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DISENSUS IN THE ROLE SET: THE CASE OF THE TEACHER

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## INTRODUCTION

Any enterprise of this nature is an inevitable compromise between alternatives. In the present case it is also a compromise between a theoretical interest in the sociological postulate of role, and a personal involvement in the study of behaviour in educational settings. Selection of a research topic should not, however, proceed simply from serendipitous circumstance or from a whim of the author. It must be justified in terms of its potential contribution to the disciplines whose perspectives are employed. The current study is justified by appeal to two criteria, one sociological, the other educational. Firstly, although the concepts of role and role set are widely accepted in sociological theory, surprisingly few investigations have been designed to explore their theoretical implications. Secondly, there has been, until very recently, a marked lack in educational discussion of both theory and empirical analysis concerned with the effects of the structural properties of educational settings on the expectations and performance of personnel. The present investigation is intended to contribute to the discussion of both issues. The organisation of the thesis is a direct result of this intention. Chapter I is concerned with the theoretical problems of consensus and disensus associated with the concepts of role and role set. Chapter II applies the general theoretical perspective to a specific educational setting. Chapter III elaborates a research model appropriate to the empirical investigation of disensus in the role set of the teacher. Chapter IV describes the development of the measurement instrument and the general methodological procedures employed. Chapter V presents the findings and Chapter VI discusses the implications of the findings for the theoretical position outlined in Chapters I and II. It also suggests various supplementary analyses which might serve to further clarify the sociological and educational implications of the study of disensus in the role set of the teacher.

## CHAPTER I

### Toward a Model of Social Behaviour as Exchange

The intention of this chapter is fourfold: i) to describe the conceptual framework on which this study is based, ii) to explicate the concept of role being used, iii) to elaborate the concept of role expectations, and iv) to propose a model of social behaviour as exchange. Initially, however, some recognition needs to be given to the epistemological basis on which the study rests.

Throughout, allegiance is given to the position of instrumental nominalism. This philosophical orientation accepts that i) knowledge is measurable, not against absolute standards, but against its usefulness for specific purposes, ii) that the meaning of words is determined by the conventions surrounding their use, iii) all explanations are partial and incomplete, iv) the appropriate criterion of validity in such a situation is not veridicality, but predictive power.\*

The strategy adopted in this chapter permits the implications of this position to be developed. That is to say, the chapter indicates the specific purpose for which the particular perspective is appropriate and defines the framework of conventions within which subsequent discussion will be interpreted. As well, it outlines the partial and selective view which has been adopted and sets out the conditions against which the predictive power of the research might reasonably be judged.

#### The Social System Paradigm

Sociology conventionally conceptualises social systems as collectivities of positions rather than persons (cf. Wilson, 1966). It follows then that the social structure of a particular system can, in its turn, be conceptualised as the organised relationships existing between the various positions in that system. The interaction of the incumbents of the various positions will then constitute the dynamic character of the social system. Because positions are thus seen to be ordered and relative to each other, each incumbent can also be regarded as occupying a particular social location vis à vis other actors in the

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\* Further elaboration of this position may be found in, for instance: Meehan (1968), Rapaport (1967), and Zetterberg (1965), or notably with specific regard to sociological enquiry: Blumer (1956, 1962) and Wilson (1970).

system. Social systems can in this way be viewed as networks of interaction circumscribed by the social location of the various actors.

In any particular interaction in an extant social group a limited set of behaviours may be displayed. This set of behaviours is, to an appreciable extent, determined by the relative social locations of the actors. For instance, if the distance between two positions is great, interaction is likely to be restrained, possibly even ritualistic. If the distance is small, the interaction is likely to be less restrained and more spontaneous. It follows then, that the characteristic forms of interaction between positions will also be constrained by the conventions associated with the particular positions involved.

Actors within a system develop consistent expectations about the behaviour of the incumbents of particular roles. When exhibited, these expectations tend to encourage or coerce the behaviour of the incumbent. Because, with the passage of time, expectations come to be regarded as legitimate by other actors, any incumbent who wishes to diverge from the performance expected of him is faced with the problem of persuading those performing complementary roles that the proposed variation can be considered legitimate. If he fails to persuade them, either he, or the system, may fail to survive.

Whether any social system survives or not depends on its ability to socialise recruits and members in accordance with the demands and expectations of the relevant interlocking roles. If the system is unable to maintain a sufficient number of actors whose role performances are consonant with the expectations of other actors in the system the continuity of that system is threatened. It would seem, therefore, that the study of i) factors influencing the willingness of individuals to enter and maintain membership in social systems, and ii) factors influencing the acceptability of their role performance would have major theoretical significance for explaining variations in the resilience of different social systems. It might also have considerable practical importance for those concerned with ensuring the survival of any given social system.

#### Role Theory

Because of the complexity of interaction possible even in limited social systems, it is necessary, for the purposes of the

present undertaking, to delimit the field of study. The theoretical perspective which is adopted, both permits this delimitation and provides a basis for integrating the investigation in a relatively parsimonious way. This perspective is that of role theory.

A role theory orientation is based on an assumption of limited social determinism. That is to say, it accepts the view that individuals are coerced into behaving as they do by factors in their external environments - past or present. The three most central of these factors relate directly to the previous discussion of the social system viz. i) the prescriptive framework of demands and rules for performance associated with particular roles, ii) the behaviour of other role players as it influences role performance, and iii) the individual actor's reaction to these various factors.\*

These three factors are also clearly related to the two significant problems identified in the previous section: the willingness of individuals to enter and sustain membership of social systems and the acceptability of their role performance.

#### The Concept of Role

Because the idea of role is central to the present discussion it needs illustration. The concept is seminal in the theoretical discussions of psychologists, social psychologists, sociologists and cultural anthropologists, but despite this, there is wide divergence of definition. The term was introduced into the terminology of the social sciences by Linton (1936). His initial formulation was associated with the twin concept of status (now commonly termed position). He wrote:

"A status, as distinct from the individual who may occupy it, is simply a collection of rights and duties..... A role represents the dynamic aspects of a status..... When an individual puts the rights and duties into effect he is performing a role..... Status and role serve to reduce the ideal patterns for social life to individual terms. They become models for organising the attitudes and behaviour of the individual so that they will be congruous with those of other individuals participating in the expression of the pattern."

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\* For a detailed elaboration of these factors see Biddle & Thomas (1966).



By 1945 Linton had reformulated his position:

"The term role will be used to designate the sum total of the culture patterns associated with a particular status (read position). It thus includes the attitudes, values and behaviour ascribed by the society to any and all persons occupying the status. It can even be extended to cover the legitimate expectations of such persons with respect to the behaviour towards them of persons in other statuses within the same system.

(Linton, 1945)

In his reformulation Linton emphasises the normative nature of the role. For Linton, the role constitutes not the behaviour of an incumbent but rather the 'attitudes, values and behaviour ascribed by society to any and all persons occupying this status.' Such a normative view is accepted by a number of other authors. For example, Newcomb (1951) defines role as: "the ways of behaving which are expected of any individual who occupies a certain position." Again, Parsons (1951) makes use of a terminology in which each position consists of complementary halves, one (role) denoting obligations and one (status) denoting rights. Unlike Linton, Parsons goes on to suggest that variations in consensus over the content of roles are related to the stability and integration of the system and the degree of commitment of individuals to particular roles. For the most part, however, he assumes consensus. By contrast, Davis (1949) defines role as "how an individual actually performs in a given position", while Sarbin (1954), in a definition omitted from his later work (1968) similarly considers role as "a patterned sequence of learned actions or deeds performed by a person in an interaction situation".

Despite such diversity both Banton (1968) and Biddle & Thomas (1966) detect a growing consensus over definition and usage. Banton argues that there is now general acceptance of role as a set of norms and expectations associated with a particular position. Similarly Biddle & Thomas formulate their definition as: "the set of prescriptions defining what the behaviour of a position member should be." This latter definition of role will be used throughout the present study because i) it can readily be operationalised and ii) its normative character provides a useful basis for delimitation.

#### Role Theory and Social Structure

Social structure was earlier described as the ordering of

positions within a system. This order is directly related to the patterns of interaction occurring within that system. For example, the regularity of such interaction will determine the extent of the expectations established for the behaviour of position incumbents. Thus role expectations - expectations that consolidate and reinforce subsequent interaction - can be seen as constituting the link between social structure and role behaviour. Because of the tendency toward consolidation, variations in expectations become problematic for both individual and social system. Fortunately such variations are likely to be rule governed rather than random. They may thus, within certain limits, be predictable. It is for this reason that variation amongst role expectations is the central theme of the present study.

As Merton (1958) has pointed out, each position in a social system can be regarded as having a complement of other positions with which interaction is most frequent and salient. Merton terms this complement of positions the role set. Initially the concept was formulated in his 'Studies in the Sociology of Medical Education (1957) where he pointed out that:

"The single status of medical student entails not only the role of student in relation to his teachers, but also to an array of other roles relating the occupant of that status to other students, nurses, physicians, social workers, medical technicians, etc."

Relationships between members of the role set are likely to be governed by formal rules associated with the structure of the role set, as well as informal relationships established independently of the formal structure. The nature of these relationships are specified in three sets of rules, i) those specifying the selection of persons for positions, ii) those specifying the admissible relationships between positions, and iii) those that allocate tasks to various positions.\* In each of these areas the rules may vary from strict to lax according to the nature of the role set. For instance when the number of members admitted to a particular role is very small, as in the case of astronauts, the selection procedures are likely to be severe and highly restrictive. On the other hand, where the role is a very general one, such as that of voter, the selection criterion is generous and all individuals except children, convicted felons and the insane,

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\* For a fuller discussion see Oeser & Harary (1962).

it transpires, may become eligible. In the second instance relationships between positions can be detailed so that they circumscribe informal as well as formal contacts, e.g. severely as in military and (other) monastic organisations, or loosely as in the case of a social club. In the third instance the division of labour may either be rigid, as is the case with small production teams consisting of highly differentiated specialisms, or negotiable, as in the case of relatively unskilled and undifferentiated work groups.

Besides these sources of potential variation in rules specifying role relationships, expectations for performance can be subject to variation because of the multiple roles held by any individual in a variety of role systems. People occupying different positions within the role set are likely to be subject to differing expectations because of the differential linkage of their position to other social structures. For instance Hanson (1962) in his study of hospital administrators, hospital board members, and community leaders, noted that administrators expressed less obligation to community groups than board members. He attributed this discrepancy to the relative lack of contact between community leaders and administrators in comparison with the greater amount of contact between community leaders and board members. It might well be anticipated that sources of disensus over role expectations would also be associated with more basic non-institutional specific roles such as for example, age and sex. Whatever the situation, such differences in expectations present a potential source of disensus over role definition, and excessive disensus can be dysfunctional for the system.

In the face of excessive disensus, two results are possible; either disruption of the system may occur or attempts will be made to achieve adjustment. Logically there are three alternative ways to achieve adjustment:

- i) The incumbent of a particular position may assert what he regards as most of his rights and obligations and the incumbents of complementary positions may modify their expectations accordingly.
- ii) Incumbents of complementary positions may assert their expectations and the incumbent of the focal position may modify his expectations accordingly.

- iii) The incumbent of the focal position may assert his rights while the incumbents of complementary positions may assert his obligations (their own rights) and both may effect a compromise modification.

In addition to these logical alternatives a number of other factors may also contribute to the inhibition or solution of the problems of role definition. For example; various coalitions of incumbents of a particular role, conditions of pluralistic ignorance, variations in observability of performance, and differential involvement in the role set (Merton, 1957). However, as Merton points out, even when these mechanisms are at work, they may not, in particular instances, prove sufficient to reduce conflict of expectations below the level required for efficient operation of the role system. Indeed Merton suggests that the typical condition of the role set is one in which inadequate articulation of expectations, and disensus over expectations, inhibit maximum efficiency.

Seen from this perspective the research problem becomes i) the detection of disensus among members of the role set, ii) the identification of independent variables associated with varying degrees of disensus, and iii) assessment of the likelihood of system impairment.

#### Relevant Studies

Although there are a number of role studies that have marginal relevance for the present undertaking, two are particularly seminal. They are the investigations of Gross, Mason & McEachern (1958) and Kahn et al (1964). Both have been selected for brief discussion prior to a more detailed research review in Chapter II.

In particular, the Gross, Mason and McEachern study accomplished three things: i) it pioneered and justified the study of role consensus as an empirical variable, ii) developed a language of role analysis and iii) elaborated the degree of consensus on a specific role (superintendent) among members of the focal position and one other component in a role set (board members). The authors observed that the varying degrees of role consensus were apparently influenced by a number of variables including the degree of prior socialisation, the degree of involvement of the role incumbent, the degree of

codification of obligations, the degree of previous experience of complimentary positions, and similarities in background and values. These findings led the investigators to question the assumption made in most contemporary role theory studies, that consensus over role expectations was invariably high. In fact they asserted that, in the specific case of the role of the school superintendent, the assumption of consensus was untenable. Further, the authors presented evidence that considerable variation was to be found in the conditions under which expectations were learned, and the position of the role set member most influential in the definition of role performance. In the face of this variability, the investigators postulated that a variety of methods of compromise and negotiation were possible. These were contingent on i) the particular characteristics of the localised system and ii) the particular characteristics of the incumbents.

Kahn et al presented a model for the analysis of interpositional conflict in an industrial setting. The model was based on three groups of variables: i) organisational variables which specified the parameters of acceptable negotiation, ii) individual variables which influenced incumbents perception of and reaction to disensus on role definition, and iii) interaction variables as mediators of the relationship between conditions experienced and invoked responses. The organisation was regarded as an array of overlapping role sets which consisted of the focal position and the complementary positions most closely associated with it. The differing reactions of incumbents were explained in terms which took account of the multiple roles incumbents played in various alternative role sets. Specifically, attention was directed to i) the role sender's influence on the focal position, ii) the clarity of the expectations transmitted, and iii) the harmony of the total pattern of expectations communicated to a particular focal position.

The key concept in both studies is role expectation, while the communication of differential role expectations is seen as the immediate origin of perceived disensus on role definition. In both studies disensus was found to be endemic rather than incidental, and two main forms were distinguished: i) disensus on the part of those holding different complementary positions, and ii) overload of expectations i.e. a greater total set of expectations than could be immediately executed thus requiring the establishment of priorities.



### The Analysis of Role Expectations

It would appear then that two basic types of disensus over role expectations occur i) disensus arising from interpositional differences, ii) disensus arising from intrapositional differences. In the first case disensus occurs between incumbents of different positions in the role set as a result of i) differential task specification, ii) differential linkage to other social systems, iii) differential socialisation and selection procedures. In the second case intrapositional disensus arises between incumbents of the same position because of i) wide tolerance in selection procedures, ii) differential participation in alternative role sets, iii) differences in role involvement.

On the basis of the preceding analysis it should, theoretically, be possible to identify i) the characteristics of incumbents experiencing varying degrees of role disensus, and ii) the characteristics of systems displaying varying rates of disensus. One way of doing so is by employing a model of social behaviour as exchange.

### Social Behaviour as Exchange

Role expectations can only be communicated through behaviour. For the role theorist such behaviour consists of the interaction between incumbents of various specified positions in a social system. In order to understand role behaviour it is therefore necessary to employ a theory of social interaction. For the purposes of this study Adams' (1971) theory has been adopted, mainly because of its potential for the parsimonious explanation of social interaction.

Adams sees exchange theory as providing a basis for a view of social systems as involving an exchange of 'commodities' between members. The commodities, grossly classified as Status, Utility and Affect, are manifested as behaviour and artifacts in the system. Every social system, the argument goes, has accepted procedures by which Status is given or denied, and by which Affect and Utility are also given and denied. Adams briefly categorises the commodities in this way:

**Status.** Individuals engage in Status behaviour when they engage in pecking order practices, i.e. they allocate or deny rank and recognition. Ingratiation, deference, respect, insult, contempt are terms characteristically associated with statusing behaviours.

**Affect.** Individuals engage in Affect behaviour when they give or deny love or hate to others. Affection, care, friendliness,

warmth, dislike, hate are terms characteristically associated with affect behaviours.

Utility. Individuals engage in Utility behaviour when they give or deny goods or services to others. Profit, less advantageous, useful, profitable, unhelpful, are terms characteristically associated with utility behaviour.

In any given social system however, all commodities may not be equally dominant. For example, in a marital system Affect is presumed to dominate; in a military system Status does; in an economic system, Utility does. Nonetheless, all three elements are to be found to a greater or lesser extent in all systems. Adams attempts a rationalisation of this thesis on the grounds that each component can be identified in all known human societies: all societies have institutionalised forms of stratification, care, and economic specialisation. In passing, the affinity of this categorisation with the concepts of political, social and economic man was also noted.

### Discussion

In summary, this chapter has presented a conceptualisation of a social system as consisting of a network of positions whose incumbents interact predictably and in accordance with the expectations held for their performance but whose performance is nonetheless subject to modifications when expectations are changed. In their performance of such roles, incumbents are seen to exchange the 'commodities' of Status, Affect and Utility according to their relative positions, and the surrounding environment of role expectations. This conceptualisation presents a basis for the more specific analysis of a single role - that of the teacher - presented in the following chapter.

## CHAPTER II

### A Framework For the Analysis of Teacher Classroom Role

This chapter is concerned with fitting the current investigation into the context of earlier, related studies. It is arranged in three major sections: i) an examination of the current literature on teacher role, ii) an examination of the literature on the classroom as a behavioural context, and iii) a synthesis of literature and theory into a context specific framework for the analysis of teacher role.

It is a corollary of the conceptualisation presented in the previous chapter that because the relative positions of actors determine the nature of their interaction, both the positions under consideration and the context of their interaction need to be specified before predictions can be made. An initial survey of the literature on teacher role indicates that the teacher position, the pupil position and the positions of principal, school superintendent and school board member feature most frequently in discussion. On occasion occupants of such positions in the educational role set have been further differentiated according to their membership of alternative role sets such as: ethnic or religious sets (Fishburn, 1962; Mays, 1963; Terrien, 1953, 1955): occupational sets (Koopman, 1946; Trabue, 1953): socio-economic sets (Cheong & DeVault, 1966; Collins & Smith, 1965; Hart, 1965; Phillips, 1955): and community sets (Chilcott, 1961; Jordan, 1929; Mays, 1963; Reitz et al, 1965).

Contextual differentiation has been mainly confined to: school level (e.g. Merrill & Jex, 1964; T. Smith, 1965; D. Smith & Cooper, 1965; Yamamoto & Dizney, 1966): school type, such as religious, public or independent (e.g. Allen & Seaberg, 1964; Becker, 1953; Hatfield, 1961; Siedman & Knapp, 1953; Yourgliche, 1955): community ecology (e.g. Barker et al, 1964; Campbell, 1970a; Chilcott, 1961; Mays, 1963; Pace, 1967; Reitz et al, 1965): classroom or home (e.g. Allen & Seaberg, 1964; Bogen, 1954; McSweeney, 1970a, 1970b; Twyman & Biddle, 1963; Watts, 1970a, 1970b). In some cases, differentiation has been based on highly specific contexts such as lessons concerned with particular subject matter (e.g. Greenhoe, 1940; Story, 1950; Yamamoto & Dizney, 1966). Studies of teacher role expectations



specifically related to classroom performance have been few in number and limited in scope. Moreover, where such studies have been pursued they have predominantly been concerned with psychological rather than sociological explanation. The present study attempts to expand from a sociological perspective the information available on teacher role. Necessarily, however, the paucity of relevant literature and the currently restricted focus on the classroom context restricts the range and scope of the overview.

### Teacher Role

As Biddle (1969) has pointed out, two broad (and surprisingly isolated) fields of investigation into teacher role can be distinguished i) studies of role behaviour, where teacher performance is observed, and ii) studies of role expectations held for teacher behaviour. Only the second of these is relevant to the present investigation.

