attendance is sensitive to teacher attitude. It is teacher attitude, surely, which is forged in teacher training and polished by in service courses and management philosophy on the job. It is peculiarly accessible to changes in management policy as evidenced by the abolition of corporal punishment in schools. Before a minority of teachers were said to be in favour of abolition. Now only a minority would seriously campaign for its return. The raising of the school leaving age in the early 1970's, too, provides a powerful example of how professional attitudes can be changed if there is a determined enough executive.

This finding clearly would require replication and refinement but it is a finding in which, nevertheless, enough confidence is felt to warrant the concluding remarks in chapter 9.

CHAPTER 8 PUPIL ATTITUDES TO PERSONS IN THEIR SCHOOL WORLD.

" Some truants blame their teachers for their truancy, but is unwise to accept truants' excuses at their face value. The limits of self deception are wide and it is easier to blame other people than it is to blame oneself."
(Tyerman M. 1968)

PUPIL ATTITUDES

It is clear from Chapter 2 that pupil attitudes to school have some bearing on their behaviour. Poor attenders harbour poor attitudes (Kavanagh and Carroll 1977) and vice versa.

In April 1984 the AHT Guidance in the secondary school under study was asked to supply two samples of pupils from S3, which was the point at which the cohort had arrived in their careers. One sample was to consist of about half a dozen children who in the view of the AHT were broadly sympathetic to the school. The other sample was to consist of about the same number who were of the opposite persuasion. Comment was made in the last chapter about the difficulty in research outside of the laboratory of taking samples which are representative. In the case of the samples of children in this chapter, although it may be impossible to ensure that they are representative, it is possible to describe them in terms of data previously gathered about them. Their

possible lack of representativeness is nevertheless a factor to which attention should be drawn at the outset.

With this lack of control over sampling in mind a comparison was carried out between the two groups of children to assess whether there was any objective evidence in the P7 background data for distinguishing between them other than the AHT's assessment of pro and anti schoolness. This of course is another way of looking at an individual teacher's way of viewing children and was some check on what kind of children he was choosing.

Five proschool and six antischool children were provided by the school. No significant difference in %ATT exists between the groups although the AHT doing the choosing may have used attendance as a criterion of choice in an informal way.

The 'pro' group is significantly more verbally proficient than the 'anti' group. This is also the case with verbal, perceptual and global intelligence and teachers estimates of literacy, numeracy and effort. There was however no difference between the groups in reading quotient, number of parents and economic level. This provides some clue to the process of choosing used consciously or otherwise by the teacher doing the choosing

DATA ANALYSIS. P7 DATA.

Attendance

Mann-Whitney U test of difference in attendance between the two group.

Pro-school.	Anti-school.
MEAN RANK	MEAN RANK
7.20	3.80
U	2-TAILED P
4.0	0.0758

There is no significant difference in %ATT between the groups although the AHT doing the choosing may have used attendance as a criterion of choice in a subjective way.

Less strictly if a one tailed criterion is permitted on the grounds that the anti group was predicted as having poorer attendance then $p=0.037$ is quite acceptably significant. Further comparisons between the two groups are provided below in summary form using a one tailed criterion.

Summary of differences between the two groups.

Variable	Significance (One-tailed)
Attendance	0.04
Verbal ability	0.01
Number ability	0.02
Perceptual ability	0.01
Global intelligence	0.02
Reading quotient	0.04
N of parents	0.40
Free meals	0.40
P7 Literacy	0.007
P7 Numeracy	0.007
P7 Effort	0.005

In the above table the social background variables of Number of Parents and Free Meals fail to reach significance. It is clear, then, that the AHT has distinguished a 'pro' from an 'anti' group largely on scholastic and attendance grounds (if a one tailed criterion is accepted). Moreover it is likely that he would find broad agreement with his judgements among the P7 school teachers who taught them four years previously. Interestingly he did not appear to use social criteria of poverty or broken home.

The above differences between the two groups are made on the basis of criteria which might be expected to appeal to or make sense to teachers and perhaps adults in general. It was important in this study, however, to add the final piece of the mosaic to the picture by seeking the views of the children themselves, by the use of Repertory Grids.

The administration of the grids was carried out with the help of colleagues and all meetings with subjects took place in school.

Detailed discussion of the Repertory Grid as a tool in this sort of enquiry was provided in the last chapter and will not be repeated here. The role titles below were given to subjects and elements generated from them. Constructs were elicited by presentation of the elements according to the scheme of triadic presentation shown to the right hand side of the table below:

Elements and Triads for Pupil Grids.

Elements.	Triads.
1. A PARENT.	1, 3, 6
2. A GOOD TEACHER.	8, 9, 10
3. A BAD TEACHER.	4, 2, 1
4. A PUPIL WHO LIKES SCHOOL.	5, 1, 9
5. A PUPIL WHO HATES SCHOOL.	7, 8, 10
6. A HAPPY DOGGER.	4, 5, 2
7. AN UNHAPPY DOGGER.	1, 8, 2
8. MYSELF.	5, 3, 10
9. AN ADULT I COULD TALK TO.	6, 7, 8
10. AN ADULT I COULD NOT TALK TO.	3, 4, 6

DATA ANALYSIS. REPERTORY GRIDS.

The presentation of the results of the Repertory grid analysis differs slightly from the scheme in the last chapter as less emphasis is given to the simple correlational part of the process and more to the Factor Analysis. More emphasis, too, is placed on Element relationships as they are of greater interest in terms of who the subject identifies with.

As in the previous chapter one complete analysis will be presented in detail as an illustration of the process which was carried out.