Studies of role expectations can conveniently be differentiated according to i) the position held by the actor expressing the expectations, ii) the characteristics, behaviours, or, as Biddle and Thomas call them, the "properties" about which expectations are expressed, and iii) the behavioural context specified. Of the 74 studies of teacher expectations reviewed by Biddle (1969), some 48 reported data from teacher subjects, 43 from pupil or student subjects, 12 from administrator subjects and 4 from guidance counsellor subjects. A variety of further criteria was used to identify sub-groups holding specific positions. For instance, incumbents of the position teacher were differentiated according to ethnic, religious and racial backgrounds (Fishburn, 1962; Mays, 1963; Terrien, 1953, 1955): school level (Adams, Kimble & Marlin, 1970; Merrill & Jex, 1964; T. Smith, 1965; D. Smith & Cooper, 1965; Yamamoto & Dizney, 1966): number of years within the school (Champlin, 1931; Haggard, 1943): school type (Allen & Seaberg, 1964; Becker, 1953; Hatfield, 1961; Seidman & Knapp, 1953): the training received (Arkoff & Shears, 1961; Brenner et al, 1962): and the subject matter taught (Brookover, 1943; Dunlop, 1965; Fishburn, 1962; Lacognata, 1965). Significant differences have consistently been associated with the following variables; seniority, qualifications, experience at primary, secondary and tertiary levels, subject specialism, level taught, age, sex, race, religion marital status and training.

Studies reported have also indicated a wide variety of interests, from the physical features of the teaching population (Jones & Gottfried, 1966): through the backgrounds of teachers (Bogen, 1954; Hart, 1965; Ryan, 1966): to traits of teacher behaviour (e.g. Becker, 1953; Keighin, 1948; Richey & Fox, 1948; Rogers, 1950; Yamamoto & Disney, 1966; Yourglic, 1955). For the most part such studies have focussed on expectations for performance.

Performance, as previously suggested, is linked not only with the position held, but also with the behavioural context. Thus a variety of strategies have been adopted for limiting the behaviour under consideration by specifying particular contexts. Of the studies reviewed by Biddle (1969) for instance, some nine specified a physical location such as classroom, home or community (e.g. Allen & Seaberg, 1964; Bogen, 1954; McGill, 1931; Twyman & Biddle, 1963). Further studies of this nature specifying the classroom as the behavioural context are those of Adams, 1970a, 1970b; Dunkin, 1970; Evans, 1970; Jackson & Lahaderne, 1967; Schmuck, 1963; Silcock, 1970; and Thomas, Becker & Armstrong, 1968. Other studies employed highly specific contexts such as particular kinds of lessons or field trips (Greenhoe, 1940; Hanson & Umstattd, 1937; Story, 1950; and Yamamoto & Disney, 1966).

One further and necessary distinction must be made: that between actual and attributed expectations. Actual expectations are those expressed by position holders. Attributed expectations are those stated by one position holder to be held by the incumbents of complementary positions. The present report concentrates on comparisons between the actual expectations of teachers and the expectations they attribute to various other members of the role set: parents, pupils and other teachers. This emphasis is justified by the argument that actual discrepancies in expectations between members of the role set are unlikely to influence teacher performance under conditions of pluralistic ignorance. Rather, perceived discrepancies, whether or not they correspond with actual discrepancies, are more likely to affect both teacher performance and job satisfaction thus relating directly to the issues of system maintenance and impairment.

### Relevant Studies of Teacher Role

Because of the considerations outlined above, and despite the increasing number of studies reported in the literature concerning teacher role, there appear to be only two studies with which they present study can usefully be compared: The Missouri Comparative Study of Teacher Role, and the study undertaken in England by Musgrove and Taylor - *Society and the Teachers Role*. Both are treated in turn below.

#### The Missouri Study.

Four countries were involved in the Missouri study: the U.S.A., U.K., Australia and New Zealand. The principal relevance of the study to the present one inheres in a shared interest in role conflict, the classroom context and a specified role set. The data of the study were derived from answers to a questionnaire, part of which includes items relating to 'perceived interpositional conflict'. The relevant items had been derived from an intricate analysis of structured interviews previously undertaken in the participating countries. Items were selected on the basis of whether or not they generated variation. These ten areas were translated into statements and respondents were asked to indicate on a Likert-type scale, the extent to which they thought that various members of the role set sanction their engaging in the activity specified. These ten statements were:

1. Your regular attendance at meetings of P.T.A.
2. Your willing acceptance of non-professional duties.
3. Consistently maintaining orderliness and quiet in your classroom.
4. Emphasis on a broad range of goals in your instruction.
5. Usage of corporal punishment for the control of difficult pupils.
6. Confining your activities during free periods to professional matters only.
7. Strict adherence to administratively provided curricular plans in your classroom instruction.
8. Your avoidance of speaking out on controversial topics.
9. Your having an occasional drink at a local bar or hotel.
10. Emphasis on social advancement in your instruction.

The various positions in the role set specified for the attribution of expectations by teachers were: school officials, principals or headmasters, other teachers, and parents.

Jones (1970) in his discussion of the results derived from some 12,000 teachers, ranked the ten items according to the degree of summated conflict generated. His conclusion was that the items that generated most conflict were those whose focus was the professional role of the teacher (items 7, 2, 6). Those generating least conflict were those concerning moral issues (items 5, 10, 3). Interestingly enough, those items claimed by Jones to represent moral issues are those most closely related to classroom practice, i.e. the use of corporal punishment, emphasis on social advancement and orderliness.

The framing of the Missouri items, however, presents them as highly generalised issues which may tend to divorce them from the actuality of classroom performance. Again, the atheoretical nature of the item construction tends to focus on those features most likely to generate conflict rather than on the central features of classroom interaction. Thus, although significant differences were found between the norms stated for each of the positions sampled, very little can be said regarding teachers' perception of expectations for teacher classroom role.

A second section of the Missouri study focussed on various 'perceived teaching styles' (Adams, 1971). This section of the study, although confined to teachers' estimates of their own classroom emphasis (thus precluding comparison among role set members), showed the following factors to be most significant in explaining variance in preferred teaching style: school level, sex of respondent, age level of pupils, qualifications of teacher, sex of school, religion of respondent, in that order and with school level accounting for three times the variance of the next closest item.

#### *Society and the Teachers Role* (Musgrove & Taylor).

Taylor and Musgrove (1969) conducted a series of studies of i) the expectations held by parents, pupils and teachers for the role of the teacher, and ii) teachers perceptions of the expectations of various role set members. The original questionnaire was derived from the analysis of some 1,379 essays on 'a Good Teacher', and 'a Poor Teacher' written by children in junior, secondary modern and grammar schools. Statements about teachers were sorted into four categories: 1) Teacher Personal Qualities, ii) Teacher Organising Abilities, iii) Method of Teaching and, iv) Method of Discipline. The most

frequently occurring statements were then translated into four corresponding scales. A fifth scale consisting of the two most frequently specified items from scales i, iii and iv was also constructed. Respondents were asked to rank items in order of preference. These five scales were administered to 897 school children, and the composite scale was administered to 131 teachers and 43 teachers college students. The results of this administration indicated that the stated preference of pupils placed most emphasis on teaching method and least on personal qualities. The emphasis of teachers was the reverse, rating the importance of teachers' personal qualities high and teaching method relatively low.

In order to investigate further the apparent differences between teacher and pupil expectations, Taylor and Musgrove devised another scale for use with teachers. It was based upon the questionnaire previously used with pupils. In this case, teachers were asked to attribute expectations for teacher role to Headmasters, Colleagues, Parents, Pupils, an hypothetical idealised teacher and to themselves. The four dimensions used earlier - Teaching Method, Organisation, Personality and Discipline, were again chosen although they were less explicitly stated than in the previous instrument.

Analysis showed the most significant discrepancies to appear between those expectations attributed to Headmasters and those attributed to Pupils, with Teachers and Parents appearing midway between the two. Disparities were greatest on the Personality and Discipline dimensions, with teachers stressing the supposed pupil emphasis on Personality and supposed headmaster emphasis on Discipline. It would appear from the discussion of their results that Taylor and Musgrove have managed to provide an index of perceived conflict capable of measuring both intensity and direction.

Given the largely atheoretical bases of these studies and the generality of the scale items it must be conceded that they have a less than direct relationship with the present study. What is needed to make good the intentions of the present study therefore, is a more precise theoretical definition as well as an explicitly stated context of reference. Part of the groundwork of such a theory has been presented in the previous discussion of social behaviour as exchange. The second major component is derived from the study of classroom interaction.



### The Classroom as a Behaviour Setting

By the nature of their office teachers engage in interaction with students more frequently than with any other members of their role set. Much of this interaction is circumscribed by the behavioural setting of the classroom. As Barker and Wright (1955) have shown, behavioural settings can be regarded as complex systems with internal and external dynamics, comprehensive in character and, most importantly for this study, coercive of behaviour. To this extent, the classroom as a behaviour setting can be seen to limit, define and differentiate the behaviour of its inhabitants. If classrooms coerce behaviour, and if the most frequent interactions between teacher and student take place in the classroom setting, it would seem reasonable to take this setting into account when studying teacher role. The subsequent discussion therefore centres on an analysis of studies that have displayed an interest in classroom interaction.

### Studies of Classroom Interaction

Studies of classroom interaction have, until recently, been limited by the techniques available for observing and recording behaviour *in situ*. Recently, with the advent of magnetic tape, and, especially, video-tape facilities, such studies have proliferated at an increasing rate (Adams, 1965; Campbell, 1968). However, the study of this phenomenon, like the study of role behaviour, shows as yet only the most tentative theoretical unity. Two main reasons can be given for this situation, i) the immense variety of behaviour displayed in classrooms, and ii) problems associated with conceptualisation (see Biddle, 1967).

Despite these problems, several reviewers have consistently detected similarities in orientation of the various instruments used. Meux (1967) classifies studies according to Affective, Cognitive and Multi-Aspect systems which consist mainly of Cognitive, Affective and Management components. Amidon and Simon (1965) similarly categorise systems into Cognitive, Affective and Multi-Dimensional, noting that those studies classified as Multi-Dimensional consisted of three major dimensions: emotional climate, verbal emphasis and social organisation. Campbell (1968) in discussing the studies of Adams (1966), Flanders (1962) and Gordon, McNeil et al. (1962) notes their concern with management, affective and cognitive interaction.

As a result of such attempts to survey the field, there appears to be growing agreement over gross classification categories. This agreement has been accelerated by the trend noted by Simon & Boyer (1970) towards shorter, easier to use systems which collapse the innumerable precise categories of the early systems into a more limited number of concise categories.

A variety of specific studies have some relevance to the present investigation. Most however are psychological in orientation and show concern with individual rather than group characteristics. A degree of translation is thus required before they can usefully be related to the sociological perspective of the present study.

#### Selected Studies of Classroom Interaction

One of the most comprehensive of the more recent studies of classroom interaction was that of Medley & Mitzel (1958) based on the work of Cornell, Lindvall & Saupe (1952). After subjecting the detailed records of their observers to centroid factor analysis, Medley and Mitzel extracted three factors which they termed Emotional Climate, Verbal Emphasis and Social Organisation. These categories dealt respectively with the degree of warmth and friendliness, the extent of verbal interaction and the social organisation of the classroom. As such, these categories closely parallel the affective, cognitive and management functions previously mentioned. Similarly Oliver & Shaver (1966) in the context of the development of a problem oriented social studies curriculum produced a classroom observation system consisting of three main categories of teacher style: Socio-emotional, Cognitive and Procedural. Likewise, Smith (1967) reviewing some of the main conditions influencing classroom learning emphasised pupil social relations, and the cognitive and affective aspects of teacher behaviour. Recently, Simon & Boyer (1970) in their classification of some 75 observation systems noted that 64 include affective categories, 48 include cognitive categories, 27 include routine/procedural categories and some 14 include all three. There would seem to be growing agreement among psychologically oriented studies on the ubiquity of such categories. In the single sociologically based study reported in the literature (Adams, 1965; Biddle & Adams, 1967; Adams & Biddle, 1970) classification of functional content into Subject Matter, Sociation and Organisation was employed. Adams (1965)

describes the classification as follows:

"Subject Matter meanings are concerned with 'task elements which are derived mainly, but not exclusively from syllabus and curriculum prescriptions.

Sociation meanings relate to inter-personal exchanges concerned with affective, socio-emotional behaviours.

Organisation meanings are identified in those communications which are directed towards the maintaining and perpetuating of the classroom as a functioning system. They are essentially administrative in character.

Such a classification of the content of classroom interaction is consistent with the previously described studies and is adopted as the basis of differentiation of content in the present study.

Such a categorisation does not need to rely only on the degree of communality perceived in previous research. Despite the limitations of functional theory (Davis, 1959), good reasons have been provided in the literature for considering each of the proposed categories as associated with essential functions of the school. These have related to the organisational characteristics of educational institutions, and the transmission of culture in both its skill-oriented and norm-oriented dimensions. Both are discussed below.

#### Organisational Characteristics

Schools, maintained Willard Waller (1932) in his classic *Sociology of Teaching*, are organisations in a constant state of perilous equilibrium. This is so because their order rests upon the authority principle which is constantly being threatened by students. Despite this contention and the argument of Gross (1959) concerning the ambiguity of consensus over goals and role behaviour in schools, classrooms do for the most part fulfil Etzioni's organisational definition; that is, they depend on i) a deliberately planned division of labour, ii) the direction of activities from one or more power centres, and iii) the substitution and reallocation of personnel on the basis of performance (Etzioni, 1964). Furthermore, they also exhibit the genotypic organisational properties identified by Fraser (1967a, 1967b) as associated with problems of goal-specification, task accomplishment, internal integration and adaptation. Moreover, the conditions of crowds, praise and power, identified by Jackson (1968) impose problems of routinisation, queuing and frustration similar to those found in most bureaucracies. Activity in classrooms becomes,



for the most part, organised so as to meet these problems in as orderly manner as possible. Order, routine and structure are essential components of the learning context and as such are likely to consume a significant segment of classroom time. The proportion of time devoted to the establishment of routines and order is likely to reduce as students accommodate to the general organisational rituals of classrooms. But, as Smith & Geoffrey (1968) have indicated, 'grooving the children' into appropriate role and activity patterns is an important constituent of the establishment of control.

#### The Transmission of Knowledge and Skills

The instructional content of classroom activity is often considered as a major, if not the major, function of the school (Goslin, 1965; Shipmen, 1968, Grambs, 1965). In its technical aspects the transmission of culture is a necessary prerequisite of the continuance of societies based on the extension and application of science and technology. In fact, the chief energies of many educationists are devoted to the processing of information (through the development of curriculum plans and materials) into structures that will communicate knowledge and skills to the uninitiated. Attempts have been made to analyse the 'Realms of Meaning' (Phenix, 1964) and 'Structures of Knowledge' (Hirst, 1966, 1969) so that an adequate rationale for the communication of knowledge can be developed. Similarly, attempts have been made to achieve a theory of instruction (e.g. Bruner, 1966) which incorporates psychological principles believed to facilitate the transmission of knowledge and skills. At another level, the contribution this process of transmission makes to national economic development has been increasingly recognised during the past two decades (Schelsky, 1957; Vaizey & Debauvais, 1960; Schultz, 1961; Hurd & Johnson, 1967). In all these cases the assumption is made that a central activity of the school is the transmission of knowledge and skills through its subject matter.

#### The Transmission of Norms and Values

Equally important in the socialisation of children is the inculcation of certain value and belief systems. As Swift (1969) puts it; 'education is designed to develop in children the beliefs, habits of thought and of action which are thought to be necessary and

desirable in society'. What these beliefs, and habits of thought and action are, will vary from society to society, but for contemporary western society, Dreeben (1970) following Parsons (1959) paper on the function of the school class in American society, has developed a persuasive case for the school as a social setting where 'pupils learn to accept principles of conduct, or social norms, and to act according to them'. The principles of conduct that Dreeben holds to be central to contemporary American classrooms are those of independence, achievement, universalism and specificity. These norms can be learnt only in a social situation and, Dreeben contends, are learnings essential for contemporary man. Whether Dreeben is correct or not - and there are telling criticisms to be made of his functionalist stance, see Loubser (1970) and Etzioni (1970) - there can be little doubt that normative behaviour is an essential component of classroom interaction.

The argument of this chapter has been in essence, that as role behaviour is constrained by the social setting of the actor, the context of interaction must be specified before predictions concerning behaviour can be formulated. Secondly, as the classroom is a major context of teacher role performance, it would seem appropriate that the characteristics of this particular social setting were specified in the examination of teacher classroom role. Thirdly, because both existing research and functional theory provide grounds, the designation of three content categories of classroom interaction as Organisation, Subject Matter and Sociation seems justified. In the next chapter the arguments presented here and in the preceding chapter will be integrated to provide the research model which constitutes the basis for the current investigation.

## CHAPTER III

### Research Model

Previous chapters have established that: i) role behaviour can be dimensionalised according to the modes of interaction characteristic of relationships between two or more positions, and ii) in the specific case of teacher role behaviour in the classroom context, interaction can be further dimensionalised according to its characteristic content. It was also argued that: iii) disensus in the role set is likely to predict to system impairment; iv) the unwillingness of individuals to retain membership of the role set can be taken as an index of system breakdown; and v) the identification of personal and system variables<sup>o</sup> associated with dissatisfaction may consequently provide useful explanatory information.

Accordingly, the present chapter is concerned with the construction of a research model for investigating such factors, and with the setting out of relevant hypotheses.

#### Research Model Components

The model is designed to permit the measurement of relationships between role disensus and system impairment and between role disensus and a number of personal and system variables. Central to the model, because it provides the basis for educing the extent of disensus, is a matrix of teaching 'styles'. These styles, which are seen as archetypal, are derived when the two role dimensions, content and mode, are opposed to each other. Each dimension is facettted into three categories which are mutually exclusive and collectively exhaustive of the specified universe. Elaboration of the teaching style matrix follows. First, each dimension is treated separately and then the integration of the two dimensions is discussed.

Content. Consistent with the earlier discussion, the three categories of the Content dimension are: Organisation, Subject Matter and Sociation. They have been constructed on the assumption that communication provides the key to classroom behaviour. They may be described in the following way:

- i) Organisation. Most ongoing social groups exhibit certain structural characteristics and organisational properties which are pursued in the interests of consistency and continuity. Predictably, certain of the interaction in classrooms is directed toward the maintenance of the classroom as a functioning system. The communications that result are essentially administrative in character, referring to routines, timetables, the allocation of tasks and responsibility, the disposition of plant, people and equipment, and the description and justification of the resulting manoeuvres. The uniformity and stability of organisation in classrooms has been pointed out by Jackson (1968) and the amount of classroom interaction devoted to organisational interaction has been assessed at approximately 15% (Adams, 1967).
- ii) Subject Matter. Subject Matter interaction is concerned with the content of curricula and syllabi. It includes both the dissemination of information and the intellectualisation associated with it. The dominance of Subject Matter interaction in classrooms is widely accepted. Its extent has been documented by Adams (1967) who reports some 72% of classroom time devoted to various forms of Subject Matter interaction.
- iii) Sociation. Sociation is the interpersonal exchange of 'feeling'. Its basic character is socio-emotional. As such it includes both the spontaneous expression of sociability and adherence to recognised social conventions. As well as the display of conventions it also includes exhortations about the appropriateness of forms of social behaviour. Ritual elements in classroom activity are included and may well be an important element in the ordering of classroom relationships (Bernstein, Elvin & Peters, 1966) - although both Flanders (1962) and Adams (1967) have noted with surprise the small amount of verbal sociation observable in classroom settings.

Mode. The three categories of the Mode dimension are Status, Utility and Affect. These are seen as commodities available for exchange. The nature of the associated behaviour as it is manifested in classrooms is briefly described below.