- CONSTRUCT 1.
Difficult to talk to. Vs Talk to them more.
- CONSTRUCT 2.
Good natured. Vs Bad natured.
- CONSTRUCT 3.
Makes you feel good. Vs Doesn't make you feel good.
- CONSTRUCT 4.
Help you. Vs Won't help you.
- CONSTRUCT 5.
Too cheeky. Vs Not cheeky.
- CONSTRUCT 6.
Like being with other people. Vs Doesn't like being with other people.
- CONSTRUCT 7.
Like work. Vs Hates work.
- CONSTRUCT 8.
Don't like children. Vs Like children.
- CONSTRUCT 9.
Hate being bossed. Vs Like working in school.
- CONSTRUCT 10.
Lazy. Vs Not lazy.

Example. Pro-school pupil. Constructs.

Correlation Coefficients.

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
C1	1.00	-0.73	-0.79	-0.81	0.60	-0.80	-0.37	0.00	0.44	-0.49
C2	-0.73	1.00	0.88	0.88	-0.49	0.87	0.30	-0.55	-0.25	0.53
C3	-0.79	0.88	1.00	0.76	-0.64	0.95	0.20	-0.33	-0.50	0.50
C4	-0.81	0.88	0.76	1.00	-0.59	0.87	0.46	-0.41	-0.33	0.53
C5	0.60	-0.49	-0.64	-0.59	1.00	-0.72	-0.63	0.30	0.50	-0.21
C6	-0.80	0.87	0.95	0.87	-0.72	1.00	0.36	-0.41	-0.50	0.54
C7	-0.37	0.30	0.20	0.46	-0.63	0.36	1.00	-0.44	-0.08	-0.33
C8	0.00	-0.55	-0.33	-0.41	0.30	-0.41	-0.44	1.00	-0.13	0.10
C9	0.44	-0.25	-0.50	-0.33	0.50	-0.50	-0.08	-0.13	1.00	-0.11
C10	-0.49	0.53	0.58	0.53	-0.21	0.54	-0.33	0.10	-0.11	1.00

In Factor analysis the percentage of variance accounted for by factors with Eigenvalue greater than 1 before rotation is 76.7%. After rotation is shown below.

After Rotation

FACTOR	EIGENVALUE	PCT OF VAR
1	5.56448	69.4
2	1.52556	19.0
3	0.93227	11.6

EQUIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3
CONST1	-0.56255	-0.69095	-0.09920
CONST2	0.76676	0.28974	0.54378
CONST3	0.75101	0.52043	0.25878
CONST4	0.62641	0.49447	0.44340
CONST5	-0.18684	-0.75994	-0.33255
CONST6	0.69253	0.59599	0.37499
CONST7	-0.30940	0.59802	0.65736
CONST8	-0.12496	0.10014	-0.90204
CONST9	-0.21067	-0.57662	0.12521
CONST10	0.81725	0.06621	-0.16661

FACTOR 1. Loaded with Constructs 2, 3, 4, 6 and 10. Constructs 3, 4 and 6 cluster together and are moderately loaded on Factor 2 as well. A cluster of 'cheerful gregariousness' perhaps. Constructs 2 and 10 load more exclusively on on Factor 1 and are not at all at odds with constructs 3, 6 and 4 but emphasise a sociability, certainly, but with more than a tinge of indifference to work.

FACTOR 2. This factor is loaded positively only by construct 7 but on its negative end lie constructs 1, 5 and 9 which suggest a factor of deviance with respect to school.

Complexity Indices.

1. Number of factors=3
2. % variance on factor 1=69.4%
3. % variance on factor 1+2=88.4%
4. Bieri's measure=69
5. Ct=777

Example. Pro-school pupil. Elements.

-
- ELEMENT 1.A PARENT.
 - ELEMENT 2.A GOOD TEACHER.
 - ELEMENT 3.A BAD TEACHER.
 - ELEMENT 4.A PUPIL WHO LIKES SCHOOL.
 - ELEMENT 5.A PUPIL WHO HATES SCHOOL.
 - ELEMENT 6.A HAPPY DOGGER.
 - ELEMENT 7.AN UNHAPPY DOGGER.
 - ELEMENT 8.MYSELF.
 - ELEMENT 9.AN ADULT I COULD TALK TO.
 - ELEMENT 10.AN ADULT I COULD NOT TALK TO.

Correlation Coefficients.

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
E1	1.00	0.45	-0.17	0.47	0.31	-0.45	-0.43	0.75	0.44	0.57
E2	0.45	1.00	0.65	-0.20	-0.03	0.32	0.37	0.33	-0.12	0.10
E3	-0.17	0.65	1.00	-0.64	-0.54	0.65	0.69	-0.34	-0.65	-0.10
E4	0.47	-0.20	-0.64	1.00	0.51	-0.66	-0.70	0.80	0.64	0.34
E5	0.31	-0.03	-0.54	0.51	1.00	-0.55	-0.61	0.63	0.77	0.49
E6	-0.45	0.32	0.65	-0.66	-0.55	1.00	0.98	-0.61	-0.78	-0.30
E7	-0.43	0.37	0.69	-0.70	-0.61	0.98	1.00	-0.61	-0.80	-0.36
E8	0.75	0.33	-0.34	0.80	0.63	-0.61	-0.61	1.00	0.72	0.42
E9	0.44	-0.12	-0.65	0.64	0.77	-0.78	-0.80	0.72	1.00	0.32
E10	0.57	0.10	-0.10	0.34	0.49	-0.30	-0.36	0.42	0.32	1.00

In Factor analysis the percentage of variance accounted for by factors with Eigenvalue greater than 1 before rotation is 76.7%. After rotation is shown below.

After Rotation

FACTOR	EIGENVALUE	PCT OF VAR
1	5.32979	73.4
2	1.92986	26.6

EQUIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2
ELEM1	-0.13297	0.80585
ELEM2	0.72686	0.67835
ELEM3	0.86863	-0.01864
ELEM4	-0.65469	0.46722
ELEM5	-0.55146	0.47167
ELEM6	0.81223	-0.37559
ELEM7	0.86802	-0.36735
ELEM8	-0.38259	0.88418
ELEM9	-0.71938	0.50324
ELEM10	-0.19688	0.49892

FACTOR 1. Only element 3 is exclusively loaded on this factor but associated with it are elements 6 and 7 clustered very close together and element 2 which is equally loaded on Factor 2. Factor 1 then may be a factor of unhappiness with school. Element 2's involvement may simply be because of the teacherliness it shares with element 3 rather than any antipathy about school.

FACTOR 2. Elements 1 and 8 load on Factor 2 most obviously and apart from the family connection there is little clue as to its nature. Elements 5 and 9 cluster and possibly represent 'approachable' people. Element 10's loading on Factor 2 suggests perhaps that the parent too is seen as not available for talking to. The presence of the pupil amidst this may suggest an aloofness or a feeling of isolation not necessarily to do with school.

Complexity Indices.

- 1.Number of factors=2
- 2.% variance on first factor=73.4%
- 3.% variance on factor 1+2=100%
- 4.Bieri's measure=89
- 5.Ct=736

PRO-SCHOOL VS ANTI-SCHOOL. A COMPARISON

A comparison of the two groups of children is described below for factors under the heading of COMPLEXITY INDICES. In addition the same comparison is carried out for a number of created variables which are combinations making use of the complexity indices described above to allow examination of possible interactions. The table below summarises the results of the comparisons made between the two groups for the variables, both established and created.

Mann-Whitney U Test of Pro-school children Vs Anti-school children.

Variable	Significance of 'U'
Number of construct factors.	0.12
% of variance accounted for by the first construct factor.	0.47
% of variance accounted for by the first two construct factors.	1.00
Bieri's measure for construct complexity.	0.46
Number of element factors.	0.22
% variance accounted for by first element factor.	0.10
% variance accounted for by the first two element factors.	0.30
Bieri's measure of element complexity.	0.10
Number of Element factors + Construct factors.	0.34
Total % of variance accounted for by the first factor for elements and constructs together.	0.58
% of variance accounted for by the first two factors for elements and constructs together.	0.72
Bieri's measure for elements + Bieri's measure for constructs.	0.20

As will be understood from the above results there are no significant differences between the two groups in terms of cognitive complexity. The test carried out below utilises the new complexity variable discussed in the chapter 7.

Ct for constructs.

Pro-school children. Anti-school children.

MEAN RANK

5.20

MEAN RANK

6.67

U 2-TAILED P

11.0

0.4642

Ct for elements.

Pro-school children. Anti-school children.

MEAN RANK

5.60

MEAN RANK

6.33

U 2-TAILED P

13.0

0.7150

It is clear, then, that there are no differences between the groups in terms of cognitive complexity. It is not possible from the evidence gathered here to support the proposition that the pro-school group might be more tender minded or person centred than the anti-school group. Nor, indeed, is there evidence to support the opposite.

The remaining issue to be examined, therefore, concerns pupil self identification. Do anti-school pupils have greater allegiance to home than to school? Where, indeed, do their allegiances lie and do they differ from the allegiances of pro-school pupils?

PUPIL PERCEPTIONS OF SELF

Given the ostensible nature of these two groups it might be expected that pro-school pupils would identify more with authority figures than anti-school pupils. It might be expected that anti-school pupils would identify with deviant figures more than pro-school pupils.

What follows is an examination of just that through the medium of the element grids. The measure used on grids to judge how 'associated' constructs or elements are with each other is based on the idea of 'distance'. Thus elements which are close to each other on the factor display are judged to be construed as more alike or going together in some logical sense than elements which are further apart. This can simply be measured by use of the correlation between each element.

Thus an examination was carried out of the differences between the two groups in terms of their construing of authority and deviant figures from the information on the element correlation matrices. The elements are listed below for ease of reference.

- ELEMENT 1.A PARENT.
- ELEMENT 2.A GOOD TEACHER.
- ELEMENT 3.A BAD TEACHER.
- ELEMENT 4.A PUPIL WHO LIKES SCHOOL.
- ELEMENT 5.A PUPIL WHO HATES SCHOOL.
- ELEMENT 6.A HAPPY DOGGER.
- ELEMENT 7.AN UNHAPPY DOGGER.
- ELEMENT 8.MYSELF.
- ELEMENT 9.AN ADULT I COULD TALK TO.
- ELEMENT 10.AN ADULT I COULD NOT TALK TO.

The table shown below summarises the comparison of pro school children with anti school children by correlations of each group with Authority and Deviant figures.

Hypothesis A: Anti-school children will associate themselves less with authority figures than will pro-school children.

Significance of Mann-Whitney U.

1. Test. Self with 'a good teacher.'
i.e. Element 8 with Element 2. $p = 0.33$
2. Test. Self with 'a bad teacher.'
Element 8 with Element 3. $p = 0.36$
3. Test. Self with 'a parent.'
Element 8 with Element 1. $p = 0.89$
4. Test. Self with 'an adult I could talk to.'
Element 8 with element 9. $p = 0.61$
5. Test. Self with 'a teacher I could not talk to.'
Element 8 with Element 10. $p = 0.83$

Both pro-school children and anti-school children do not significantly differ from each other in their identification with teachers; good or bad. Both groups identify equally with a parent, with 'an adult I could talk to' and with 'an adult I could not talk to'.