- i) Status. Statusing behaviour is essentially a matter of giving or requiring recognition or deference. As such it relates to

the conventions associated with rank. When engaging in statusing behaviour an individual either seeks recognition from others or gives it to them.

- ii) Utility. Utility behaviour has as its focus the exchange of goods or services. Utility behaviour for the role teacher can be regarded as educative behaviour, for example giving information, the eliciting of reasons, the training of skills, etc. Pupils, on the other hand, may return different kinds of Utility, for example collecting books, recounting experiences and so on.
- iii) Affect. Affect is concerned with exchanges of expressions of personal, subjective feeling. It covers such aspects as the display of warmth and friendliness, liking or disliking. In social exchanges individuals may either get or give both positive and negative affect or they may deny or be denied it also.

The matrix providing the foundation for the present study amalgamates these two dimensions. Nine individual cells are formed, each of which

		Mode Dimension		
		Status	Utility	Affect
Content Dimension	Organisation	1.1 Organisation Status	1.2 Organisation Utility	1.3 Organisation Affect
	Subject Matter	2.1 Subject Matter Status	2.2 Subject Matter Utility	2.3 Subject Matter Affect
	Sociation	3.1 Sociation Status	3.2 Sociation Utility	3.3 Sociation Affect

Fig. 3.1

Matrix displaying Integration of Mode & Content Dimensions

represents a unique combination of Mode and Content (Fig. 3.1). Each of the nine can be seen as a distinctive teaching style which gains its identity from the character of the combination. Traditional conceptualisations of teacher style have, for the most part, been somewhat less complex than the position taken here. For instance, some studies have presented a dichotomous division into 'traditional' versus 'progressive' styles (Chamberlin & Chamberlin, Drought & Scott, 1942; Gooch & Kellmer-Pringle, 1966; Hopkins & Mendenhall, 1934; Helbing, 1940; Jersild et al., 1941; Sax & Otina, 1958). Others have been concerned with the Lewin, Lippitt & White (1939) classification of Authoritarian, Laissez Faire and Democratic styles - and adaptations of it into pupil-centred versus teacher-centred, dominative versus integrative styles (e.g. Anderson & Brewer, 1945, 1946; Baldwin et al., 1945; Cogan, 1958; Flanders, 1970; Krumboltz & Farquhar, 1957; Lorge et al., 1958; Rehage, 1951; Thompson & Thom, 1957; Tiedman, 1942; Withall, 1949, 1951). Because the conceptualisation of the present study includes more than these conventionally accepted major types, each needs brief elaboration. The styles have been named according to the particular combination of mode and content involved.

1.1. Organisation/Status. This teaching style emphasises the organisational elements of classroom activity and, in the process, stresses the principle of status differentiation. Such a classroom is likely to be dominated by routines and procedural rules and is likely to emphasise authority and obedience as essentials for the maintenance of classroom order.

1.2. Organisation/Utility. This teaching style emphasises the function of organisational procedures in facilitating the execution of tasks. The organisation employed at any one time is likely to be selected on the basis of its anticipated efficiency because the predominant criterion of value is utility or 'pay-off'.

1.3. Organisation/Affect. This teaching style stresses the importance of organisational procedures but, concurrently, manifests regard for interpersonal relationships. Rather than placing emphasis on authority based order, Organisation/Affect in its most optimistic form, subscribes to the idea of happy efficiency.

2.1. Subject Matter/Status. In this case the teaching style places predominant emphasis on Subject Matter. It also subscribes to



the principle of Status differentiation. Thus, Status tends to be accorded the Subject Matter and individual Status is judged on the basis of facility with Subject Matter.

2.2. Subject Matter/Utility. In this case the emphasis on Subject Matter is again predominant but appeal is made to a criterion of usefulness rather than status. Teachers here are likely to be concerned with the relevance and demonstration of vocational applicability.

2.3. Subject Matter/Affect. Teachers who display this style stress that Subject Matter is important, but are also concerned about the personal feelings of members of the group. Rather than emphasising the Status derived from knowledge, or its Utility, the focus is placed on social relationships and group learning.

3.1. Sociation/Status. In this style, social relations are emphasised but so is the authority principle. Thus the ordering of social relationships according to Status is paramount and the regularity and facility of interaction is organised on this basis.

3.2. Sociation/Utility. Here social relations are viewed as facilitating mutual interests. They are seen as important and useful in achieving the individuals desired ends and cooperation is regarded as mutually beneficial.

3.3. Sociation/Affect. This teaching style emphasises social relations and interpersonal feeling. In this case the importance of socially sensitive interpersonal behaviour is stressed.

Casual observation would suggest that these styles have their adherents in the world of the teacher. For instance, secondary school teachers are frequently regarded as subject centered while primary school teachers are expected to be pupil centered and more concerned with affective and social behaviour. Similarly, specialists are thought to be more concerned with subject matter than are non-specialists. Again, some teachers gain reputations as authority figures and may, indeed, deliberately encourage such an image as supportive of control and discipline. The nine styles presented above should be regarded as ideal types rather than as total descriptions of actual teacher behaviour. It is not assumed that teachers are slavish adherents of one particular style to the exclusion of all others, for the preference for, or exhibition of any particular teaching style may well be specific

to certain situational and population characteristics. Frequently a combination of styles appropriate to different situations and differentially emphasised is likely to be characteristic of any particular teacher. There are, however, likely to be consistencies both in the behaviour of teachers and the situations to which they are exposed. For a given teacher or a given situation it should therefore, be possible to determine the pattern of such consistencies - the rule governed character of his behaviour. In the present instance, this can be done by constructing a profile based on the emphasis given to each of the nine categories. Such a profile might well indicate emphasis on a single major category. Alternatively, the distinctions between individual scores on the nine categories may be minimal.

However, the nine styles, though plausible, were derived. As such they are strictly speaking, atheoretical. On the other hand, the Content and Mode dimensions through their separate categories have a more direct relationship with a theoretical position. And it is through the organisation of the matrix that six prototypical scores consistent with the theory can also be generated. They represent, respectively, Status, Utility and Affect styles and Organisation, Subject Matter and Sociation Contents. This is achieved through combining cell scores in sets of three, so that they become representative of the original components of the two theoretical dimensions. Prototypical scores, representing the six components of the Mode and Content dimensions can be derived from summation of each of the three vertical and three horizontal columns of the matrix. Each of the prototypical scores will then comprise three related scores displaying similarity in one dimension: Organisation, Subject Matter, Sociation, Status, Affect and Utility. Organisation will comprise 1.1., 1.2., and 1.3., being emphasis on Organisation Content in all three Modes. Subject Matter will comprise 2.1., 2.2., and 2.3., being Subject Matter in all three Modes. Sociation will comprise 3.1., 3.2., and 3.3., being Sociation in all three Modes. Status will comprise 1.1., 2.1., and 3.1., being Status in all three Contents. Utility will comprise 1.2., 2.2., and 3.2., being Utility in all three Contents. Affect will comprise 1.3., 2.3., and 3.3., being Affect in all three Contents.

From assessment of each of these prototypical categories a further profile can be constructed indicating the relative emphasis



placed by respondents on each of these dimensions. Comparisons between profiles can then serve to differentiate among respondents on the basis of differing emphasis on Status, Affect and Utility, and on Organisation, Subject Matter and Sociation.

The question now arises of the veridicality of such a categorisation. To what extent can scores on such a profile be said to represent the reality of the teacher's world? The issue is the conventional one of instrument validity. However, it will be recalled that the philosophical position on which this study rests (see Chapter I) does not permit the question. Nothing may be measured against reality because reality is unknowable. Thus the answer to the veridicality question has to be rephrased in terms of the power of the instrument to discriminate between teachers with admittedly differing styles. This is an empirical issue and as such is dealt with in later chapters.

#### Job Satisfaction and System Maintenance

The research is designed to predict to system maintenance (or impairment), the second major component of the model. However, its definition of system maintenance poses certain problems. The measurement of the condition of a system requires reference to criteria. In the present case two criteria seem possible. The first would measure the 'health' of the system against some absolute standard. The second would measure the condition of the system at two different points in time, relying on a relative judgement to indicate whether the second condition is better or worse than the first. Because of the considerable value overtones present in the first alternative the second will be employed here. Again, because of the design of the study, present time and near future time (within 5 years) have been selected as the criteria. Thus the problem resolves itself into the comparison of the state of the system now as against its future condition. Given the range and variety of conditions possible, it follows that a selection has to be made. The selection has been made here on the assumption that social systems are impaired if members leave. In fact, decline and demise of the system is inevitable if members continue to leave and replacement is not made - even if replacement is made, then the original social system is modified and to this extent ceases to be identical with the original one. The research problem is to arrive at some index of personnel retention. Statements of

(i) job satisfaction and (ii) length of intended stay in the profession have been chosen to provide such an index. This is discussed below.

It is contended here that members of the focal role 'teacher' who experience low job satisfaction are likely either to (i) reduce the cohesion of the role set, or (ii) leave the role set. Each of these alternatives threatens the stability and maintenance of that social system. Indications of job satisfaction and expressions of likelihood of leaving the system can then be taken as indicators of the stability of that system. The continuance and stability of the role set is, as was argued in earlier chapters, dependent also on the consonance and compatibility of expectations held by members of the role set for each other's behaviour. It follows, therefore that where any member of the role set attributes to others expectations for his performance which are at variance with his own, a state of dissonance or disensus is likely to occur. Presuming that a state of dissonance is uncomfortable for the individual (Festinger, 1957, 1958) then a high degree of teacher disensus is likely to lead to low job satisfaction and to an increased likelihood of leaving the profession. Indications of the degree of such disensus can be derived from the stated expectations teachers attribute to various members of the role set. The extent of the differences between the teachers' own definition of his role and the definitions he attributes to significant others, provides an index of the degree of disensus. Previously this kind of disparity has been called role conflict (e.g. Biddle, 1969), intra role conflict (e.g. Musgrove & Taylor, 1969) and felt conflict (Kahn et al., 1964). None of these terms is entirely satisfactory. 'Role conflict' is ambiguous because of its failure to distinguish between inter and intra role conflict. Similarly intra-role conflict may be the result of incompatible task accomplishment components and does not necessarily involve disparate expectations of various role set members. Furthermore, 'role conflict' has overly dramatic connotations, suggesting a physical confrontation which is seldom, if ever, consistent with the operationalisation of the concept. Felt-conflict is perhaps more satisfactory but suffers, as do the other terms, from the overstatement implicit in the use of the word 'conflict'. On the other hand, disensus does not inevitably imply physical confrontation or violence. Indeed the disensus that arises from disparities among attributed expectations

may be entirely artifactual and need not be equated with the expectations stated to be held by role set members themselves (for example, see Foskett, 1969; Schank, 1932; Wheeler, 1961). In an attempt to avoid these ambiguities the current study labels the disensus arising from disparities between own and attributed role expectations attributed disensus. It should be noted however, that the disensus is the result of differences generated from statements of attributed expectations and as such is not necessarily explicitly perceived or accepted by the subjects themselves. In other words it is the researcher who attributes the disensus, not the subjects themselves.

It is now possible to state a series of hypotheses about the relationships expected between attributed disensus and job satisfaction. The hypotheses listed below follow from the preceding argument.

H.1. The greater the attributed disensus the greater the prospect of system impairment.

This hypothesis is general in that it makes no mention of the specific components of the disensus nor the nature of the system impairment. However, if system impairment is taken to mean 1) low job satisfaction, and ii) intention to leave the profession, the following more specific hypotheses can be advanced:

H.1.2. to 1.7. The greater the attributed disensus over respectively Status, Utility, Affect, Organisation, Subject Matter, and Sociation:

- a) The less the job satisfaction, and
- b) The less the likelihood of staying in the profession.

These hypotheses deal with only two basic components of the model - attributed disensus and system maintenance. The third component, personal and system variables is dealt with next.

#### Personal and System Variables

The identification of variables associated with varying degrees of disensus and job satisfaction has been recognised as a potential source of explanatory information. It has been suggested that two major sets of variables are relevant: i) variables which are associated with the position held by the incumbent, and ii) variables associated with the specific characteristics of the incumbent. They will subsequently be referred to as system variables and personal variables respectively. As noted in Chapter II, those system variables

which have previously been identified as associated with significant differences in role orientation are: seniority, qualifications, training, experience, specialism and class level. Each of these system variables can be seen as a component in the organisational differentiation of position and task-allocation. In the real world of the system they provide convenient bases for discrimination between personnel. They thus appear to provide plausible grounds for prediction.

Personal variables are frequently associated with system variables but can be differentiated from them according to the degree of uncertainty over the relevance as grounds for discrimination. For instance, seniority is normally associated with age. However, system variables such as qualifications and training are expected to take precedence over age (other things being equal) when selection for a particular position is considered. Similarly, certain personal variables such as religion are in many school systems deliberately and officially regarded as irrelevant (and illegal) criteria for distinguishing among position incumbents. Such variables may, nonetheless, be associated with differences in the perception of role expectations. Those personal variables regarded as especially significant in this study are age, sex, race, religion and marital status.

#### Relationships between Job Satisfaction and System Variables

Fraser (1967a) reports that job satisfaction decreases with (i) increasing specialisation, (ii) experience of the teacher, and (iii) level of the school. Job satisfaction might also be associated with seniority, qualifications and teacher training because seniority generally implies identification with the system, at least to the extent that sufficient time has been spent in the job for seniority to be achieved. One might therefore expect that the more senior teachers will be more satisfied. On the other hand, increased qualifications increase the possibilities of alternative careers. The increased possibility of an alternative career might well, taken by itself, decrease job satisfaction, particularly when more satisfactory working conditions are experienced by peers in alternative occupations. Teacher training, however, might be expected to increase the level of job satisfaction because of the attendant degree of socialisation into the profession, and the fact that most entrants, being young on entry

to teachers college, have seldom seriously considered alternative careers. The following hypotheses are therefore advanced:

- H.2.1. The greater the seniority, the greater the job satisfaction
- H.2.2. The higher the qualifications, the less the job satisfaction
- H.2.3. The longer the training, the greater the job satisfaction
- H.2.4. The greater the specialisation, the less the job satisfaction
- H.2.5. The greater the experience, the <sup>greater</sup>~~less~~ the job satisfaction.

#### Job Satisfaction and Personal Variables

Precedent exists for also predicting an association between job satisfaction and the variables of age, sex and religion. Fraser (1967a) has shown job satisfaction among teachers to be associated with age and sex. Again, Colombotos (1964) reports that female teachers are 'more professionally committed' than males, and Protestants more than Catholics, and Horn (1966) reports higher levels of job satisfaction among women teachers.

On the basis that minority status influences role perception (Clarke & Clarke, 1952; Kenny, 1956; Simpson & Yinger, 1959; Westie, 1964) the present study also assumes that race may be associated with job satisfaction. The following hypotheses are therefore advanced:

- H.3.1. Job satisfaction is a function of age of teacher: the greater the age the greater the job satisfaction.
- H.3.2. Male teachers will experience less job satisfaction than female teachers.
- H.3.3. Teachers of minority racial status will experience less job satisfaction than teachers of majority racial status.
- H.3.4. Protestant teachers will experience greater job satisfaction than Catholic teachers.

#### Personal and System Variables and Degree of Attributed Disensus

The fourth major set of predictions of association arises from the relationships between personal and system variables and attributed disensus. Biddle (1970) reporting on the Missouri comparative study indicated that among the best predictors of role conflict were,

respectively; qualifications of respondent, age, sex, race, grade level, and denominational affiliation. Further, it may also be argued that system variables are likely to predict to attributed disensus because an incumbent's identification with the specifications of the system will lead to a decrease in disensus. For this reason hypotheses relating System Variables to Disensus follow the general pattern of a predicted decrease in Disensus with increases in the System Variable. The following hypotheses are therefore presented.

- H. 4.1. The greater the Seniority the less the Gross Disensus and the Disensus over Status, Utility, Affect, Organisation, Subject Matter and Sociation.
- H. 4.2. The greater the Experience the less the Gross Disensus and the Disensus over etc.
- H. 4.3. The greater the Qualifications the less the Gross Disensus etc.
- H. 4.4. The greater the Length of Training the less the Gross Disensus etc.
- H. 4.5. The higher the Grade Level the less the Gross Disensus etc.
- H. 4.6. The greater the Specialism the less the Gross Disensus etc.

In the case of Personal Variables only one linear prediction is made, the assumption being that Age will in general be associated with Experience and Seniority and will therefore predict in the same direction. Thus:

- H. 4.7. The greater the Age the less the Gross Disensus etc.

Hypotheses relating to the remaining Personal Variables are dichotomous and rely on the same assumptions made when relating Personal Variables to System Maintenance, the major assumption being that Personal Variables which predict to low Job Satisfaction will also predict to high levels of Disensus. The following hypotheses are therefore presented:

- H. 4.8. Male teachers will experience greater Gross Disensus than Female teachers and greater disensus over Status, Affect etc.
- H. 4.9. Teachers of Minority Racial Status will experience greater Gross Disensus than teachers of Majority Radical Status and greater Disensus over Status etc.
- H. 4.10. Protestant teachers will experience less Gross Disensus than Catholic Teachers and less Disensus over Status etc.



- H. 4. 11. Married teachers will experience less Gross Disensus than Single teachers and less Disensus over Status etc.

#### Research Model

It is now possible to present the research model that contains the components and their specified relationships. The three major components of the model have been specified as: i) attributed disensus, ii) system impairment, and iii) a range of personal and system variables. As well, the direction and nature of relationships have been predicted and the rationale for the predictions exposed.

Fig. 3.2.

#### Predicted Relationships between Variables

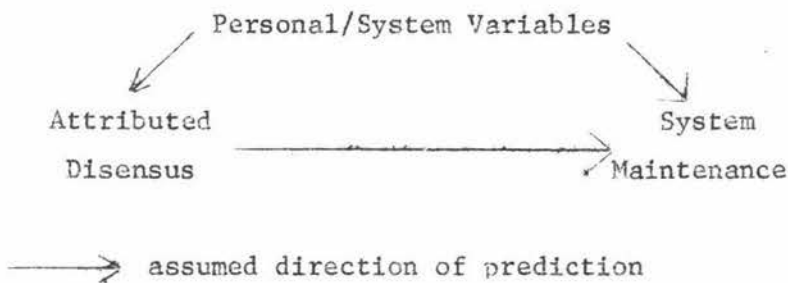


Figure 3.2. summarises these components and the predicted relationships. For instance, predictions are made in the hypotheses from Personal and System variables as Independent Variables to i) Measures of system maintenance and ii) measures of Attributed Disensus as Dependent Variables. The third direction of prediction is from Attributed Disensus as an Independent Variable to System Maintenance as a Dependent Variable. However, the problem of cause remains a vexed one. Some antecedent-subsequent relationships are clearly defined, e.g. the sex of the teacher preceded his experience of job satisfaction. Consequently it can hardly be argued that the degree of job satisfaction determines the sex of the respondent. But neither does the reverse necessarily hold. All that is being measured is a tendency towards association. The discerning of relationships merely increases descriptive power. For example, if sex and job satisfaction are shown to be significantly related it follows that one may predict with some greater degree of accuracy what proportion of a given population of females is likely to experience job satisfaction. Similarly, in



predicting to individual cases, one may increase (slightly) the odds of predicting correctly. It is for this reason that some of the correlational studies reported in the literature have to be viewed with caution. For instance, correlations have been reported between consonance of expectations and job satisfaction of teachers (Bernstein, 1959; Bidwell, 1955, 1957; Campbell, 1958, Ferneau, 1954; Guba & Bidwell, 1957; Moyer, 1954). Investigators have reported such correlations as indicating that greater consonance over role expectations leads to greater job satisfaction, a conclusion unwarranted by the studies (Charters, 1963). The presentation of relationships between groups of variables in Fig.3.2 should, therefore, only be accepted as displaying the procedure adopted in defining which components shall be treated as dependent variables and which shall be treated as independent.