Hypothesis B: Pro-school children will identify less than anti-school children with deviant peers and vice-versa.

1. Test. Self with 'a happy dogger.'
Element 8 with Element 6. $p = 0.75$
2. Test. Self with 'an unhappy dogger.'
Element 8 with element 7. $P = 0.05$
3. Test. Self with 'a pupil who likes school.'
Element 8 with element 4. $p = 0.64$
4. Test. Self with 'a pupil who hates school.'
Element 8 with element 5. $p = 1.00$

With the exception of Test 2 there is little significant difference between the groups in terms of their identification with 'a happy dogger' or an 'unhappy dogger'.

There is no significant difference between the groups in terms of identification with 'a pupil who likes school' nor is there with a 'pupil who hates school'.

CONCLUSIONS

It is perhaps a little unexpected but none the less of interest that pupils for all they may be perceived differently by their teachers are equally enthusiastic or indifferent to those issues held dear by adults.

It may be said that pupils, whether good or bad in the eyes of their teachers, swim lazily in a warm soup of indifference to concerns dear to the hearts of teachers and perhaps researchers. On the surface it may be the case that pupils perceived as pro-school by teachers are more positive. However in the deeper strata of allegiances and identifications there is no evidence from Repertory grids as used here to support this idea.

Pupils, it seems, are bewilderingly compliant and positive about the world of schooling and it is perhaps more appropriate to ask why in

fact so many actually persist in coming to school each day rather than the reverse (cf. Sayer 1987).

A subjective/qualitative view of construing

A complete list of the factors used by each child is provided below:

Pro-School.

1. Easy going. Likeable. Demanding.
2. Positive. Involved.
3. Warmth. Responsible.
4. Tough minded. Tender minded.
5. Shy. Quiet. Pro-school.

Anti-school.

6. Sociable. Good pupil. Belongs.
7. Good pupil. Irresponsible. Conformity.
8. Good natured. Nervous. Fit.
9. Open/out going. Contented. Comfortable.
10. Good pupil. Peer culture. Depressed/guilty.
11. Conformity. Impersonal.

These factors were constructed from the Equimax Rotated Matrices. Constructs loading in excess of 0.5 on a factor were used to make a judgement as to the nature of the factor. While clearly all the factors used by the pro-school pupils are positive and to do with emotional style it would be difficult to argue that the anti-school pupils are essentially different in the underlying structure of their construing. The factor 'good pupil' does appear however in half the cases of anti-school pupils and not at all in the pro-school pupils. This may indicate an extra sensitivity to that which they are deemed not to be.

There is enough of interest here to make the exercise worth repeating with a larger more representative sample controlled as much as possible

for differences other than their pro or anti-schoolness. At the very least there is the basis in the above list of factors for a questionnaire which, it could be argued, is based on areas of concern provided by the children themselves.

Currently two groups of children, 10 in each group, have been sampled and matched from S3 in another large Glasgow comprehensive. They have been computer selected on this occasion for their differing attendances and a better attempt to control for other factors has been made this time. Over the next few months the 'experiment' of chapter 8 will be repeated with this new sample with the addition of an attitude questionnaire in an attempt to provide external validation for the Repertory grids.

Chapter 9, which follows, will attempt to draw together the findings of chapters 7 and 8 but will, in addition, attempt to tie together the whole endeavour and to look at its implications.

CHAPTER 9 DISCUSSION AND CONCLUSIONS

TEACHER ATTITUDES

Part 2 of this research has been concerned with the micro-climate of the school, in which truancy flourishes.

It is probable, given the evidence of the literature (Rutter 1979, Cuttance 1985, Reynolds 1985, Carroll et Al 1977), that schools do make a difference to pupil outcomes. It was hypothesised that outcomes (truancy in particular) were generated not only by different styles of management but that different outcomes would have antecedents in the bloodstream of teacher attitudes.

It was hypothesised that schools which have high attendance levels may not only be well run in management and curricular terms but possess an ethos, measurable in the attitudes of the staff, which is characterised by the standards of child centredness/progressiveness.

The measurement of teacher's attitudes.

Two schools were chosen as comparators which were as alike in as many gross features as possible and as unlike as possible in the one outcome variable of truancy. Ten teachers were provided by the management of each school to be representative of the range of staff in each school. Each one was tested by Repertory grid and an examination of each grid yielded both data of an objective and subjective nature.

Greater trust and emphasis was placed on data which was objective: measures of cognitive complexity were obtained from the grid and inadequacies of Bierli's index were discussed and a modification described. Lesser emphasis was placed on the nature and quality of the constructs and underlying factors generated by them. It is difficult to deal with the semantics of the constructs generated by grids as there is no guarantee that what is actually meant by a construct can be precisely understood by anyone other than the subject. One man's softheartedness may be another's weakness of resolve. Nevertheless it is proper that the constructs and underlying factors are at least presented for some consideration.

Constructs and factors.

The constructs themselves are provided in Chapter 7 and comment is made there as to their possible nature. A further consideration of their factor structure on the same basis as for the child sample, in Chapter 8, was possible and is shown in Chapter 7.

It will always be open to dispute as to what exactly is to be drawn from the subjective consideration of construct data but it is proposed as a conclusion here that school B is much more focussed on standards of presentation and behaviour as measured by external rule. Six out of the ten teachers in school B use the idea of the 'good pupil' as a major plank of their construing. No teacher in school A does so. Teachers in school A seem much more intangible in the semantics of their construing and appear to wrestle with the problem/ personal/ affective dimension of those in their school world.

It is therefore concluded here, albeit with the caveats already mentioned, that teachers in school A are more child centred and progressive than their colleagues in school B on the evidence of construct use as presented here.

Cognitive complexity

Five different measures of cognitive complexity were examined in this study:

1. Number of factors.
2. Variance accounted for by factor 1.
3. Variance accounted for by first two factors.
4. Bieri's Cb.
5. A modification of 4 (Ct).

There was no significant difference between school A and school B on measures 1 to 4 but on measure 5 school A was found to be cognitively simpler than school B. This was in the predicted direction and highly significant ($p = 0.007$).

Some conclusions about teacher attitudes.

It is concluded in general therefore that on both subjective (Construct use) and objective levels (Ct) schools with 'good' outcomes (attendance) will have teachers who are in attitude more child centred and progressive as evidenced by the Repertory grid measures described in this study. Schools do appear to make a difference and one aspect of what causes the difference is teacher attitude.

PUPIL ATTITUDES

The second line of enquiry in Part 2 of this study concerned itself with the feelings and attitudes of pupils towards school or more precisely towards the persons in their school world.

As described in Chapter 8 two groups of children from S3 of the cohort in the school used in Part 1 of the study. All children provided were members of the cohort and although it was not specifically asked for, the antischool group were significantly ($p = 0.037$) poorer in attendance than the proschool group. The nature of the two groups is dealt with in greater detail in chapter 8 and discussion can be found there.

It was expected that the differences in attitude found by Kavanagh and Carroll (1977) would be picked up on the Rep' grids at least on the subjective level of construct use. Further tests of self identification would, it was felt, confirm the expected differences between the groups at a more objective level.

These issues are discussed in more detail in Chapter 8 but the results were quite surprising and perhaps saddening for professional educators.

Some conclusions about children's attitudes

It appears to be the case that secondary school pupils are a good deal more in sympathy with each other than they are with the values attributed to them by teachers and educational psychologists.

There were no significant differences between the two groups in terms of their construing in the Repertory grids. Neither in the subjective evidence of construct use nor in the style of construing as evidenced by the more objective measures of cognitive complexity. Greater cognitive complexity (Cognitive confusion ?) might have been expected of the antischool group but no evidence of this was available.

It was felt, too, that antischool children would identify less with authority figures and more with deviant figures. Neither of these propositions was significantly the case (except in one case out of nine, see page 195).

Whether or not teachers construe pupils as having particular allegiances, there is evidence that the children have more allegiance to each other than to any imposed categories.

At another level this should be no surprise to teachers and others versed in the literature of adolescence as this is a time when adult approval wains and peer values start into the ascendancy.

At another level, yet again, it is salutary for those who work in schools or with young people to note that what might be assumed to be a commonsense view of what pupil attitudes should be, can be wide of the mark.

GENERAL CONCLUSIONS

Chapter 6 provided a discussion of the findings of Part 1 of this study and the first part of this chapter has presented a discussion of the results of Part 2. There remains that aspect of the study which will draw some general conclusions and implications.

It is indicated by the results of this study that there is little purpose to be served in blaming pupils for not attending school. If attendance at school is seen as desirable by society then there seem to be two approaches to ensuring it. The first and by far the most common view is that what schools provide is necessarily difficult and not necessarily appealing to young adolescents. It is nevertheless in some sense 'good' for young people to receive it and a fair measure of coercion is justified in bringing the child in contact with it.

School attendance officers visit schools and take away the names of those who do not attend. They visit the homes of truants, often at great personal risk to themselves, and if it is plain that truancy has occurred, they may refer the child and parents to various systems of

legal sanction. Parents do go to prison for the non attendance at school of their children. Children do go to residential schools to ensure that they partake of what others have decided is 'good' for them. Centralised School Attendance Departments are set up and paid for by Education Authorities all to oversee and ensure the attendance of children at school.

This expensive concern with ensuring school attendance is not confined to this country. The seriousness with which the coercive approach is taken is exemplified by Pena (1985) who describes a computerised automatic dialling system that phones the parents of truants during the evening and has raised the attendance rate at a Texas school to 97%. The system documents the numbers called, calls answered and those unanswered. It redials busy signals and unanswered numbers and is capable of recording parent response. Improved attendance rates are reported by this method in other parts of the U.S.A. by Jacobson (1985) McGinty (1985) and Slaby (1983). In Santa Maria, California, the police simply pick up everyone who is on the streets who should be in school and call in their parents to collect them.

In a very real and expensive sense the 'cause' of truancy was the Scottish Education Act of 1872. This is not a trivial point although it might seem so at first sight. Non attendance at school is primarily created by society's decision to make attendance for all compulsory.

As a society, of course, we are entitled to wonder at and to enquire why 15-20% of children do not partake of what has been decided is 'good' for them. As has been seen in Chapter 2 much of the century has been

occupied by attempts to locate what defect in the truant child could possibly account for such determined obstinacy. Latterly it was seen that attention shifted to the environment from which the truant came and only in the last ten years has attention seriously focused on the 'real cause'.

The 'real cause' is the problem we have raised for ourselves as a society by compelling children to undergo an experience which at the secondary stage becomes insufferable for near enough one fifth of them.

It is the view of this study in the light of its results that it is not only poor or stupid or maladjusted or delinquent or children from broken homes who stay away from school. Wealthy, bright, well adjusted children with both a mother and a father stay away from school.

It could be argued that it is not the fault of young people, at all, that they stay away from school but the fault of the very process which we as a society insist that they undergo.