The operationalisation of the research model, the methods of data collection and the data analysis employed provide the substance of the following chapter.

## CHAPTER IV

### Methodology

This chapter is concerned with the operationalisation of the research model. Specifically, it deals with i) the construction, interpretation and evaluation of the research instrument, ii) population characteristics, iii) methods of data collection, and iv) techniques of data analysis employed.

#### Research Instrument

Data were collected by means of a ten page questionnaire.\* The organisation of the questionnaire was a direct result of the explicit theoretical basis developed in preceding chapters. It incorporated measures of the three major sets of variables: i) attributed disensus, ii) system maintenance, and iii) personal and system characteristics. The following discussion details the ways in which each of the variables was measured.

#### Disensus Measures

The measure of attributed disensus employed the nine archetypical categories described in Chapter III. The archetypes were generated by opposing the three Mode categories with the three Content categories thus producing nine distinctive types. For the operationalisation, each type was converted to a statement that described, in general performance terms, a corresponding teaching style. Such descriptions were designed to be i) consistent with the theoretical framework, ii) equally impartial (no style was, a priori, better or worse than any other), and iii) relevant to the respondent's situation. An additional operationalisation problem was posed by the fact that the instrument was to be administered to nine year olds as well as to Intermediate and Secondary school pupils and adults.

In order to meet these requirements the following procedures were adopted. During the initial generation of items the authors were at pains to arrive at descriptions of each style that treated each in an equally favourable light. To this end, attempts were made to eliminate unintentional value intrusions as far as possible, by subjecting the statements to the scrutiny of colleagues. Any

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\* A copy of the questionnaire is to be found in Appendix A.

statement about which objection was expressed was eliminated and another statement from an original larger pool was substituted. The resultant statements were presented in random order to some ten post-graduate students of education, together with descriptions of the archetypes. The students were asked to identify the statements according to the combination represented. Any statement about which doubt or uncertainty was expressed was eliminated and replaced by an alternative statement from the original pool. This process was continued until agreement was achieved. The nine resulting statements were:

1. Helps the class work well by having pupils follow his directions carefully (Organisation/Status).
2. Helps the class work well by having pupils be concerned with getting on with the job (Organisation/Utility).
3. Helps the class work well by having pupils do things in ways that they like (Organisation/Affect).
4. Helps pupils to learn by showing that he knows the subject matter well (Subject Matter/Status).
5. Helps pupils to learn by showing that the subject is useful (Subject Matter/Utility).
6. Helps pupils to learn by showing that the subject is enjoyable (Subject Matter/Affect).
7. Helps pupils to get along with people by having them respect people in authority (Sociation/Status).
8. Helps pupils to get along with people by having them understand the advantages of doing so (Sociation/Utility).
9. Helps pupils to get along with people by having them show concern for others (Sociation/Affect).

It will be seen that attempts were also made to achieve a consistency of phrasing between statements representing similar dimensions. For example, 'Helps the class work well' became the stock expression for the Organisation component.

Presentation Format. To adapt the statements for the questionnaire each statement was paired with every other statement to produce thirty-six separate items. Respondents were then asked to indicate which statement in each pair was in their opinion, the best way for a teacher to teach. Respondents were thus faced with thirty-six

forced choice items which featured each of the nine statements eight times. In order to equalise the number of cases in which a particular statement occurred first, alternate pairs were reversed. The order of the presentation of items was then randomised and became: 5/7, 8/2, 4/2, 6/4, 9/1, 9/6, 4/9, 1/6, 5/3, 3/8, 2/5, 7/8, 8/4, 8/9, 5/9, 2/7, 8/6, 2/9, 1/8, 5/6, 4/7, 6/2, 7/1, 3/1, 8/5, 9/3, 4/5, 3/4, 7/3, 2/3, 1/2, 7/6, 1/4, 9/7, 5/1, 3/6. The format which is illustrated in Fig. 4.1 shows that for each pair of statements the respondent was asked to indicate: i) his own preference, ii) the strength of that preference, iii) the choice likely to be made by parents, iv) the choice likely to be made by pupils, and v) the choice likely to be made by other teachers. The strength of preference indicated for 'self' choice was moderated in order to leave open the possibility of correcting scores for respective emphasis in subsequent analyses.

Fig. 4.1.

Item Format

1	A	Helps pupils to learn by showing that the subject is useful	( )	Parents	( )
	or		Very Strongly	Pupils	( )
	B	Helps pupils to get along with people by having them respect people in authority	Strongly	Other Teachers	( )
			Slightly		

Preceding the items were instructions for self administration and a list of the separate teaching style statements in random order. A practice item was included and the introduction stressed that 'there are no right or wrong answers or good or bad ones. We just want to find out what you really think about teaching'.

Reliability

The reliability of this portion of the instrument was obtained through a test-retest check with some 30 first year teachers college students, 27 of whom were available for retesting five weeks later. Means, standard deviations, and Pearson product/moment correlations were computed for each of the archetypal categories. They are presented in Table 4.1.

Table 4.1.

Test/Retest Reliability

Archetype	Test 1		Test 2		r
	M <sub>1</sub>	S.D. <sub>1</sub>	M <sub>2</sub>	S.D. <sub>2</sub>	
1	2.815	1.280	2.630	2.084	.492
2	2.519	2.050	2.333	1.636	.525
3	4.704	2.252	4.852	2.754	.756
4	3.000	2.027	2.778	1.393	.510
5	5.926	1.358	5.630	1.230	.547
6	6.222	1.554	6.667	1.387	.739
7	2.593	2.004	2.963	1.470	.395
8	3.889	1.632	3.481	2.149	.566
9	4.259	1.661	4.556	1.574	<u>.349</u>
					average .543

Test/Retest reliabilities for the six prototypical scores, Status, Utility, Affect, Organisation, Subject Matter and Sociation were also calculated. They are presented in Table 4.2.

Table 4.2.

Test/Retest Reliability.  
Prototypical Scores

Prototype	Test 1		Test 2		r
	M <sub>1</sub>	S.D. <sub>1</sub>	M <sub>2</sub>	S.D. <sub>2</sub>	
Status	8.841	3.289	8.259	3.481	.671
Utility	12.333	3.078	11.481	3.247	.636
Affect	15.296	3.897	16.184	3.798	.769
Organisation	10.037	2.987	9.852	2.705	.379
Subject Matter	15.074	2.493	15.148	1.908	.525
Sociation	11.519	3.291	11.037	2.545	<u>.641</u>
					average .604

It will be seen from Table 4.1. that the reliabilities for archetypical scores range between .349 and .756 with an average of .543. The

reliabilities for prototypical scores range between .379 and .769 with an average of .604. The relationships between correlations can perhaps best be seen in Table 4.3. which arranges the correlations according to their position in the matrix.

Table 4.3.

Test/Retest Reliabilities						
	Status		Utility		Affect	
Organisation	1 .492	2 .525	3 .756	D .379		
Subject Matter	4 .510	5 .547	6 .739	E .525		
Sociation	7 .395	8 .566	9 .349	F .641		
	A .671	B .636	C .769			

The relationships can be seen to be complex. For instance, although the correlation for the Organisation Prototype is .379, each of the archetypical components of this dimension (1, 2, 3) display higher correlations, ranging from .492 to .756. Conversely, while the correlation on the Status prototype (A) is .671, the correlations on the related archetypical scores (1, 4, 7) are lower in all cases. Again, whereas the correlation on the Sociation prototype (F) reaches .641, the variation on the associated archetypical scores (7, 8, 9) ranges from .349 to .566. In general, correlations on the prototypical scores are higher than those on the archetypical categories.

Comparison with other similar instruments employed in similar research is difficult. Comparisons with the instruments prepared by Taylor and Musgrove and for the Missouri Comparative Study are not possible as neither study reports, nor apparently undertook, any form of reliability check. The only instrument of comparable nature tested under similar circumstances in New Zealand was Broadley's (1970) adaptation of Fishburn's (1965) measure of the dimensions of the teacher's role. This study reported correlations ranging from .31 to .48 between tests using a similar teachers college student population. In terms of this comparison, the reliability of the current instrument can be considered satisfactory.

In terms of comparison with other kinds of instruments the current measure can also be considered satisfactory. Although not reaching the .7 level of some attitude scales the majority of correlations reported

exceed the .6 level - a level commonly accepted in initial development of new scales where previous research has failed to explicate with any degree of precision the dynamics of the factors under consideration (Fox, 1969).

Several factors may have influenced the level and nature of the correlations. Firstly, the instrument requires a forced choice among two alternatives. It follows from this that alteration on one dimension necessarily entails alteration on another, thus leading to an automatic exaggeration of differences and in turn to lower correlations. Secondly, the population concerned was undergoing a process of initial socialisation into teaching through a training programme designed to reinforce certain attitudes and modify others. Change of preference among this population on such an instrument might therefore be expected. As a result, the employment of such a population in a reliability check may well represent exposure to unusually stringent conditions. Thirdly, scores on each of the archetypes were derived from eight items. This is a relatively small number of items and may well have served to reduce the correlations. Finally the relatively small number of respondents (27) involved in the test/retest situation might also have served to have the same effect. Given the character of the instrument, the nature of the test/retest population, and the fact that comparable instruments have yet to demonstrate higher levels of reliability, the reliability of the current instrument can be considered adequate.

#### Measurement of System Maintenance

Two measures of system maintenance were employed: i) job satisfaction, and ii) projected length of stay in the profession. Job satisfaction was measured on a five point Likert-type scale and classified teachers into groups who were:

- i) Very Satisfied
- ii) Moderately Satisfied
- iii) Neither Satisfied nor Dissatisfied
- iv) Moderately Dissatisfied
- v) Very Dissatisfied.

Projected length of stay in the profession was measured on a similar five-point scale and classified the population into those:



- i) Very Likely to Leave
- ii) Quite Likely to Leave
- iii) Uncertain
- iv) Quite Unlikely to Leave
- v) Very Unlikely to Leave

within five years.

Both items followed the format used in the Missouri study although some modification of phrasing was undertaken.

#### Personal and System Variables

In addition to the measures discussed above, various system and personal information was requested as a basis for differentiating the population. In terms of the system variables six characteristics based on previous research results were selected as the most likely predictors. They were: Seniority, Qualifications, Teaching Experience, Length of Training, Specialism, Level at which teaching is pursued.

The same criterion of previously established predictive power was employed in the selection of the five personal variables about which information was sought. These five variables were: Age, Sex, Race, Religion, and Marital Status.

#### Data Collection

Data for the present study was collected by some forty graduate students engaged in research work for a Diploma in Education. For the most part these students were extra-mural (correspondence) students and were located in primary schools, intermediate schools, secondary schools, the inspectorate, teachers college staffs and various advisory services in a variety of locations throughout the country. Each investigator was required to obtain some thirty respondents from among teachers of his local district. Complete participation of staff members of particular schools was sought in order to go some way towards ensuring randomness of the total sample. Eight hundred and forty teacher subjects were approached of whom six hundred and ninety seven (83%) returned questionnaires.

#### Sample Characteristics

Because of the data collection procedures used, the sample was not a consciously obtained random sample. Neither is it possible to

assert with certainty that the sample is representative of New Zealand teachers although it contained both primary and secondary teachers of both sexes and varying ages, qualifications and experience. Although the population samples was not designed as a systematic and representative sample, various characteristics serve to reinforce the impression that it may not be particularly atypical. No reliable statistics are available concerning the demographic characteristics of the New Zealand teaching force. However it is known, for example, that the sex ratio approximates 1:1. Our sample ratio also approximates 1:1. Similarly the age characteristics of our sample are what one might well expect: viz. a large number of young teachers; considerable reduction, particularly of women, in the middle years; and a definite stabilising and tapering effect during the later years. In addition, the religious affiliation of our sample approximates the national norms drawn from the 1966 census. On such evidence it would be possible to argue that our sample shows signs of being close to a random and representative sample of New Zealand teachers. However, despite such evidence, no representativeness will be claimed and only relationships between particular variables are specified and predicted. It may well be however, that the results of the investigation warrant greater generalisability than is claimed.

#### Data Analysis

##### Disensus

The questionnaire, besides requiring the respondent to state his own expectations, also required him to attribute expectations to three other reference groups: Parents, Pupils and Other Teachers. Four sets of scores were therefore generated. Each set yields nine archetypical scores and six prototypical scores. Comparisons between the sets on each of the prototypical scores yield discrepancy scores. For instance, when the respondent's or 'Self' score for Status is compared with the Status score derived from responses attributed to Parents, the resulting difference is a Status discrepancy score. Similar procedures when followed yield discrepancy scores between Self and Pupil, Self and Other Teacher responses, also beyond this again, from the different comparisons (Self-Parent, Self-Pupil, Self-Other Teacher) discrepancy scores can be added together to yield an index of the total amount of disensus. The three individual comparisons can be taken as indicators of a directional disensus in that they measure the amount of disensus attributed to

members of two positions in the role set, in this case between the focal role 'Teacher' and the other role set members - Pupil, Parent and Colleague. The current study focuses on the combined effect of disensus arising from all sources within the role set. In this fashion the total disensus arising from attributions of expectations to various role set members can be summated on six prototypical dimensions: Status, Affect, Utility, Organisation, Subject Matter and Utility. These dimensions can be used for discriminating between groups of respondents on the basis of the characteristics over which disensus is typically generated. For instance, it may well be that one group of teachers displays high disensus on the Status dimension and another group high disensus over Affect. It is also possible to summate the disensus scores on the six prototypical dimensions to give an index of the total amount of attributed disensus from all dimensions and all sources within the role set. This gross score can again be used for differentiation.

In summary, seven discrepancy scores are used. The first six correspond to the composite discrepancy scores summated from all role set comparisons on each of the six dimensions. The seventh, Gross, score is the result of summation of the previous six and gives a composite indication of the total of attributed disensus.

#### System Maintenance

Differentiation according to the system maintenance variables was according to the previously described Likert-type scales with a scale point range of 1 - 5.

#### Personal and System Variables

The classification procedures used as a basis for analysis between groups was as follows:

<u>Seniority:</u>	Code #1 (High)	Principal or Head Teacher; Vice-Principal or First Assistant; Supervisor of Junior Classes.
	Code #2 (Medium)	Senior Assistant Mistress; Head of Department; Sole Teacher.
	Code #3 (Low)	Assistant Master; Assistant Mistress; Specialist Teacher.

<u>Qualifications:</u>	Code #1 (High)	Masterate; Masterate with Honours; Doctorate.
	Code #2 (Medium)	Bachelor's Degree; Bachelor's Degree plus Diploma; Double Bachelor's degree.
	Code #3 (Low)	Trade or Technical Certificate; Trained Teacher's Certificate; Undergraduate Diploma.
<u>Teaching Experience:</u>	Code #1 (Long)	20 years and over.
	Code #2 (Medium)	10 to 19 years.
	Code #3 (Short)	0 to 9 years.
<u>Specialism:</u>	Code #1 Humanities:	English; Languages; History; Geography; Art & Craft; Music.
	Code #2 Sciences:	Physics; Chemistry; Biology; General Science; Maths.
	Code #3 Vocational:	Agriculture/Horticulture; Homecraft; Metalwork; Woodwork; Engineering; Commercial Typing; Book-keeping.
<u>Age:</u>	Code #1	Up to 29 years old.
	Code #2	From 30 to 49 years.
	Code #3	Over 50 years.
<u>Sex:</u>	Code #1	Male.
	Code #2	Female.
<u>Race:</u>	Code #1	European.
	Code #2	Maori.
	Code #3	Other.
Note: Three categories were established according to the proportions of the population reported in the census.		
<u>Religion:</u>	Code #1	Roman Catholic (incl. Catholic).
	Code #2	Anglican.
	Code #3	Other Protestant.
	Code #4	None/Atheist/Agnostic.
<u>Marital Status:</u>	Code #1	Single.
	Code #2	Married.
	Code #3	Divorced/Separated/Widowed.
<u>Training:</u>	Code #1	No training.
	Code #2	1 - 2 years training.
	Code #3	3 or more years.

### Statistical Procedures

In order to cope with the considerable number of possible comparisons between and within groups, and in order to present the relationships between variables as clearly as possible, statistical procedures were chosen with two main criteria in mind: efficiency and power. Unfortunately available computer facilities were inadequate to cope with complex programmes such as the Automatic Interaction Detection Programme developed by the University of Michigan's Institute for Social Research.\* Reliance had, necessarily, to be placed on less complex procedures. Various design and population characteristics indicated that the following procedures would prove effective:

1. When comparing the variance of populations differentiated according to personal, system, and system maintenance variables on the measures of role disensus, a single classification analysis of variance was employed to detect the presence of one or more variant sub-group distributions.
2. Subsequent to the detection of such variance at better than .05 levels, the Scheffé test was applied to individual sub-group means in order to detect those comparisons which lent most weight to the overall variance.
3. Where populations were differentiated according to nominal, ordinal or interval data and were being compared with measures of a similar kind, the chi-square statistic was employed.

Because of the gross error factor produced by the application of multiple analysis of variance to grossly unequal cell N's and populations of other than normal distribution, the use of multiple analysis of variance was considered inappropriate.

The single classification analysis of variance was chosen instead of multiple t group comparisons because of its ability to test simultaneously whether the means of a number of groups were significantly different. The analysis of variance was carried out using ANOV1, a programme adapted for this study from a routine programme of the Massey University Computer Unit.

Subsequent to the analysis of variance it was necessary to determine in what ways the means varied between groups, and further,

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\* Sonquist, J.A. & Morgan, J.N. (1964) *The Detection of Interaction Effects*. Institute for Social Research, University of Michigan.

which intergroup comparisons contributed most to the overall significance detected by the analysis of variance. In order to cope with the problems caused by groups of unequal sizes while retaining suitability for any comparison, the Scheffé\* method of Multiple comparisons was employed in preference to either the  $t$  method which is insufficiently robust to cope with unequal  $N$ 's among multiple groups, or Duncan's multiple Range test, whose mathematical derivation has recently been called into question. The Scheffé test has the virtue of being relatively insensitive to departures from normality and homogeneity of variance, can cope with multiple comparisons and overcomes the problems presented by unequal cell  $N$ 's. The Scheffé test was computed on a programmable Canola 164P from means generated through another local IBM 1620 programme.

Chi-square statistics were applied to categories where a mixture of nominal, ordinal, interval data precluded the use of ANOVA. It was chosen as being the most powerful non-parametric statistic available. Chi-squares were computed on the Canola 164P from frequency tables compiled during previous analysis on the IBM 1620.

The following chapter presents the findings.

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\* For a discussion of this statistic and its application, see Glass & Stanley (1970) *Statistical Methods in Education and Psychology*, Prentice Hall, p. 388ff, or Hays, William L. (1963) *Statistics for Psychologists*, Holt, Rinehart & Winston, p. 485f.

## CHAPTER V

### Findings

The research model presented in Chapter III had three major components: i) attributed disensus, ii) system maintenance, and iii) specified personal and system variables. Relationships among these components were also specified viz. between i) attributed disensus and personal and system variables, ii) system maintenance and personal and system variables, and iii) attributed disensus and system maintenance. The present chapter has three sections which deal respectively with the findings resulting from an examination of these sets of relationships. The implications of these findings are considered in the final chapter.

#### Personal and System Variables and Attributed Disensus

In this section the personal and system variables are considered as independent and the attributed disensus as dependent. Initially simple analyses of variance were applied to all seven attributed disensus scores differentiated according to each of the independent variables. The instances where the significance level exceeded .05 level are reported in Table 5.1. The principal items of information contained in Table 5.1. are discussed briefly below.

Table 5.1.

Anova for Personal and System Variables  
on Seven Prototype Disensus Scores\*

	S	U	A	O	SM	SO	GR
Seniority							
Qualifications	.01	.01	.05		.05		.005
Experience				.01			
Specialism		.05					
Age				.01			
Religion		.01					
Marital Status	.05			.01			
Sex			.05		.01		
Race							
School Level				.05			
Training							

\* Only significance levels beyond .05 level are reported; all others are considered non-significant.



Three of the independent variables (Seniority, Race and Length of Training) proved to have no predictive power significant at the .05 level or better. School Level, Age and Experience predicted on only one dimension (Organisation)--at .05, .01 and .01 respectively while Specialism and Religion both predicted on the Utility dimension alone--at .05 and .01 levels respectively. Sex of respondent predicted on two dimensions, Affect (.05) and Subject Matter (.01). Marital Status also predicted on two dimensions, Status (.05) and Organisation (.01). The independent variable with the greatest predictive power was Qualifications which discriminated on five dimensions, Status and Utility at the .01 level, Affect and Subject Matter at the .05 level and on the Gross dimension at .005 level.

The various dimensions displayed different degrees of discrimination. For instance, the Organisation dimension displayed significance with four independent variables (Experience, Age, Marital Status and School Level); Utility discriminated on three independent variables (Qualification, Specialism and Religion); the Affect and Subject Matter dimensions discriminated twice, both with Qualifications and Sex as independent variables; Status discriminated twice also, but with Qualifications and Marital Status as independent variables. The Gross dimension, surprisingly, discriminated only once, with Qualifications as the independent variable, but was significant in this case at .005 level. Sociation did not appear to discriminate at all in this particular analysis.

The fact that different independent variables appear to be associated with differing dimensions and discriminate on differing dimensions at different levels of significance implies that the dimensions of the instrument are relatively independent. In other words, they measure different things. Of further interest however, is the nature of the differences manifested within each independent variable.

Subsequent to the analysis of variance the Scheffé test of multiple group comparisons was used to determine in what ways the scores varied between groups and, further, which intergroup comparisons contributed most to the overall significance detected by the analysis of variance. Subsequent discussion presents the results of these analyses of the findings for each independent variable in turn. Only

relationships which reached the .05 level of significance on the original ANOVA are computed or discussed. In each case two tables contain the results--the first records group means and the second, intergroup comparisons. Each set of tables is followed by brief discussion of the findings.

Qualifications and Disensus

In the analysis four qualification categories were used. They are:

1. Unqualified
2. Undergraduate qualification
3. Bachelor's degrees or equivalent
4. Master's degrees or higher.

Five of the dimensions were detected as displaying significant differences between groups on the simple analysis of variance: Status (.01), Utility (.01), Affect (.05), Subject Matter (.05) and Gross (.005). Intergroup comparisons for each of these dimensions are presented in turn below. The Status dimension is dealt with first.

Qualification and Status Disensus

Tables 5.2.1. and 5.2.2. display, respectively, group means and intergroup comparisons for status scores on the qualifications cross-break.

Table 5.2.1.

Intergroup Differences: Qualifications/Status

Group	$M$	$n$	$\Sigma x$	$\Sigma x^2$	$MS_w$
1 (No Quals)	9.880	42	415	5203	
2 (Undergrad)	9.945	421	4187	57173	29.917
3 (Bachelors)	11.940	165	1971	33169	
4 (Masters)	11.430	69	789	3496	

Table 5.2.2.

Intergroup Comparisons: Qualifications/Status

Comparisons	$\bar{\psi}$	$\bar{\psi}^2$	$\bar{\psi}$	$\bar{\psi}/\bar{\psi}^2$	P
A 1-2	.065	.778	.882	.074	
B 1-3	2.060	.897	.947	2.175	
C 1-4	1.550	1.238	1.112	1.394	
D <u>2-3</u>	1.995	.239	.488	4.088	.01
E 2-4	1.485	.479	.692	2.146	
F 3-4	.510	.599	.773	.660	
G 1-(2 + 3 + 4)	1.225	.788	.887	1.381	
H <u>(1 + 2)-(3 + 4)</u>	1.772	.349	.590	3.003	.05
I 1 -(3 + 4)	1.805	.865	.930	1.941	
J <u>2 -(3 + 4)</u>	1.704	.224	.473	3.679	.01

.95F = 2.792

.99F = 3.367

From Table 5.2.1. it can be seen that, although differences between group means are not large, the group mean increases with higher qualifications. The results of the Scheffé test presented in Table 5.2.2. indicate that only three of the intergroup comparisons were significant beyond the .05 level. These were:

1. Between Group 2 (Undergraduate) and Group 3 (Bachelors)
2. Between Groups 1 and 2 combined (Unqualified and Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters)
3. Between Group 2 (Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters).

These results indicate that the greatest contribution to the overall significance was made by comparisons including Groups 2 (Undergraduate) and 3 (Bachelors), and those possessing Graduate qualifications exhibited significantly more disensus over Status than those possessing Undergraduate qualifications. These bring the hypothesised relationship into question. However, it is not certain, from the lack of continuous variation between groups, that the converse of the hypothesis is necessarily viable.

# Qualifications and Utility Disensus

Tables 5.3.1. and 5.3.2. display, respectively, group means and intergroup comparisons for qualifications as the independent variable and Utility dimension as the dependent variable.

Table 5.3.1.

Intergroup Differences: Qualifications/Utility

Group	$N$	$n$	$\Sigma x$	$\Sigma x^2$	$MS_w$
1 (No Quals)	5.166	42	496	7046	
2 (Undergrad)	5.684	421	2393	18803	14.101
3 (Bachelors)	6.690	165	1104	9942	
4 (Masters)	6.202	69	428	3496	

Table 5.3.2.

Intergroup Comparisons: Qualifications/Utility

Comparisons	$\hat{\psi}$	$\hat{\psi}^2$	$\hat{\psi}^2/n$	$\hat{\psi}^2/c$	$P$
A 1-2	.518	.369	.607	.853	
B 1-3	1.524	.423	.650	2.345	
C 1-4	1.436	.536	.732	1.962	
D <u>2-3</u>	1.006	.113	.336	2.994	.05
E 2-4	.918	.226	.475	1.933	
F 3-4	.088	.282	.531	.166	
G 1-(2 + 3 + 4)	1.159	.372	.610	1.900	
H <u>(1 + 2)-(3 + 4)</u>	1.221	.162	.402	3.037	.05
I 1 -(3 + 4)	1.480	.408	.639	2.316	
J <u>2 -(3 + 4)</u>	.962	.099	.314	3.064	.05

$$.95F = 2.792$$

$$.99F = 3.367$$

From Table 5.3.1. it can be seen that increases in group means occur with increases in levels of qualifications. From the intergroup comparisons presented in Table 5.3.2. three comparisons can be seen to be significant beyond the .05 level:

1. Between Group 2 (Undergraduate) and Group 3 (Bachelors)
2. Between Groups 1 and 2 combined (Unqualified and Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters)

3. Between Group 2 (Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters).

As with the Status dimension the greatest contribution to overall significance was made by comparisons including Groups 2 (Undergraduate) and 3 (Bachelors). Similarly, the group possessing graduate qualifications exhibited more disensus over Status than the group possessing undergraduate qualification. These results cast doubt on the hypothesised relationship which was not confirmed.

Qualifications and Affect Disensus

Tables 5.4.1. and 5.4.2. display, respectively, group means and intergroup comparisons for qualifications as the independent variable and Affect disensus as the dependent variable.

Table 5.4.1.

Intergroup Differences: Qualifications/Affect

Group	M	n	$\Sigma x$	$\Sigma x^2$	MS <sub>w</sub>
1 (No Quals)	11.8	42	496	7046	
2 (Undergrad)	11.35	421	4781	69861	44.766
3 (Bachelors)	12.98	165	2142	38326	
4 (Masters)	13.04	69	900	15488	

Table 5.4.2.

Intergroup Comparisons: Qualifications/Affect

Comparison	$\bar{y}$	$\frac{\Sigma x^2}{n}$	$\frac{\Sigma x^2}{n}$	$\frac{\Sigma x^2}{n}$	P
A 1-2	.450	1.172	1.082	.416	
B 1-3	1.180	1.337	1.156	1.021	
C 1-4	1.240	1.691	1.300	.952	
D 2-3	1.630	.358	.598	1.701	
E 2-4	1.690	.755	.808	1.947	
F 3-4	.060	.890	.943	.063	
G 1-(2 + 3 + 4)	.657	1.157	1.075	.610	
H (1 + 2)-(3 + 4)	1.435	.534	.730	1.960	
I 1 -(3 + 4)	1.210	1.291	1.136	1.065	
J 2 -(3 + 4)	1.669	.312	.558	2.975	.05

.95F = 2.792

.99F = 3.367

The Group means shown in Table 5.4.1. increase with increases in qualifications, thus not confirming the hypothesis. Intergroup comparisons presented in Table 5.4.2. indicate that only one comparison was significant at the .05 level: that between Groups 2 (Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters). There is again a tendency for the hypothesised relationship to be reversed with graduate groups showing significantly more disensus over Affect than the undergraduate group.

### Qualifications and Subject Matter Disensus

Tables 5.5.1. and 5.5.2. display, respectively, group means and intergroup comparisons for qualifications as the independent variable and Subject Matter Disensus considered as the dependent variable.

Table 5.5.1.

Intergroup Differences: Qualifications/Subject Matter

Group	$M$	$n$	$\sum x$	$\sum x^2$	$MS_w$
1 (No Quals)	6.142	42	258	2254	
2 (Undergrad)	5.997	421	2525	21319	16.606
3 (Bachelors)	6.709	165	1107	9855	
4 (Masters)	7.231	69	499	5861	

Table 5.5.2.

Intergroup Comparisons: Qualifications/Subject Matter

Comparison	$\hat{\psi}$	$\frac{\hat{\psi}^2}{n}$	$\frac{\hat{\psi}^2}{n}$	$\frac{\hat{\psi}^2}{n}$	$P$
A 1-2	.145	.432	.657	.221	
B 1-3	.567	.498	.705	.804	
C 1-4	1.089	.631	.794	1.372	
D 2-3	.712	.133	.364	1.956	
E 2-4	1.234	.280	.529	2.332	
F 3-4	.522	.332	.576	.906	
G 1 - (2 + 3 + 4)	.504	.399	.631	.799	
H (1 + 2) - (3 + 4)	.900	.764	.874	1.030	
I 1 - (3 + 4)	.828	.482	.694	1.193	
J 2 - (3 + 4)	.973	.116	.340	2.862	.05

$$.95F = 2.792$$

$$.99F = 3.367$$

The group means in Table 5.5.1. indicate a slight but not completely consistent tendency to rise with higher qualifications. Once again, because of the lack of significance between groups taken in sequence, this tendency cannot be taken as the converse of the hypothesised relationship, although, clearly, the hypothesis that higher Qualifications were associated with lower levels of dissensus was not confirmed.

Intergroup comparisons in Table 5.5.2. indicate that only one comparison reaches the .05 level of significance: between Group 2 (Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters). Those possessing graduate qualifications appear therefore to express greater dissensus over Subject Matter than those with undergraduate qualifications.

#### Qualifications and Gross Dissensus

Tables 5.6.1. and 5.6.2. present, respectively, the group means and intergroup comparisons between Qualifications as the independent variable and Gross Dissensus as the dependent variable.

Table 5.6.1.

Intergroup Differences: Qualifications/Gross Dissensus

Group	$M$	$n$	$\Sigma x$	$\Sigma x^2$	$\Sigma S_w$
1 (No Quals)	47.47	42	1994	57173	
2 (Undergrad)	47.24	421	19892	1088350	314.927
3 (Bachelors)	53.49	165	8826	547548	
4 (Masters)	53.07	69	3662	226948	

The group means presented in Table 5.6.1. indicate a tendency for means to rise with qualifications thus modifying the hypothesised relationship that the higher the qualifications the less the gross dissensus.



Table 5.6.2.

Intergroup Comparisons: Qualifications/Gross Disensus

Comparison	$\bar{\psi}$	$\frac{\bar{\psi} - \bar{\psi}_i}{\sqrt{\frac{\sigma^2}{n_i}}}$	$\frac{\bar{\psi} - \bar{\psi}_j}{\sqrt{\frac{\sigma^2}{n_j}}}$	$\frac{\bar{\psi} - \bar{\psi}_{ij}}{\sqrt{\frac{\sigma^2}{n_{ij}}}}$	P
A 1-2	.230	8.818	2.861	.080	
B 1-3	6.020	9.488	3.073	1.959	
C 1-4	5.600	11.967	3.459	1.619	
D <u>2-3</u>	6.250	2.519	1.587	3.938	.01
E 2-4	5.830	5.039	2.244	2.598	
F 3-4	.420	6.299	2.509	.148	
G 1-(2 + 3 + 4)	3.797	8.188	2.861	1.327	
H <u>(1 + 2)-(3 + 4)</u>	5.925	3.779	1.943	3.049	.05
I <u>1</u> <u>-(3 + 4)</u>	5.810	1.575	1.254	4.633	.01
J <u>2</u> <u>-(3 + 4)</u>	6.040	2.205	1.484	4.070	.01
				.95F = 2.792	
				.99F = 3.367	

The significance levels of comparisons presented in Table 5.6.2. indicate four comparisons significant beyond the .05 level:

1. Between Group 2 (Undergraduate) and Group 3 (Bachelors)
2. Between Groups 1 and 2 combined (No Qualifications and Undergraduates) and Groups 3 and 4 combined (Bachelors and Masters)
3. Between Group 1 (No Qualification) and Groups 3 and 4 combined (Bachelors and Masters)
4. Between Group 2 (Undergraduate) and Groups 3 and 4 combined (Bachelors and Masters).

For Qualifications considered as the independent variable Table 5.7.1. presents a summary of the group means on those dimensions identified as displaying significant differences.

Table 5.7.1.

Summary of Group Means: Qualifications

Group	Means	S	U	A	O	SM	SO	GR
1 (No Quals)		9.880	5.166	11.8		6.142		47.47
2 (Undergrad)		9.945	5.684	11.35		5.997		47.24
3 (Bachelors)		11.940	6.690	12.98		6.709		53.49
4 (Masters)		11.430	6.202	13.04		7.231		53.07

It can be seen from the group means that in all cases there is a tendency for disensus to increase with level of qualification. The hypothesised relationships must therefore be rejected in all cases. Although there is a tendency towards the converse of the hypothesised relationships it should also be noted that the most significant comparisons occur when combined categories are compared. Thus the differences indicated as significant may to some extent be a result of the statistical manipulations employed.

Table 5.7.2.

Summary of Intergroup Comparisons: Qualifications

Comparison	S	U	A	O	SM	SO	GR
A 1-2							
B 1-3							
C 1-4							
D <u>2-3</u>	.01	.05					.01
E 2-4							
F 3-4							
G 1-(2 + 3 + 4)							
H <u>(1 + 2)-(3 + 4)</u>	.05	.05					.05
I <u>1 -(3 + 4)</u>							.01
J <u>2 -(3 + 4)</u>	.01	.05	.05		.05		.01

Table 5.7.2. presents a summary of the intergroup comparison levels of significance. This table indicates that three comparisons provided the majority of significant differences, comparisons D. H. and J. Each of these comparisons included comparisons between those with graduate qualifications and those with undergraduate qualifications.

It would appear therefore, that the best predictors of disensus are those associated with graduate status. As might be expected, the Gross disensus scores proved the most highly significant indicators of differences between groups, followed by Status and then Utility and then Subject Matter and Affect. The Organisation and Sociation dimensions apparently offer little, if any, properties of discrimination when the population is differentiated according to qualifications.

Experience and Disensus

The experience categories used in the analysis were:

1. Between 1 and 9 years
2. Between 10 and 19 years
3. More than 20 years.

Of the dependent variables only Organisation displayed significant differences between groups on the analysis of variance. The inter-group comparisons on this dimension are presented below.

Experience and Organisation Disensus

Tables 5.8.1. and 5.8.2. display, respectively, the group means and intergroup comparisons for Experience considered as the independent variable and Organisation disensus as the dependent variable.

Table 5.8.1.

Intergroup Differences: Experience/Organisation

Group	$M$	$n$	$\sum x$	$\sum x^2$	$MS_w$
1 (1-9 years)	6.942	346	2402	22446	15.247
2 (10-19 years)	6.226	225	1401	12235	
3 (20 years and over)	5.747	123	707	5363	

Table 5.8.2.

Intergroup Comparisons: Experience/Organisation

Comparison	$\hat{\psi}$	$\hat{\psi} - \hat{\psi}_2$	$\hat{\psi} - \hat{\psi}_3$	$\hat{\psi} - \hat{\psi}_{2+3}$	P
A 1-2	.716	.061	.246	2.911	.05
B 1-3	1.195	.168	.409	2.922	.05
C 2-3	.479	.183	.427	1.122	
D 1-(2 + 3)	.955	.091	.301	3.173	.01
E (1 + 2)-3	.837	.152	.389	2.152	
				.95 F = 2.499	
				.99 F = 3.036	

Inspection of the group means (Table 5.8.1.) indicates that group means decrease with experience, thus supporting the hypothesised relationship. Table 5.8.2. indicates that three intergroup comparisons proved significant beyond the .05 level:

1. Between Group 1 (1-9 years) and Group 2 (10-19 years)
2. Between Group 1 (1-9 years) and Group 3 (over 20 years)
3. Between Group 1 (1-9 years) and Groups 2 and 3 combined (over 10 years).

Such comparisons would seem to indicate that those with less than ten years experience exhibit significantly more disensus over Organisation than their older colleagues, thus supporting the hypothesis that greater Experience is associated with lesser Disensus.

#### Age and Disensus

Three age categories were used:

1. Under 29
2. Between 30 and 49
3. Over 50.

As with the previous independent variable 'Experience', only 'Organisation' reached the .05 level of significance. The intergroup comparisons on this dimension are presented below.

#### Age and Organisation Disensus

Tables 5.9.1. and 5.9.2. present, respectively, the group means and intergroup comparisons for Age considered as the independent variable and Organisation disensus as the dependent variable.

Table 5.9.1.

Intergroup Differences: Age/Organisation

Group	$M$	$n$	$\Sigma x$	$\Sigma x^2$	$MS_w$
1 (1-29)	7.055	236	1665	15229	15.568
2 (30-49)	6.366	379	2413	21627	
3 (50+)	5.565	76	423	3319	

Table 5.9.2.

Intergroup Comparisons: Age/Organisation

Comparison	$\hat{\mu}$	$\hat{\sigma}^2$	$\hat{\mu}_1 - \hat{\mu}_2$	$\hat{\sigma}_{\hat{\mu}_1 - \hat{\mu}_2}^2$	P
A 1-2	.689	.107	.327	2.107	
B 1-3	1.490	.271	.520	2.865	.01
C 2-3	.801	.246	.495	1.618	
					.95F = 2.280
					.99F = 2.747

The group means presented in Table 5.9.1. indicate that less disensus over Organisation is displayed by the old than the young. Intergroup comparisons presented in Table 5.9.2. support the significance of this trend but only for comparison between Group 1 (under 29) and Group 3 (over 50). The level of significance of this relationship is however, at the .01 level and the comparison between Groups 1 and 2 approaches significance at the .05 level. It appears then that the old experience less disensus than the young with regard to Organisation, thus supporting the hypothesised relationship. Because of the logical relationship between age and experience, the decrease of disensus with increases in both variables is mutually supportive.

Specialism and Disensus

Four specialism categories were used:

1. No specialism
2. Arts subjects
3. Science subjects
4. Vocational and special services.

Of the dependant variables only the Utility dimension approached the .05 level of significance or better in the analysis of variance. The

intergroup comparisons are presented below.