There is, then, a second view which shares something of the first namely that children need to be educated and that we fail as a society if we allow to become derelict that duty towards them. However that 'hard' view of what is good for children is softened by the recognition of the results of the studies of the past ten years. Namely, schools can make the process of education more acceptable to young people not by watering down curricula and by the creation of easy options, but by seriously taking into account the fact that young people are not receptacles for the filling (cf Friere 1972). Education in secondary

schools is a complex interactive process involving children and adults in a joint endeavour of self development, it is hoped, for the good of both of them.

Possibly because of the small number of subjects involved, the Repertory grid study reported here did not bear the fruit hoped for by Reid (1983) in a similar study which, however, concerned itself solely with a truant sample. Reid reports the antipathy of his truant sample towards school teachers but not their families. The present study by looking also at non-truant/pro-school children raises the more fundamental issue referred to as 'name calling' in earlier chapters. It is true that in Reid's study truants were pro-family and anti-teacher but it is suggested by this study that perhaps all children, truant or not, may be found to share such attitudes.

It is a conclusion of this study that, if the Repertory grids with pupils are reliable, then it is crucial that assumptions are not made too easily about what 'deviant' groups think. It seems that it is just as likely to be the case that whatever it is they think it will more than likely be a view strongly shared by non deviant groups as well. Children are more like each other by virtue of their membership of the 'club' of childhood than they are by membership of the 'clubs' that educators assign them to.

Implications and directions

It is not feasible to predict children at risk of truancy using the kind of data described in this study. It would have been useful had the data been fuller but in a study of truants it may be inevitable that the very children who would be of most interest are the hardest to find. Had more resources been available, these children would have been pursued more assiduously.

Nevertheless it is likely that the decrease of missing values while making the statistical problems less severe, would not have added to the amount of variance accounted for. There is probably a ceiling of around 35% of the variance in attendance which can be accounted for by P7 data.

It is of major interest in this study that the effect of the Primary School of origin has turned out to be so persistent. It is supportive to the later conclusions concerning child centredness that such a result should be caused by the very type of institution which could be said to be child centred in its approach. A data-base has been established in another large Glasgow secondary school which will allow a closer look at this result, as replication is essential to exclude the possibility of artefact. A further research looking at Primary school effects on attendance is seen as an important direction to be taken from this study.

There are, however, in the findings of Part 1 of this research some quite powerful and instructive trends. Whether the data were analysed by testing the significance of differences between groups or by inspection of correlation coefficients or by prediction exercises with M.R.A the two variables which most consistently appeared to be most associated with poor attendance were material poverty (ECON) and membership of a one parent family (MAPANUM). Intelligence, as such, was not strongly associated with truancy, except in P7, as was reading ability.

If it is the case that in schools with 'good' attendance teacher attitudes are more child centred then, it would be of interest to know whether child centred attitudes in staff 'cause' good attendance.

If this is the case there are clear implications for inservice and preservice training programmes for teachers. It is clear too that the subject of child centredness requires more careful operationalising such that if this is a worthwhile training objective then what it is and how it could be built into teachers is of obvious importance.

What is to be done?

It should be clear by now that efforts to change patterns of truancy while susceptible to coercive techniques are hard to maintain and fickle of outcome. It is possible to telephone home by computer and to

organise street clean up exercises and it is possible to fine parents and hire truant officers. It is possible to send truants to residential school or to send them to mental hospital. All of these things happen and happen at great expense to the public and private purse. All of these things, which sometimes and in some places meet with success, are based on the approach which refuses to address the problem of what it is that children continue to reject.

Yet, if poverty and the membership of a one parent family are strongly associated with school absence, are these not the very areas which can be tackled politically? If a system of public, universal education is designed to reach and to benefit those who are most in need of it, and it surely must be, then, it fails if these very needy people are the ones who benefit from it least by their non attendance.

It is outwith the scope of a research such as this to suggest political solutions to the ills of society. It must surely be within the scope of all educators to be interested in the existence of areas of poverty and high rates of marital breakdown if these factors cause poorer uptake of educational resources.

The school itself must examine what is on offer and ask itself what it is that 20% of children would rather do without. The problem, of course, is not just one of rejection by truancy but the rest of the iceberg wallowing beneath the green and icy waters of suspension and discipline procedures.

Enormous amounts of time and money are currently being spent on modifying the curriculum and, of course, this is to the good as far as it goes. Yet the private view and the hidden agenda held by many teachers is that the problem of disaffected pupils will remain after the full introduction of Standard Grade. Indeed many will say as a joke, but really in earnest, that the most valuable and widely useful course change is the 'new' subfoundation level.

There is no sense in which curricular changes, alone, can seriously address the problem of disaffection without at the same time and with the same muscularity dealing with the pupil who has learning difficulties. Learning difficulties so fundamental that they will never be touched by 'cooperative teaching'.

There is no sense in which curricular changes can address the problem of the attention needing and, of course, seeking child whose needs are such that he cannot stay on task for more than five minutes before he disrupts the class for a 'top up' of attention. No curricular change can solve the dilemma of the bright but unhappy child in S3 or S4 or later who simply has had enough of what seems so irrelevant to his or her 'real' life and goes off, never to return.

All of these children along with the masses who are not so easily identifiable provide the seedcorn from which truancy and disaffection grows. It should be plain now that exercises in identification such as above are not the answer as has been thought in the past. The solution to truancy and disaffection with schools lies in the structure and ethos of the school and the education system as a whole.

If poverty and marital breakdown play the part they appear to then these wider societal problems have to be addressed as well.

What must change?