### Specialism and Utility Disensus

Tables 5.10.1. and 5.10.2. present, respectively, group means and intergroup comparisons for Specialism considered as the independent variable and Utility disensus as the dependent variable.

Table 5.10.1.

Intergroup Differences: Specialism/Utility

Group	$M$	$n$	$\Sigma x$	$\Sigma x^2$	$MS_w$
1 (No Specialism)	5.823	329	1916	14996	
2 (Arts)	6.126	134	821	6795	12.411
3 (Science)	6.766	90	609	5423	
4 (Vocational)	5.503	127	699	5357	

Table 5.10.2.

Intergroup Comparisons: Specialism/Utility

Comparison	$\hat{\psi}$	$\hat{\psi}^2$	$\hat{\psi}^2$	$\hat{\psi}^2$	$P$
A 1-2	.303	.124	.352	.861	
B 1-3	.943	.174	.417	2.261	
C 1-4	.320	.137	.370	.865	
D 2-3	.640	.223	.472	1.356	
E 2-4	.623	.186	.431	1.445	
F 3-4	1.263	.236	.485	2.604	
G 1-(2 + 3)	.623	.099	.314	1.984	
H 1 -(2 + 3 + 4)	.309	.074	.272	1.136	
I 4 -(2 + 3)	.943	.161	.401	2.352	
J 4 -(1 + 2 + 3)	.735	.124	.352	2.088	
				.95F = 2.792	
				.99F = 3.367	

Table 5.10.1. presents the group means, indicating that Science specialists display the greatest disensus, Arts teacher the next greatest, Non specialists next and Vocational specialists least. The comparison between the highest and lowest degrees of disensus (Table 5.10.2. comparison F) comes nearest to significance at .05

but does not reach that level. Similarly, the contrast (H) between non-specialists (Group 1) and all specialists combined (Groups 2, 3 and 4) fails to reach the .05 level of significance. The hypothesis that specialists exhibit greater disensus than non-specialists is not, therefore, confirmed. In fact, none of the planned or post hoc comparisons display significance at the required level, despite the ANOVA of .05. This can be accounted for by the fact that ANOVA is a more comprehensive and sensitive statistic than the Scheffé test and is likely, in marginal cases, to indicate higher levels of significance.

#### Religion and Disensus

For religious affiliation a fourfold categorisation was employed:

1. Catholic
2. Anglican
3. Other Protestant
4. None/Agnostic/Atheist etc.

Only the Utility dimension of the dependent variables reached the .05 level of significance as a result of the analysis of variance. The intergroup comparisons on this dimension are presented below.

#### Religion and Utility Disensus

Tables 5.11.1. and 5.11.2. present, respectively, group means and intergroup comparisons for Religious Affiliation considered as the independent variable and disensus over Utility as the dependent.

Table 5.11.1.

Intergroup Differences: Religion/Utility

Group	M	n	$\Sigma x$	$\Sigma x^2$	MS <sub>w</sub>
1 (Catholic)	5.420	107	580	4364	
2 (Anglican)	5.852	190	1112	8884	
3 (Other Protestant)	5.690	242	1377	10623	12.679
4 (No Religion)	6.839	106	725	6753	



Table 5.11.2.

Intergroup Comparisons: Religion/Utility

Comparison	$\hat{\psi}$	$\hat{\psi}_1 - \hat{\psi}_2$	$\hat{\psi}_1 - \hat{\psi}_3$	$\hat{\psi}_1 - \hat{\psi}_4$	P
1-2	.432	.178	.421	1.026	
1-3	.270	.165	.406	.665	
<u>1-4</u>	1.419	.228	.477	2.975	.05
2-3	.162	.114	.377	.481	
2-4	.987	.178	.421	2.344	
<u>3-4</u>	1.149	.165	.406	2.830	.05
1-(2 + 3)	.351	.139	.372	.944	
<u>(2 + 3)-4</u>	1.068	.139	.372	2.871	.05
<u>(1 + 2 + 3)-4</u>	1.185	.139	.372	3.185	.05
				.95F = 2.792	
				.99F = 3.367	

Table 5.11.1. indicates that only one of the four means differed greatly, that of Group 4 (No Religion). Table 5.11.2. indicates that only comparisons involving Group 4 proved significant at the .05 level. These four comparisons were:

1. Between Group 1 (Catholic) and Group 4 (No Religion)
2. Between Group 3 (Other Protestant) and Group 4 (No Religion)
3. Between Groups 2 and 3 combined (Catholic and Anglican) and Group 4 (No Religion)
4. Between Groups 1, 2 and 3 combined (Catholic, Anglican and other Protestant) and Group 4 (No Religion).

These results would seem to indicate that there is little distinction to be made along the hypothesized Catholic/Protestant dichotomy, the only significant differences resulting from the group labelled No Religion. One rather surprising factor was the size of this group (nearly 1 in 6 of our sample).

Marital Status and Disensus

Marital Status made use of a three fold categorisation:

1. Single
2. Married
3. Widowed, Separated or Divorced.

Two dimensions of the dependent variable reached the .05 level of

significance as a result of the analysis of variance: Status and Organisation. The intergroup comparisons for these two dimensions are presented below.

### Marital Status and Status Disensus

Tables 5.12.1. and 5.12.2. present, respectively, group means and intergroup comparisons for Marital Status considered as the independent variable and disensus over Status as the dependent.

Table 5.12.1.

Intergroup Differences: Marital Status/Status

Group	M	n	$\sum x$	$\sum x^2$	MS <sub>w</sub>
1 (Single)	9.906	204	2021	25999	
2 (Married)	10.670	459	4901	74221	42.434
3 (Separated/Divorced)	13.330	27	360	6212	

Table 5.12.2.

Comparison	$\hat{\psi}$	$\hat{\sigma}^2_{\hat{\psi}}$	$\hat{\psi}^2$	$\hat{\psi}^2/\hat{\sigma}^2_{\hat{\psi}}$	P
1-2	.764	.297	.544	1.404	
1-3	3.424	1.782	1.334	2.548	.05
2-3	2.660	1.655	1.286	2.098	
1-(2 + 3)	2.094	.637	.798	2.624	.05
(1 + 2)-3	3.042	1.655	1.286	2.365	

$$.95F = 2.499$$

$$.99F = 3.036$$

From Table 5.12.1. it can be seen that the group mean for married respondents is higher than that for single respondents, thus supporting the hypothesised relationship. However, the group mean for the third group (Separated and Divorced) is considerably higher than either of the other means. Subsequent analysis presented in Table 5.12.2. indicates that the only significant differences at .05 level are comparisons which include Group 3:

1. Between Group 1 (Single) and Group 3 (Separated and Divorced)
2. Between Group 1 (Single) and Groups 2 and 3 combined (Married, Separated and Divorced).

Comparisons between Single and Married groups did not approach the .05 level of significance. Neither did comparison between Married and Separated or Divorced groups. The hypothesis was therefore not confirmed at an acceptable level, the only significant differences occurring in comparisons including Group 3 (Separated or Divorced).

#### Marital Status and Organisation Disensus

Tables 5.13.1. and 5.13.2. present, respectively, the group means and intergroup comparisons for Marital Status considered as the independent variable and disensus over Organisation as the dependent.

Table 5.13.1.

Intergroup Differences: Marital Status/Organisation

Group	$M$	$n$	$\sum x$	$\sum x^2$	$MS_w$
1 (Single)	7.102	204	1449	13867	
2 (Married)	6.180	459	2837	24211	15.574
3 (Separated/Divorced)	7.703	27	208	1942	

Table 5.13.2.

Intergroup Comparisons: Marital Status/Organisation

Comparison	$\hat{\psi}$	$\hat{\sigma}^2_{\hat{\psi}}$	$\hat{G} - \hat{\psi}$	$\hat{\psi} / \hat{\sigma}_{\hat{\psi}}$	P
A 1-2	.922	.109	.330	2.794	.05
B 1-3	.601	.654	.808	.774	
C 2-3	1.523	.607	.779	1.955	
D 1-(2 + 3)	.160	.156	.394	.406	
E (1 + 2)-3	1.062	.607	.779	1.363	
				.95F = 2.499	
				.99F = 3.036	

From Table 5.13.1. it can be seen that the mean for married respondents is lower than that for single respondents, the direction of the relationship being consistent with the hypothesised relationship. Group 3 (Separated or Divorced) shows a higher mean than either of the other groups. Table 5.13.2. confirms only one of these comparisons as significant: that between Group 1 (Single) and Group 2 (Married) . The data therefore confirm the hypothesised relationship , as Married

respondents display significantly less disensus over Organisation than single respondents.

### Sex and Disensus

When categorised on the basis of sex as the independent variable, two dimensions of the dependent variable reached the .05 level of significance on the analysis of variance: Affect and Subject Matter. The intergroup comparisons on these dimensions are presented below.

### Sex and Affect Disensus

Tables 5.14.1. and 5.14.2. present, respectively, the group means and intergroup comparisons for Sex as the independent variable and Affect disensus as the dependent variable.

Table 5.14.1.

Intergroup Differences: Sex/Affect

Group	M	n	$\Sigma x$	$\Sigma x^2$	MS <sub>w</sub>
1 (Male)	11.34	326	3699	56629	44.728
2 (Female)	12.44	368	4581	73499	

Table 5.14.2.

Intergroup Comparisons: Sex/Affect

Comparison	$\hat{\psi}$	$\frac{\hat{\sigma}^2}{\hat{\psi}}$	$\frac{\hat{\sigma}^2}{\hat{\psi}}$	$\frac{\hat{\psi}^2}{\hat{\sigma}^2}$	P
<u>1-2</u>	1.100	.268	.517	2.128	.05
				.95F = 1.959	
				.99F = 2.574	

The group means presented in Table 5.14.1. indicate that the female respondents exhibit greater disensus over Affect than the male respondents thus reversing the hypothesised relationship. The level of significance reached the .05 level (Table 5.14.2.). It must therefore be concluded that female respondents display significantly more disensus over Affect than male respondents.

### Sex and Subject Matter Disensus

Table 5.15.1. and 5.15.2. present, respectively, group means and

intergroup comparisons for Sex as the dependent variable and disensus over Subject Matter as the dependent variable.

Table 5.15.1.

Intergroup Differences: Sex/Subject Matter

Group	M	n	$\sum x$	$\sum x^2$	MS <sub>w</sub>
1 (Male)	6.696	326	2183	20613	16.354
2 (Female)	5.913	368	2176	18254	

Table 5.15.2.

Intergroup Comparisons: Sex/Subject Matter

Comparison	$\hat{\psi}$	$\hat{\sigma}^2_{\hat{\psi}}$	$\hat{\sigma}^2_{\hat{\psi}}$	$\hat{\psi}/\hat{\sigma}_{\hat{\psi}}$	P
<u>1-2</u>	.783	.098	.313	2.502	.05
				.95F = 1.959	
				.99F = 2.574	

The group mean for male respondents presented in Table 5.15.1. is higher than that for female respondents. The direction of the relationship is, therefore that predicted by the hypothesis. Table 5.15.2. shows the relationship to be significant at the .05 level. The hypothesis that males will experience more disensus over Subject Matter than females is therefore confirmed.

#### Grade Level and Disensus

The final categorisation to display significance as a result of the analysis of variance was that of Grade Level. Two categories were employed:

1. Primary Levels
2. Secondary Levels.

Only one dimension proved significant: Subject Matter. This is reported below.

Table 5.16.1.

Intergroup Differences: Level/Subject Matter

Group	$M$	$n$	$\sum x$	$\sum x^2$	$MS_w$
1 (Primary)	5.955	290	1727	14309	
2 (Secondary)	6.545	255	1669	15527	15.491

Table 5.16.2.

Intergroup Comparisons: Level/Subject Matter

Comparison	$\hat{\psi}$	$\frac{\sum \hat{\psi}^2}{n}$	$\frac{\sum \hat{\psi}}{n}$	$\frac{\hat{\psi}^2}{\sum \hat{\psi}}$	P
<u>1-2</u>	.590	.108	.328	1.799	.05
				.95F = 1.959	
				.99F = 2.574	

The group means displayed in Table 5.16.1. confirm the hypothesis that the higher the level the greater the disensus. Table 5.16.2. indicates that the difference between groups is significant at the .05 level. The hypothesis is therefore supported and secondary respondents shown to display greater disensus over Subject Matter than primary respondents.

### Summary

At this point several of the findings stand out:

- i) Only fourteen of the 77 hypothesised relationships reached the .05 level of significance although several others approached it.
- ii) The independent variable with greatest predictive power was Qualifications which displayed consistently higher degrees of disensus associated with higher qualification levels over the dimensions of Status, Utility, Affect, Subject Matter and Gross.
- iii) The dependent variable displaying the greatest modification as a result of variation in independent variables was Organisation disensus in which a decrease resulted from increases in both Age and Experience. School level and Marital Status also predicted to differing disensus over Organisation.
- iv) In the case of the independent variables of Religion and Marital Status, although the predicted relationships did not

prove significant, one particular sub-group displayed, in each case, considerable predictive power.

#### Personal and System Variables and System Maintenance

For this section of the analysis Personal and System variables were considered as independent and the two measures of System Maintenance (Job Satisfaction and Job Retention) as dependent. As the chi square statistic was employed the estimation of expected frequencies is an issue of some importance. The procedure followed was to calculate the proportion of the total sample falling into each of the independent variable categories. A null hypothesis was then employed which predicted that the frequencies occurring in each of the independent variable categories for each sub-sample distinguished according to dependent variable, would be proportionally the same as for the total sample. Any deviation from these expected frequencies could then be taken as an indication of non-random effects.

The results of these analyses are presented in summary form in Table 5.17.

Table 5.17.

#### Summary of Results of Chi-Square Tests:

##### Personal and System Variables and System Maintenance.

Independent Variable	<u>Job Satisfaction</u>			<u>Job Retention</u>		
	F	df.	p.	F	df.	p.
Personal: Race	3.790	8		5.592	8	
<u>Sex</u>	8.520	4		54.490	4	.001
<u>Marital Status</u>	78.300	8	.001	6.379	8	
<u>Religion</u>	29.040	12	.01	36.260	12	.001
<u>Age</u>	22.560	8	.01	104.456	8	.001
System: School Level	1.084	4		.696	4	
Training	7.241	8		5.557	8	
Specialism	6.981	12		16.244	12	
<u>Experience</u>	20.238	8	.01	89.258	8	.001
Qualifications	5.421	8		10.364	8	
<u>Seniority</u>	24.757	8	.01	77.397	8	.001

It can be seen from Table 5.17. that for Job Satisfaction as the dependent variable three Personal variables (Marital Status, Religion



and Age) and two System Variables (Experience and Seniority) showed predictive power. For Job Retention as the dependent variable three Personal Variables (Sex, Religion and Age) and two System Variables (Experience and Seniority) showed significance. The following discussion of significant findings is ordered first by dependent variable and then by independent variable. In each case the frequency table from which the chi-squares were calculated is presented and then briefly interpreted.

### Job Satisfaction

Five independent variables predicted to job satisfaction: Marital Status, Religion, Age, Experience and Seniority. The nature of the relationship in each case is examined below.

### Job Satisfaction and Marital Status

Marital status was associated with Job Satisfaction at the .001 level. The frequency table on which this result is based is presented in Table 5.18.

Table 5.18.

Expected and Observed Frequencies: Job  
Satisfaction and Marital Status

Job Satisfaction		Marital Status			Total
		Single	Married	Separated/ Divorced	
Very Satisfied	1.	43* 28** -15***	98 89 -9	12 37 +25	154
Moderately Satisfied	2.	95 106 + 11	217 214 -3	27 15 -12	335
Neither	3.	21 27 + 6	50 47 -3	6 2 - 4	76
Mod. Dissatisfied	4.	29 24 - 5	65 76 +11	8 1 - 7	101
Very Dissatisfied	5.	7 6 - 1	16 18 + 2	2 1 - 1	25
Total		191	444	56	691

\* Expected Frequency

\*\* Observed Frequency

\*\*\*  $F_O - F_E$

Inspection of Table 5.18. indicates two abnormalities in observed frequencies. Firstly, a much higher number of separated and divorced respondents than expected indicated that they were very satisfied. Secondly, the tendency for married respondents was for the distribution of observed frequencies to indicate greater dissatisfaction than was predicted by the null hypothesis. Interpretation of the frequencies for Single respondents is difficult but may indicate a slightly higher degree of satisfaction than predicted. The hypothesis that Married respondents would indicate higher levels of Job Satisfaction was not confirmed.

### Job Satisfaction and Religion

Religion was associated with Job Satisfaction at the .01 level. The frequency table from which this chi-square was calculated is presented in Table 5.19.

Table 5.19.

Expected and Observed Frequencies:

Job Satisfaction and Religion

Job Satisfaction		Religion				Totals
		Catholic	Anglican	Other Pr.	None	
Very Satisfied	1.	25 + 8 33	43 - 1 42	56 - 3 53	24 - 4 20	148
Moderately Satisfied	2.	53 - 10 43	90 + 8 98	118 + 9 127	50 - 7 43	311
Neither	3.	11 - 2 9	20 + 3 23	26 + 1 27	11 - 2 9	68
Moderately Dissatisfied	4.	16 + 3 19	27 - 6 21	36 - 5 31	15 + 9 24	95
Very Dissatisfied	5.	4 - 1 3	7 - 1 6	9 - 5 4	4 + 6 10	23
Totals		107	190	242	106	645

If, in Table 5.19., those expressing some degree of satisfaction are compared with those expressing some degree of dissatisfaction, two trends become apparent:

- 1) slightly more Anglicans and Other Protestants express satisfaction than dissatisfaction.

ii) considerably more respondents in the No Religion category express dissatisfaction than was predicted.

For the Catholic group little, if any, variation can be observed.

Overall, these results indicate that teachers with no religious affiliation are likely to express considerably more dissatisfaction with their job than either Catholics, or Protestants who expressed slightly greater satisfaction than the total sample. The prediction of greater job satisfaction of Protestants was only marginally supported.

### Job Satisfaction and Age

The third of the Personal Variables, Age, showed significance at the .01 level. The chi-square table is presented in Table 5.20.

Table 5.20.

Expected and Observed Frequencies:

Job Satisfaction and Age

Job Satisfaction		Age						Totals
		- 29			30 - 49		50 +	
Very Satisfied	1.	52 37	-15		84 93	+ 9	17 23	+ 6 153
Moderately Satisfied	2.	114 108	- 6		186 195	+ 9	37 35	- 2 338
Neither	3.	25 31	+ 6		41 36	- 5	8 8	0 75
Moderately Dissatisfied	4.	34 48	+14		56 46	-10	11 7	- 4 101
Very Dissatisfied	5.	8 12	+ 4		13 9	- 4	3 3	0 24
Totals		236			379		76	691

It can be seen from Table 5.20. that when those expressing some degree of satisfaction are compared with those expressing some degree of dissatisfaction the association of youth with dissatisfaction and age with relative satisfaction becomes obvious. There are, for instance, much larger numbers of the under 29 age group expressing moderate to considerable dissatisfaction and many less in the moderately to very satisfied categories. Within the 30 - 49 age group the tendency

is reversed and this trend is continued and reinforced in the 50 + age group. The data therefore support the hypothesised relationship between age and job satisfaction.

Job Satisfaction and Experience

The first of the two System Variables with significance above the .05 level is Experience. The chi-square distribution is presented in Table 5.21.

Table 5.21.

Expected and Observed Frequencies:  
Job Satisfaction and Experience

Job Satisfaction		Experience			Totals
		- 9	10 - 19	20 +	
Very Satisfied	1.	76 61	-15 52	50 + 2 40	27 + 13 153
Moderately Satisfied	2.	169 166	- 3 116	110 + 6 57	60 - 3 339
Neither	3.	38 41	+ 3 23	25 - 2 12	13 - 1 76
Moderately Dissatisfied	4.	51 65	+14 28	33 - 5 9	18 - 9 102
Very Dissatisfied	5.	12 13	+ 1 6	8 - 2 5	4 + 1 24
Totals		346	225	123	694

As might be expected, the pattern for Experience is similar to that for Age. From Table 5.21. it can be seen that more less experienced teachers express dissatisfaction and more experienced teachers express various levels of satisfaction. The positive relationship between experience and job satisfaction would therefore seem established for our sample, thus confirming the hypothesis.

Job Satisfaction and Seniority

The second of the System Variables with predictive power (at the .01 level) is Seniority. The chi square distribution is presented in Table 5.22.

Table 5.22.

Expected and Observed Frequencies:  
Job Satisfaction and Seniority

Job Satisfaction		Seniority			Totals	
		High	Medium	Low		
Very Satisfied	1.	21 36	21 17	113 101	+15 -12	154
Moderately Satisfied	2.	45 43	45 53	245 239	- 2 + 8 - 6	335
Neither	3.	10 8	10 8	56 61	- 2 + 5	77
Moderately Dissatisfied	4.	14 5	14 13	75 84	- 9 - 1 + 9	102
Very Dissatisfied	5.	3 1	3 2	18 21	- 2 - 1 + 3	24
Totals		93	93	506		692

It can be seen from the Table that those with high levels of seniority are over-represented in the satisfied categories while those with lower levels of seniority are over-represented in the dissatisfied categories. The association pointed to by the .01 significance level would therefore appear to indicate positive relationship between seniority and satisfaction. This result is logically consistent with the positive relationships established between age and satisfaction and experience and satisfaction, and consistent with the hypothesised relationship.

#### Job Retention

Five independent variables predicted to job retention: Sex, Religion, Age, Experience and Seniority. The nature of each relationship is briefly examined below.

#### Job Retention and Sex

The relationship between Job Retention and Sex of respondent was significant at the .001 level. The chi-square distribution is presented in Table 5.23.

Table 5.23.

Expected and Observed Frequencies:  
Job Retention and Sex.

Job Retention		Sex		Totals
		Male	Female	
Very Unlikely to Leave	1.	69 + 13 82	78 -13 65	147
Quite Unlikely to Leave	2.	63 + 22 85	71 -22 49	134
Neither	3.	71 + 7 78	80 - 7 73	151
Quite Likely to Leave	4.	52 - 9 43	59 + 9 68	111
Very Likely to Leave	5.	70 - 34 36	79 +34 113	149
Totals		324	368	692

It can be seen from Table 5.23. that Women are considerably over-represented in the Likely to Leave categories, while Men were over-represented in the Unlikely to Leave categories. This would seem to indicate that men are more committed to teaching as a career than women.

#### Job Retention and Religion

The relationship between Job Retention and Religion was significant at the .001 level. The chi-square distribution is presented in Table 5.24.

Table 5.24.

Expected and Observed Frequencies:

Job Retention and Religion

Job Retention		Religion				Totals
		Catholic	Anglican	Other Pr.	None	
Very Unlikely to Leave	1.	24 +10 34	42 - 3 39	54 + 2 56	24 -10 14	143
Quite Unlikely to Leave	2.	20 + 8 28	36 + 1 37	46 - 6 40	20 - 2 18	123
Neither	3.	23 -10 13	40 + 1 41	52 +15 67	23 - 6 17	138
Quite Likely to Leave	4.	17 - 2 15	29 - 3 26	38 - 7 31	17 +11 28	100
Very Likely to Leave	5.	23 - 6 17	41 + 5 46	53 - 5 48	23 + 6 29	140
Totals		107	189	242	106	644

Table 5.24. indicates that Catholics as a group were rather positively committed, being over-represented in the Unlikely to Leave categories. Anglicans and Other Protestants were somewhat ambivalent being over-represented in the Neither category and unevenly distributed through the other categories. Those indicating No Religion were, however, considerably over-represented in the Likely to Leave categories. Two relationships with Job Retention are thus established:

- i) A positive relationship with Catholicism
- ii) A negative relationship with 'No Religion'.

#### Job Retention and Age

The third of the significant Personal Variables was Age. This relationship was significant at the .001 level. the chi-square distribution is presented in Table 5.25.



Table 5.25.

Expected and Observed Frequencies:

Job Retention and Age

Job Retention		Age			Totals
		- 29	30 - 49	50 +	
Very Unlikely to Leave	1.	50 16	-34 80 109	+29 16 21	+ 5 146
Quite Unlikely to Leave	2.	46 31	-15 74 90	+16 14 13	- 1 134
Neither	3.	52 49	- 3 83 89	+ 6 16 13	- 3 151
Quite Likely to Leave	4.	38 49	+11 60 51	- 9 12 10	- 2 110
Very Likely to Leave	5.	51 92	+41 81 39	-42 16 17	+ 1 148
Totals		237	378	74	689

From Table 5.25. it can be seen that the relationship between Age and Job Retention, as with Age and Job Satisfaction, a positive one. The under 29 age group is significantly over-represented in the Likely to Leave categories, and the 30 - 49 and 50 + age groups are over-represented in the Unlikely to Leave categories. Older teachers are, therefore, less likely to leave than younger teachers, thus supporting the hypothesis of greater commitment with age.

Job Retention and Experience

The first of the two significant System Variables is Experience, significant at the .001 level. The chi-square distribution is shown in Table 5.26.

Table 5.26.

Expected and Observed Frequencies:

Job Retention and Experience

Job Retention		Experience			Totals
		1 - 9	10 - 19	20 +	
Very Unlikely to Leave	1.	73 38	47 58	25 50	146
Quite Unlikely to Leave	2.	67 49	44 63	23 22	134
Neither	3.	75 87	49 49	26 14	150
Quite Likely to Leave	4.	56 70	36 27	19 14	111
Very Likely to Leave	5.	76 103	49 28	26 20	151
Totals		347	225	120	697

From the table it can be seen that those with least experience (1 - 9 years) are over-represented in the Likely to Leave categories while those with medium and long experience (10 - 19 and 20 +) are over-represented among the Unlikely to Leave categories. There appears to be positive linear relationship between intention to stay and experience, again supporting the hypothesised relationship.

#### Job Retention and Seniority

The second of the significant (.001) System Variables is Seniority. The chi-square distribution is presented in Table 5.27.

Table 5.27.

Expected and Observed Frequencies:  
Job Retention and Seniority

Job Retention		Seniority						Totals
		High		Medium		Low		
Very Unlikely to Leave	1.	20	+25	19	+14	108	-29	147
		45		23		79		
Quite Unlikely to Leave	2.	18	+ 1	18	+12	98	-13	134
		19		30		85		
Neither	3.	20	- 7	20	- 1	110	+ 7	149
		13		19		117		
Quite Likely to Leave	4.	15	- 9	15	- 7	82	+15	111
		6		8		97		
Very Likely to Leave	5.	20	-11	20	- 9	110	+17	149
		9		11		129		
Totals		92		91		507		690

Table 5.27. indicates over-representation of High Seniority respondents in the Unlikely to Leave categories and over-representation of the Low Seniority respondents in the Likely to Leave categories. This would again indicate a positive relationship between Seniority and Likelihood of Leaving the profession, thus supporting the hypothesis of greater commitment with increases in System Variables.

In summary, Job Retention seems to be positively associated with Age, Experience and Seniority, with men rather than women and Catholics rather than Protestants. It is negatively associated with young, inexperienced, junior, female and agnostic respondents.

#### Disensus and System Maintenance

The third section of the analysis was concerned with the prediction of association between Attributed Disensus and System Maintenance, the general hypothesis being that the greater the degree of disensus the greater the likelihood of system impairment. In the analysis only two of fourteen relationships were identified as significant at better than the .05 level:

- i) Between Job Satisfaction and Gross Disensus (.05)
- and ii) Between Job Retention and Status Disensus (.05).

Table 5.28.

Summary of Chi-Square Test Results:  
Disensus and System Maintenance

Independent Variable	Job Satisfaction			Job Retention		
	F.	df.	p.	F.	df.	p
Status	10.730	8	NS	15.989	8	.05
Utility	8.019	8	NS	6.493	8	NS
Affect	9.456	8	NS	4.926	8	NS
Organisation	10.177	8	NS	8.337	8	NS
Subject Matter	14.082	8	NS	7.150	8	NS
Sociation	12.257	8	NS	3.365	8	NS
Gross	15.284	8	.05	6.765	8	NS

Table 5.28. presents the full results of the chi-square tests.

Job Satisfaction and Gross Disensus.

Table 5.29 presents the chi-square distribution for the variables of Job Satisfaction and Gross Disensus.

Table 5.29.

Expected and Observed Frequencies:  
Job Satisfaction and Gross Disensus

Job Satisfaction		Gross Disensus			Totals
		Low	Medium	High	
Very Satisfied	1.	52 58	52 50	52 51	159
Quite Satisfied	2.	113 107	113 115	113 117	339
Neither	3.	24 34	24 25	24 13	72
Quite Dissatisfied	4.	34 26	34 35	34 41	112
Very Dissatisfied	5.	8 7	8 7	8 11	25
Totals		232	232	233	697

It can be seen that the negative relationship predicted between Job Satisfaction and Disensus is supported by the data, those exhibiting high degrees of Disensus being over-represented in the Dissatisfied groups and those exhibiting low Disensus being over-represented in the Satisfied groups. The relationship does not however, reach a particularly high level of significance.

#### Job Retention and Status Disensus

Table 5.30. presents the chi-square distribution for this analysis, significant at the .05 level.

Table 5.30.

Expected and Observed Frequencies:

Job Retention and Status Disensus

Job Retention		Status Disensus			Totals
		Low	Medium	High	
Very Unlikely to Leave	1.	49 51	+ 2 51	49 45	- 4 147
Quite Unlikely to Leave	2.	45 44	- 1 38	45 52	+ 7 134
Neither	3.	51 66	+15 50	51 37	-14 153
Quite Likely to Leave	4	37 31	- 6 39	37 41	+ 4 111
Very Likely to Leave	5.	51 40	-11 54	51 58	+ 7 152
Totals		232	232	233	697

It can be seen from the table that there is significant under-representation of those experiencing Low Status Disensus in the Likely to Leave categories. Conversely there is over-representation of those experiencing High Status Disensus in the Likely to Leave categories. There would therefore, seem to be a significant (.05) positive relationship between Disensus over Status and Likelihood of Leaving. This supports the general hypothesis outlined in Chapter III.

### Summary

The three sets of analysis proved to have varying degrees of predictive power. In the first leg of the analysis, the relationship between Personal and System Variables and Disensus Scores, 14 out of 77 comparisons proved significant at levels ranging between .005 and .05. In the second set of analyses, concerning the relationships between Personal and System Variables and System Maintenance, 10 out of 22 comparisons were significant at between .001 and .01 levels. In the third set of analyses, the relationships between Disensus Scores and System Maintenance, only 2 of 14 comparisons proved significant, both at the .05 level. The implications of these findings and in particular variations in their predictive power are discussed in the following chapter.

## CHAPTER VI

### Summary and Conclusions

The central tenet of role theory with which this investigation has been concerned, is that variations in role consensus are related to the stability and integration of the system and to the commitment of individuals to particular roles. Accordingly, initial discussion of the study's conceptual framework centered on Merton's (1957) theoretical formulation of the concept of the role set. This discussion led to the suggestion that three sets of rules govern relationships between members:

- i) those governing the selection of persons for positions,
- ii) those specifying admissible relationships between positions,
- and iii) those allocating tasks to different positions.

These rules were seen as being modified by the effects of different expectations of various role set members. Several sources of such variation were advanced, among them the influence of differential linkage of role set members to other social structures. It was further suggested that disensus might arise from differences in expectations that were associated with non-institutionally defined roles; for example sex and age roles. Whatever the source of such disensus, however three logical alternative responses to overt expressions of disensus were seen to be possible:

- i) The incumbent of a particular position may assert what he regards as his rights and obligations and the incumbents of complementary positions may modify their expectations accordingly.
- ii) Incumbents of complementary positions may assert their expectations and the incumbent of the focal position may modify his expectations accordingly.
- iii) The incumbent of the focal position may assert his rights while the incumbents of complementary positions may assert his obligations (their own rights) and a compromise modification may be effected.

The statement of expectations and the resultant role definition is not necessarily unambiguous however. Typically, as Merton argues, the condition of the role set is one of inadequate articulation of



expectations where disensus inhibits maximum efficiency. The situation is further complicated by such factors as the emergence of coalitions of incumbents, variations in the observability of role performance, conditions of pluralistic ignorance and differential involvement in the role set.

In view of these issues the general research problem was reformulated in a more specific fashion as:

- i) the detection of disensus among members of the role set,
- ii) the identification of variables associated with varying degrees of disensus,
- iii) the assessment of the likelihood of system impairment.

Such reformulation demanded a theory of social interaction which specified the nature of the relationships involved. The theory employed (Adams, 1971), viewed social behaviour as the exchange of three 'commodities', Status, Utility and Affect. These commodities were incorporated into the Mode dimension of the present study.

The theoretical framework was then applied to a specific role - that of the teacher; but performed in a specific context - that of the classroom. The specification of a precise context allowed a restriction to be placed on the number of behaviours about which expectations could be solicited. The classroom context was specified because of the centrality of classroom performance in the role of the teacher. After reference to a number of observational studies and discussion of certain functional theories, the Content of classroom interaction was classified into Organisation, Subject Matter and Sociation dimensions.

The three Mode and three Content dimensions were then integrated to provide a nine category typology of teaching styles. These styles could be variously summated to produce a profile indicating the relative emphasis placed by respondents on the six categories in the Content and Mode dimensions. Comparison between profiles could thus be used to detect disensus among respondents and, more especially, between respondents holding different positions in the role set. Such comparisons provided the first component of the research model.

The second component of the model was an index of System Maintenance. The argument was advanced that incumbents of the teacher position who experienced low job satisfaction were likely to either

reduce the cohesion of the role set or leave the role set, thus threatening the stability and maintenance of that social system. Statements of Job Satisfaction and Job Retention were therefore selected as indices of System Maintenance.

The third component of the research model was a variety of independent variables concerning personal and system characteristics of respondents. The selection of these variables was based on prior empirical research into teacher role and included Age, Sex, Marital Status, Religion, Race, Position, Qualifications, Experience, Specialism and Length of Training. Likely relationships between these three components of the research model were specified in some detail in Chapter III and the hypotheses discussed at some length in Chapter IV.

### Salient Results

The discussion that follows is directed toward an examination of the relationships between the theoretical basis of the investigation and the actual results. Further elaboration of the findings will not be attempted but, in order to facilitate discussion, a brief summary of salient findings for each of the major directional relationships will be presented before their overall significance is discussed.

#### Personal and System Variables and Attributed Disensus

Increases in Disensus over Status, Utility, Affect, Subject Matter and Gross Disensus were found to be associated with increases in Qualification level. Decreases in Disensus over Organisation were found to be associated with Age and Experience. In addition certain dichotomous relationships were evident: the No Religion group displayed high disensus over Utility; the Separated and Divorced group displayed high disensus over Status; the Single respondents displayed high disensus over Organisation; the Female respondents displayed high disensus over Affect; the Male respondents displayed high disensus over Subject Matter, as did Secondary respondents. What these results seem to indicate is that those factors which are most closely related to professionalism - qualifications and experience - are the most consistent predictors of attributed disensus. Other results seem to indicate that basic, non-institutional roles exert an influence on attributed disensus in highly specific areas. For instance, the associations of Femininity with disensus over

Affect; and of Masculinity with disensus over Subject Matter, agree quite well with the generalised association of Female roles with expressive and Male roles with instrumental orientations (Banton, 1965). It might also be argued that the high rate of disensus over Utility expressed by those claiming No Religious affiliation, was associated with a generalised utilitarian bias characteristic of rationalist and humanistic philosophies. The association of high disensus over Status with the Separated or Divorced might be the result of general diffidence over Status on the part of a group whose role is atypical and whose status is uncertain. The high rate of disensus over Subject Matter for Secondary respondents is consistent with the traditionally heavy emphasis placed on subject matter content by post-primary, academically oriented schools. In general the findings for this section of the research are consistent with the theoretical model presented earlier.

#### Personal and System Variables and System Maintenance

The results of this section of the analysis showed linear relationships to exist between the two criterion variables, Job Satisfaction and Job Retention, and the independent variables of Age, Experience and Seniority. Increases in Age, Experience and Seniority were associated with marked increases in both Job Satisfaction and Job Retention. These results were consistent with the hypothesised relationships. In addition, several dichotomous relationships were discovered. Female respondents, although undifferentiated on Job Satisfaction showed markedly lower likelihood of Job Retention; respondents who were Separated or Divorced displayed unexpectedly high levels of Job Satisfaction; respondents claiming No Religious Affiliation displayed lower levels of both Job Satisfaction and likely Job Retention; while Anglicans and other Protestants indicated high Job Satisfaction and Catholics high likely Job Retention.

The results indicated a low retention rate for females - a finding compatible with the tendency of young women to regard teaching as an interim occupation (Watson, 1966). In the case of the high Job Satisfaction rates of the Separated and Divorced group these may well be attributable to the occupational role set's replacing the family as the unit of major role commitment.

In any case, it would seem that the system variables of Experience and Seniority, and the allied personal variable of Age are,

in general, more highly predictive of Job Satisfaction and Job Retention than the other Personal variables, which tend to indicate highly specific and limited relationships explicable in terms of participation in alternative role sets or in roles of a more basic, non-institutional kind.

#### Disensus and System Maintenance

The third set of predictions were concerned with the relationship between Disensus and System Maintenance. Of the two significant relationships, one predicted to Job Satisfaction and the other to Job Retention. High Gross Disensus was found to be associated with low Job Satisfaction but not significantly associated with low Job Retention. High Status disensus was associated with Low Job Retention but not with Job Satisfaction. In the first case, the association of high disensus with low Job Satisfaction supports the hypothesised relationship - although the absence of any significant relationship between Disensus and Job Retention must be taken as an indication that while disensus reduces Job Satisfaction and possibly the cohesion of the group, it does not necessarily lead to system breakdown through the defection of dissatisfied members. This however, may be a mixed blessing. In the second case, where High Status Disensus predicts to Low Job Retention it may well be that the greatest single cause of role set members' leaving is discrepant expectations over Status. Although this study emphasises Status relationships in the classroom context, it is likely that high emphasis on any one particular dimension might be an indication of differences of the dimension into situations other than the classroom. This being so, it could be argued that Status pre-occupation is an uncomfortable companion to the relatively low occupational prestige of teaching. Inconsistencies of this kind may very well be powerful in motivating individuals to alter their occupational role sets.

#### Component Relationships

The previous chapter noted that the rate of prediction for each of the major relationships varied. The highest rate occurred when predicting from Personal and System Variables to System Maintenance (1 in 2); the second highest when predicting from Personal and System Variables to Disensus (1 in 5), and the lowest when predicting from

Disensus to System Maintenance (1 in 7). This would seem to indicate that for System Maintenance, greater predictive power can be gained from Personal and System Variables than from the measures of Disensus. Similarly, while Personal and System variables were predictors of Disensus on a number of dimensions, the prediction does not seem to carry through to the prediction of System Maintenance. Explanations of these findings may be of two basic kinds. The first concerns the adequacy of the instruments used and the second concerns the theoretical formulation on which the research is based. Each is dealt with below.

#### Adequacy of Instruments

The immediate response to an apparent lack of predictive power is to question the precision of the instruments employed. In this case, two measures are involved:

- i) the measurement of Disensus, and
- ii) the measurement of System Maintenance.