The central thrust of change must come at the grass roots level of school itself. All who have experience of working as teachers or working closely with teachers will recognise that there is almost everywhere little or no response to be made to the child who cannot cope with the normal secondary school. Yet now there is no future as there might have been in the past in the policy of shipping out the mad, the bad and the sad. 'Integration' is the buzz word. No special schools or separate schools and units for the maladjusted, they are already being integrated in some areas. No List D schools either, as they have all but disappeared and in their place is the burgeoning world of the List G. That, however, is largely privately owned and represents the thin end of yet another very expensive wedge.

Children must have their needs met wherever possible in ordinary mainstream secondary comprehensive schools. The level of flexibility currently available in most, if not all, such schools necessary to make 'whenever possible' mean 'most of the time', is simply not enough. In most secondary schools a child needs to deviate very little indeed from the main line of what is on offer before the system cannot tolerate him. Yet the system should be there to serve the child's needs. As it

is currently organised it does not do so for the 15% to 20% who truant. The larger proportion who thole it but who are often suspended or frequently on referral for discipline problems in and out of class are of greater concern as access is still open to them and the possibility of change may yet bear some fruit for them.

The ends of the secondary school system are still academic. They are served by the twin engines of order and discipline and, of course, these are laudable and desirable. The best job is still to teach the Highers class and the teacher who never gets the chance will grumble and rationalise and feel put down. The ethos of the system is the ethos of the clever child. Clever children often become teachers: dull ones rarely do.

Yet what is to be done? How can this system be reorganised for the real benefit of all children? It can be changed by the recognition that the ends of education are academic for a minority only (and their needs can mostly be well met now) but for a substantial number educational ends are personal and affective. The needs of a large number of children are much more about how to survive in a hostile and uncaring world than how to get through the examination. School and education must surely be about working together with children who are sad and abused to a greater or lesser degree by the system of which we are all a part. Poor children and children suffering from marital breakdown are entitled to have recognition and support from their schools; as, indeed, some do. The end of schooling must be to make insightful, self valuing and curious adults out of children who come to the school system quite often twisted and beaten by the family systems which bore

them. To see this as the way the system could meet the needs of most children requires secondary teachers to see their job as teaching children and not subjects. Primary school teachers by and large do this already. Scottish secondary schools never had their Primary Memorandum or their Plowden Report and the equivalent may well be necessary at some stage. But it will take a fundamental change of attitude before the ground is ready for the putative conclusions of such a report to take root.

Nevertheless attitudes of teachers must be encouraged towards the progressive/child centred end of the spectrum.

Preservice Training

At a preservice level teacher training must be about the fostering of attitudes above all and not about further examination of subject matter and the technical minutia of fact transmission. Subject departments in Colleges of Education are shrinking and amalgamating out of economic necessity rather than in a positive manner to seek what is good in the blurring of subject boundaries for trainee secondary teachers. Child centredness may be said, without offence, to be rife the further down the age range which teachers are being taught to teach. There are no subjects at infant and preschool level and there are nothing but by S6. It is a curious and damaging shift of emphasis in the training of teachers that this should be the case and a start in the battle against

disaffection could be most appropriately be made in the Colleges of Education. Secondary teachers should be taught to teach children and not subjects by a far greater emphasis upon the inculcation and fostering of child centred attitudes.

In the School

The academic end of schooling is a powerful tool in the shaping of young people but it is not the main or most important one. The pastoral care of young people by all teachers in secondary schools could become the major end of the school system should secondary teachers shift their view of themselves and what their teaching means. Inservice training of teachers is almost exclusively about how to make the teaching of subjects better by reorganising certification for more rather than fewer children. Of course this involves the affective domain but only as a minority part of the leviathan of subject centredness. The 'real' ethos of the school is still the transmission of subject knowledge and it is an ethos which pays lip service only to the needs of the whole child.

This is not to deride the efforts of Guidance teachers and departments but to make a plea on their behalf that they be supported and taken more seriously in the secondary school. Guidance teachers rarely have to abandon a subject period for a guidance one yet the reverse often happens.

A recent Consultative Committee on the Curriculum (1987) report recognise this but ultimately loses its nerve. " While not suggesting any radical departure from the organisational structure of subject departments in secondary schools, the CCC consider that, rather than teach exclusively in subject terms, teachers should increasingly contribute to wider aspects of the curriculum. The greater flexibility of such an approach enables curriculum planning, nationally and in schools, to be conceived in terms of courses related to an overall curriculum rationale and the needs of pupils rather than in purely subject terms. It also assists the operation of balance and choice within the negotiated curriculum of individual pupils."

School systems must have in them the flexibility to retain children who do not fit the present narrow range of tolerance. The child who disrupts classes and will not learn subjects does learn one powerful lesson. He learns that there is no place for him in the immediate society of his peers. He is suspended as the system cannot bend to accommodate him. He moves from school to school and into specialist systems where the lesson that he is daft, different or both is stitched into his fabric. If he is more robust or perhaps luckier he joins the 15% who stay at home and watch the television or who join the life of the city streets. Schools should never suspend any child unless as part of an overall package designed ultimately to serve his needs. Schools should expect and receive the expert advice and support of the Psychological Service in formulating and in operating pupil support systems (not discipline systems). The movement of children from track to track within a school should be as routine as it currently is from period to period. Time out from stressful areas of curriculum and

stressful social interaction should be as much part of the timetable as time spent in them. The idea that a child who demonstrates his inability to cope with the system should be spat out of the system by suspension ought to be anathema. The school system if it is to serve the end of the whole child must develop strategies of response, in the face of its own failure of the child, flexible enough to keep him in the system almost at all costs

W.F. Clarke (1973), a head teacher, has no reservations. He describes a totally integrated curriculum in his own school in Jersey as being based on the following philosophy..." The fundamental philosophy of a school can be defined as:

- a) caring for, cultivating and making continuously self aware each individual member of the school;
- b) building up relationships between individuals, through groups and 'community', towards
- c) an awareness of mankind, of which individuals and groups are part, in the environment in which man is found. In short, the aim must be to understand 'Man in his environment'."

The Psychological Services

Every school in Glasgow has at its disposal a team of supporting professionals organised by the Regional Psychological Services. This team consists of a Social worker, a Speech Therapist, Psychologists with a range of specialist expertise as well as a group of specialist teachers. Yet the interface between so much potential support and

specifically the secondary school is at best idiosyncratic and at its worst hostile.

The Psychological Service is very poor at communicating to the secondary school the range of inputs which could be available to it. Promulgation of such being conducted in a haphazard and lucky accident sort of way with, currently, most teachers in secondary schools being unaware that there is no longer a Child Guidance Service in the form they knew it traditionally.

The influence of the Psychological Service could, if promoted vigorously and positively in secondary schools, be powerful in the process of system change argued for here. Within the Service is a repository of belief systems of the kind referred to in this study as child centred or progressive. Lack of confidence in their own professional expertise and experience by psychologists springing from a tradition of isolation, hampers input on a concerted basis to large client groups. This should change with reorganisation into larger less isolated area teams but the public relations of what the service can offer lags well behind. Public relations ahead of delivery can stimulate and enhance the speed with which the service develops. The capacity of the Psychological Service to deliver massive support to secondary schools in a programme of system change exists now in Glasgow. It can be delivered by taking risks and offering positively to secondary schools in service training, staff workshops and parent and children groups.

Psychologists are expected to pick up the rejectees of the discipline system and are therefore in a strong position to insist on being involved in the design of such systems. These must be of the sort which reduce conflict by doing something with it rather than escalating it to the point of fracture. There must be a flexibility of response in the system such that teachers are able to physically change geographies with a child in distress. By this is meant that the internal environment of the school should be permeable enough to allow distressed children to be moved onto side tracks in the system where they may be engaged in appropriate tasks (tasks appropriate to their ability and level of motivation) and looped back onto the mainline subsequently.

Educational Managers.

Those who manage education are members of a broad church. From elected representatives to paid professional in the directorate and ultimately to head teachers. In between there is the Inspectorate, Advisers, S.E.D officials, Local Councillors and, coming soon, parent members of school boards. Where most influence lies is hard to say. A determined Head teacher may push reform a very long way indeed if he has the support of staff and parents (children appear to have little influence).

Politicians, of course, have the ultimate power and at local authority level are the employers of school staff. Present changes in education in Scotland will undoubtedly take place by political will despite apparent and almost universal opposition from local authorities and teaching unions. Directors of Education carry out the demands of the elected representatives, who whether they wish to or not, implement the policies of National Government.

If politicians are aware that poverty and social disadvantage are associated with absence they might be expected to formulate policies which could help the directorate to provide counteracting input to the schools.

Clothing allowances are avidly taken up by the poor and more and more money is needed for it each year. Many poor children actually turn up at school only for the free school meal. Once all children were entitled to free milk. These are not just examples of woolly minded liberal kindnesses to the poor but the faint stigmata of a caring society. Schools are places in which children, if they turn up, are occupied for a large part of the day. What goes on there, in the spheres of emotional and physical caring, should be organised by the politician through the directorate, to emulate the model of a good and loving home.

LAST THOUGHTS

Chapter 1 ended by referring to a particular school which was said to possess all the disadvantages which might have been expected to lead to severe truancy rates. The head teacher of that school was asked, quite independently of this study, to write about what it was in her school which produced good attendance. She responded in the following terms:

"Easily distracted, apathetic, solitary, miserable, day dreams are all words used by mainstream teachers to describe those youngsters for whom comprehensive education has little meaning, has become an intolerable burden, where feeling a failure is a daily event often compounded by the feeling of failure on the part of the parent.

Lack of self esteem, anxiety and tension inevitably characterise new arrivals at *****. Building relationships with parents is crucial. They need reassurance, need to be convinced that there is an alternative, a school whose curriculum is attractive and useful and most importantly can meet the needs of their child.

Meeting the staff and other pupils is the first step, talk comes later. Parents are introduced to a busy working environment where hopefully trusting relationships are the norm, where a priority is learning in a relaxed caring atmosphere, being taught by teachers whose professional expertise and personal qualities are in tune with the needs of the pupils. Teachers who have requested transfers to the school and others who have come on a temporary basis and who very much wanted to remain

form the ***** staff. Therefore the philosophy evolved as the school grew.

The curriculum includes English, Mathematics, Computer Studies, Social Studies, Environmental Studies, Science/Health Education, Art, Technical, Home Economics and Physical Education. SCOTVEC modules are available both in school and in linking Further Education Colleges for our post 16 pupils. Social and Vocational Skills Standard Grade has been piloted and Mathematics and English Standard Grade are on course for the next session.

But there is a theme or purpose which transcends the artificial curricular barriers -Education for life- where our young people are enabled to develop attitudes, skills and abilities which are appropriate transferable and useful for the future. We aim to provide a cooperative, tolerant and responsible atmosphere in which our pupils can develop self awareness, self confidence, flexibility, determination, literacy, numeracy, practical and social skills. To this end our youngsters are constantly encouraged to plan, to make decisions and to lead in real situations both in and out of school."

There is no good reason why every mainstream secondary school should not be able to say the same.

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