In the first stage analysis, the instrument appeared to be highly discriminating in the measurement of Disensus. All dimensions except Sociation proved to be significantly associated with one or more independent variables, and indeed different independent variables were individually related to different dimensions of Disensus; i.e. Religion to Utility; Marital Status to Status; Single Status to Organisation; Female Respondents to Affect; Male Respondents to Subject Matter; Experience and Age to Organisation; and Qualifications to Status, Utility, Affect, Subject Matter and Gross dimensions. That Sociation did not discriminate does not imply that the dimension is necessarily insensitive. It may well be that the lack of indication of differentiation is a direct reflection of the degree of agreement existing in respondents' minds over the importance of Sociation in classrooms. It would appear then that overall, the measures of disensus employed exhibited sufficient degrees of sensitivity and discrimination for confidence to be placed in their precision.

Similarly with the measures of System Maintenance. Although measures of Job Satisfaction and Job Retention are of limited usefulness, the fact remains that both measures discriminated on a variety of occasions in the second stage of the analysis and, moreover, discriminated in a manner compatible with the theoretical position and in directions consistent with the findings of previous research.

This being so, the theoretical implications of the findings merit due attention.

#### Theoretical Implications

The findings of this study have implications for three major theoretical areas:

- i) the sources of disensus in the role set,
- ii) the management of disensus in the role set,
- iii) the effects of disensus on the maintenance of the role set.

#### Sources of Disensus

The major source of Disensus in the Role Set has been suggested as residing in the differential linkage of members to other social structures. In particular it was considered that the assumption of non-institutional roles such as Age, Sex, Religion, Racial and Marital roles would discriminate between respondents. With the exception of racial roles, the findings support this contention. This exception does not necessarily invalidate the hypothesis however, as the sample of those from minority racial groups was too small to generate statistically significant results. The small size of this group may also be consistent with the possibility that their socialisation into the norms of the teaching profession and contiguous socialisation into the normative patterns of the majority group would have been substantial anyway.

The findings, for the remaining Personal variables displayed a complex, rather than simple set of relationships. While they did in general lend support to the overall hypothesis, they did, on occasion, reverse the predicted direction of relationship. For instance, greater Disensus was predicted on all dimensions for Male teachers over Female teachers. The hypothesis was confirmed on one dimension - Subject Matter - but reversed on another dimension - Affect. This may well be a reflection of the greater importance attached to each of these dimensions by the respective groups. Again, the hypotheses predicted lower levels of Disensus for Married respondents - a hypothesis that was confirmed with relation to Disensus over Organisation - but when a third category - Divorced or Separated - was included in the analysis, a non-predicted relationship resulted. Higher levels of Disensus over Status was found to exist for this



group than for either Married or Single respondents. A similar pattern occurred with Religion as the independent variable. Although no significant differences were found between the Catholic and Protestant groups, when a third category - No Religious Affiliation - was introduced into the analysis this group displayed a significantly higher level of Disensus over Utility.

It appears from these results that not only does membership of alternative role sets introduce elements of Disensus into the role set of the teacher, but that the nature of the Disensus is also fairly specific according to the nature of the alternative role. The implication of such evidence for the role set of the teacher is that while selection procedures are generous rather than restrictive, Disensus of these kinds will remain an integral part of the system.

#### Management of Disensus

If the selection procedures governing entry to teaching virtually ensure that the sources of Disensus identified above are continued, questions arise as to i) what forms of management of such Disensus exist within the role set, and ii) what effects the Disensus and its attempted management have on the system.

It has already been pointed out that role systems in which members hold the same values and expectations are relatively rare although the ideal model where incumbents of different positions in a social system agree on the rights and obligations associated with each others positions is still the basis of much discussion in role theory. In this latter (ideal-typical) situation it is reasonable to assume that deviant behaviour will be sanctioned by other group members so that the deviant 'corrects' his behaviour or leaves the role set. However, in a situation where members hold varying definitions of their roles, the same behaviour may result in the application of negative sanctions by some members and positive sanctions by others. Similarly, if one group member perceives that there is a lack of consensus, he may well be prevented from applying negative sanctions when another's behaviour deviates from his own expectations because of the ambiguity of the overall definition of the situation.

It has been suggested (Fraser, 1967a, 1967b) that the school is notoriously subject to ambiguity over both goal specification and methods for task accomplishment. It would seem to follow that if



the definitions of goals and methods are multiple, vaguely stated and in conflict, the statement of role expectations by incumbents of the social system might well be problematic. In such a situation where the variety of disensus over role expectations is a reflection of the general ambiguity of the setting, several of the management mechanisms suggested by Merton would seem to apply.

First among these are the mechanisms surrounding the condition of pluralistic ignorance which exists with regard to teacher role definition. Neither parents nor other teachers have any means of determining with accuracy what actually happens in the classrooms of particular teachers. Neither do parents or pupils have any official channels where expectations of teacher performance can be effectively articulated and communicated. In such a situation the condition of pluralistic ignorance may lead either to the unfounded assumption that expectations are uniformly shared or, more important in the present case, that they are unshared. Thus the inadequate articulation associated with conditions of pluralistic ignorance may serve to mitigate or at least obscure the effects of disensus over role definition.

It is also true that the structural properties of schools tend to allocate teachers considerable autonomy over their classroom behaviour. Unlike the situation in the factory described by Kahn et al. (1964) the adequate performance of complementary roles does not depend on the intimacy of association of role set members. Thus, greater diversity of mode and content can be tolerated than in more tightly knit, closely interdependent role sets.

The teacher's independence, allied to the age differential between teacher and pupil and the lack of channels of communication between teacher and parent also leads to a situation where the power differential of members of the role set is very considerable. Thus the possible opportunity for the modification of teacher role definition by those closest to the teacher (pupils) is offset by the lack of power to implement such modification.

In such a situation it is quite reasonable to predict that teachers with confidence in their teaching skills may be able to withstand disensus without major modification of their own role definitions. The findings that those with higher qualifications tend to exhibit greater degrees of attributed disensus, but not notably

less job satisfaction lends support to this position.

Another mechanism of management is associated with the increased Job Satisfaction which apparently comes with increased identification with the role set. If, as was argued earlier, experience and seniority are accepted as indicative of commitment to the role set, one would expect not only increased Job Satisfaction but also a decrease in Disensus. Such a decrease has been shown to occur on one dimension in particular - Organisation. Disensus over Organisation was discovered to decrease with Age and Experience. This may, of course, simply reflect a change in perspective of those who were once the organised and are now the organisers. However, it is equally probable that with age comes increased acceptance of the operating norms of the role set and the conventions surrounding this aspect of the definition of roles. Alternatively, it may indicate that only those who make such acceptance stay with the system long enough to accumulate the experience necessary for the incumbency of senior positions.

It has been suggested that i) variations in commitment to the role, ii) variations in Disensus associated with membership of alternative role sets, and iii) the management of disensus within the role set all hold implications for the maintenance of the role set through time. Indeed, the major premise that disensus leads to diminishment of cohesion of the role set is predicated on just such arguments. It is to the implications of the findings for this position that attention must now be drawn.

#### Disensus and Maintenance of the Role Set

Predictions from Disensus to the two measures of System Maintenance were supported by two significant results. The first was that high levels of Gross Disensus are associated with reduced Job Satisfaction. The second was that High levels of Status Disensus are associated with reduced likelihood of Job Retention. There are however certain anomalies in these results. Firstly, although high rates of Gross Disensus reduce Job Satisfaction, no significant relationship was found with Job Retention. Secondly, although high rates of Status Disensus appeared to predict to low likelihood of Job Retention, no significant relationship was found with Job Satisfaction. These findings imply that although Job Satisfaction may be reduced by overall Disensus, low likelihood of Job Retention

is a function of a very specific kind of Disensus which does not affect levels of Job Satisfaction.

From a theoretical point of view these results are important. It will be remembered that earlier argument established two likely results of varying degrees of Disensus: i) extreme disensus will lead to withdrawal from the role set, and ii) residual disensus may interfere materially with the effective performance of the roles in question. It was further argued that the typical condition of the role set is one of considerably less than fully efficient operation. The argument that extreme disensus initiates the withdrawal of members from the role set is supported in the case of teacher role by evidence of one particular kind of disensus. The more interesting situation arises however, in the second case where disensus leads to lower Job Satisfaction but not to withdrawal from the system. This would seem to support the contention that such levels of Disensus as exist together with the generally low rates of Job Satisfaction might materially interfere with the effective performance of role set members. However, it has already been pointed out that there are a variety of types of Disensus appearing within the teacher population each of which is associated with the simultaneous membership of certain alternative roles. This suggests that within the general framework of Gross Disensus the specific nature of the Disensus associated with various Personal variables leads to a highly structured diversity of argument over role definition ~~within~~ the teacher population. In general, Merton's hypothesis that such disensus over role definition reduces efficiency may well be acceptable. There are, however, certain aspects of the teaching situation which indicate that the teacher role set operates under a rather different condition.

Firstly, little agreement has been established theoretically or pragmatically on the criteria for 'efficient' teaching. Secondly, the diversity of the pupil population faces the system with a non-standardised input which demands a variety of reactions on the part of the system. Thirdly, the 'output' criteria of the system are various. What these factors imply is that teaching is an occupation where ambiguity and complexity of expectations over performance are widespread, with the result that effective support can be provided for a variety of alternative performances. Indeed, during the operationalising

of the present instrument it became apparent that each of the nine styles proposed could be justified on a variety of criteria common in educational debate.

In the face of such diverse conditions and as a result of the ambiguity of criteria of efficiency and performance it may well be that the presence of a variety of perspectives on teacher role definition is a necessary guarantee of diversity in teaching practices. Thus, although by the criterion of 'efficiency' the extent of role disensus among the teaching population might be considered to interfere with effective performance of roles, it may well be that the effective performance of the education system in the face of considerable diversity of demands and inputs depends upon the existence of such a variety of disensus within the system. To the extent that disensus over role definition could be an integral and essential part of role-performance because it ensures that teachers are as diverse as their clientele, the role of the teacher may in fact be atypical. In other words, there may be features of the teacher role that make it exempt from some of Merton's postulations.

#### Caveat

The possibility that the role of the teacher is atypical merits closer examination because no final conclusions can be drawn from the current exploratory investigation. For one reason, the Disensus reported is a particular kind of Disensus derived from teachers' perceptions of the expectations of various role set members. Further, no analysis has yet been undertaken of the directional nature of this disensus or the role set positions to which teachers attribute the greatest divergence of expectation. Similarly, analysis of actual disensus derived from statements by Parents and Pupils has yet to be completed. It may well be that the teachers' perception of others' expectations are inaccurate - a result that would underscore the condition of pluralistic ignorance suggested by the present study. Finally, any analysis of a role performance as complex and wide-ranging as that of the teacher must take account not only of the generalised context of 'the classroom' but also of other specific educational settings. The possibility that disensus is a function of various characteristics of the school such as location, size, level, community ecology, racial composition and staffing ratios must be considered. Such subsequent analyses are the natural outcome of the present investigation.

APPENDIX A

Questionnaire

**MASSEY UNIVERSITY**  
**Department of Education**



**National Role Set Study (New Zealand)**

**Teacher Questionnaire**

**Project Supervisors:**  
**Richard J. Bates,**  
**Raymond S. Adams.**

This is a questionnaire to find out what you think about the teacher's role. Teachers can teach in many different ways and we are interested in finding out which ways of teaching you prefer. To do this we have listed below nine different ways of teaching. Please read them through and make sure that you are clear about the meaning of each statement.

The Teacher:

1. Helps pupils to learn by showing that the subject is useful.
2. Helps pupils to get along with people by having them respect people in authority.
3. Helps pupils get along with people by having them understand the advantages of doing so.
4. Helps the class work well by having pupils be concerned with getting on with the job.
5. Helps pupils to learn by showing that he knows the subject well.
6. Helps pupils to learn by showing that the subject is enjoyable.
7. Helps pupils to get along with people by having them show concern for others.
8. Helps the class work well by having pupils follow his directions carefully.
9. Helps the class work well by having pupils do things in ways that they like.

In the questionnaire these descriptions of ways of teaching are put together in pairs. You are asked to show which one of **each pair** is, in your opinion, the best way for a teacher to teach. What you have to do is to take the letter (A or B) belonging to the one you prefer and write it in the brackets alongside. There is an example below. Please do it for practice.

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Place either A or B in the brackets alongside the item to show which alternative you think is best.

- A      Helps the pupils understand subjects by using films and field trips.  
or  
B      Helps the pupils to get to know each other by getting them to work together in groups.

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(      )



In the questionnaire you will sometimes find the choice is hard to make because you will like both ways of teaching (or dislike them both). Nonetheless please be sure to select **one** alternative. To allow you to show how much you prefer the one you have chosen, the words 'very strongly', 'moderately' and 'slightly' have been written below the brackets. Please **draw a circle** around the word which best describes how strong your choice was.

Please give each pair careful thought. There are no right or wrong answers or good or bad ones. We just want to find out what you really think about teaching.

Would you also please indicate, in the brackets at the extreme right which choice you think parents pupils and other teachers would make.

1.	A	Helps pupils to learn by showing that the subject is useful.	(     ) Very Strongly	Parents (     ) Pupils (     )
or	B	Helps pupils to get along with people by having them respect people in authority.	Moderately Slightly	Other Teachers (     )
2.	A	Helps pupils to get along with people by having them understand the advantages of doing so.	(     ) Very Strongly	Parents (     ) Pupils (     )
or	B	Helps the class work well by having pupils be concerned with getting on with the job.	Moderately Slightly	Other Teachers (     )
3.	A	Helps pupils to learn by showing that he knows his subject well.	(     ) Very Strongly	Parents (     ) Pupils (     )
or	B	Helps the class work well by having pupils be concerned with getting on with the job.	Moderately Slightly	Other Teachers (     )
4.	A	Helps pupils to learn by showing that the subject is enjoyable.	(     ) Very Strongly	Parents (     ) Pupils (     )
or	B	Helps pupils to learn by showing that he knows his subject well.	Moderately Slightly	Other Teachers (     )

Please check to make sure that you have a letter in every pair of brackets.

- |    |   |   |  |   |
|----|---|---|--|---|
| 5. | A | Helps pupils to get along with people by having them show concern for others. | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or | B | Helps the class work well by having pupils follow his directions carefully.   |  |   |
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|----|---|---|--|---|
| 6. | A | Helps pupils to get along with people by having them show concern for others. | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or | B | Helps pupils to learn by showing that the subject is enjoyable.               |  |   |
- 
- |    |   |   |  |   |
|----|---|---|--|---|
| 7. | A | Helps pupils to learn by showing that he knows his subject well.              | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or | B | Helps pupils to get along with people by having them show concern for others. |  |   |
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- |    |   |   |  |   |
|----|---|---|--|---|
| 8. | A | Helps the class work well by having pupils follow his directions carefully. | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or | B | Helps pupils to learn by showing that the subject is enjoyable.             |  |   |
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- |    |   |  |  |   |
|----|---|--|--|---|
| 9. | A | Helps pupils to learn by showing that the subject is useful.                 | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or | B | Helps the class work well by having pupils do things in ways that they like. |  |   |
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|-----|---|---|--|---|
| 10. | A | Helps the class work well by having pupils do things in ways that they like.                | (   )<br>Very Strongly<br>Moderately<br>Slightly | Parents (   )<br>Pupils (   )<br>Other Teachers (   ) |
| or  | B | Helps pupils to get along with people by having them understand the advantages of doing so. |  |   |

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|-----|---|---|--|---|
| 11. | A | Helps the class work well by having the pupils be concerned with getting on with the job. | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils to learn by showing that the subject is useful.                              |  |   |
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|-----|---|---|--|---|
| 12. | A | Helps pupils to get along with people by having them respect people in authority.           | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils to get along with people by having them understand the advantages of doing so. |  |   |
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- |     |   |   |  |   |
|-----|---|---|--|---|
| 13. | A | Helps pupils to get along with people by having them understand the advantages of doing so. | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils to learn by showing that he knows his subject well.                            |  |   |
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|-----|---|---|--|---|
| 14. | A | Helps pupils to get along with people by having them understand the advantages of doing so. | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils to get along with people by having them show concern for others.               |  |   |
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- |     |   |   |  |   |
|-----|---|---|--|---|
| 15. | A | Helps pupils to learn by showing that the subject is useful.                  | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils to get along with people by having them show concern for others. |  |   |
- 
- |     |   |   |  |   |
|-----|---|---|--|---|
| 16. | A | Helps the class work well by having the pupils be concerned with getting on with the job. | (     )<br>Very Strongly<br>Moderately<br>Slightly | Parents (     )<br>Pupils (     )<br>Other Teachers (     ) |
| or  | B | Helps pupils get along with people by having them respect people in authority.            |  |   |

- |       |    |   |   |  |
|-------|----|---|---|--|
| 17.   | A  | Helps pupils to get along with people by having them understand the advantages of doing so. | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps pupils to learn by showing that the subject is enjoyable.                             |   |  |
| <hr/> |    |   |   |  |
| 18.   | A  | Helps the class work well by having the pupils be concerned with getting on with the job.   | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps pupils to get along with people by having them show concern for others.               |   |  |
| <hr/> |    |   |   |  |
| 19.   | A  | Helps the class work well by having pupils follow his directions carefully.                 | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps pupils to get along with people by having them understand the advantages of doing so. |   |  |
| <hr/> |    |   |   |  |
| 20.   | A  | Helps pupils to learn by showing that the subject is useful.                                | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps pupils to learn by showing that the subject is enjoyable.                             |   |  |
| <hr/> |    |   |   |  |
| 21.   | A  | Helps pupils to learn by showing that he knows his subject well.                            | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps pupils to get along with people by having them respect people in authority.           |   |  |
| <hr/> |    |   |   |  |
| 22.   | A  | Helps pupils to learn by showing that the subject is enjoyable                              | (    )<br>Very Strongly<br>Moderately<br>Slightly | Parents (    )<br>Pupils (    )<br>Other Teachers (    ) |
|       | or |   |   |  |
|       | B  | Helps the class work well by having the pupils be concerned with getting on with the job.   |   |  |

23.	A	Helps pupils to get along with people by having them respect people in authority.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps the class work well by having pupils follow his directions carefully.		
24.	A	Helps the class work well by having pupils do things in ways that they like.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps the class work well by having pupils follow his directions carefully.		
25.	A	Helps pupils to get along with people by having them understand the advantages of doing so.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps pupils to learn by showing that the subject is useful.		
26.	A	Helps pupils to get along with people by having them show concern for others.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps the class work well by having pupils do things in ways that they like.		
27.	A	Helps pupils to learn by showing that he knows his subject well.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps pupils to learn by showing that the subject is useful.		
28.	A	Helps the class work well by having pupils do things in ways that they like.	( ) Very Strongly Moderately Slightly	Parents ( ) Pupils ( ) Other Teachers ( )
	B	Helps pupils to learn by showing that he knows his subject well.		

- |     |   |   |               |                        |
|-----|---|---|---------------|------------------------|
| 29. | A | Helps pupils to get along with people by having them respect people in authority. | (     )       | Parents (     )        |
|     |   |   | Very Strongly | Pupils (     )         |
| or  |   |   | Moderately    | Other Teachers (     ) |
|     | B | Helps the class work well by having pupils do things in ways that they like.      | Slightly      |                        |
- 
- |     |   |   |               |                        |
|-----|---|---|---------------|------------------------|
| 30. | A | Helps the class work well by having the pupils be concerned with getting on with the job. | (     )       | Parents (     )        |
|     |   |   | Very Strongly | Pupils (     )         |
| or  |   |   | Moderately    | Other Teachers (     ) |
|     | B | Helps the class work well by having pupils do things in ways that they like.              | Slightly      |                        |
- 
- |     |   |   |               |                        |
|-----|---|---|---------------|------------------------|
| 31. | A | Helps the class work well by having pupils follow his directions carefully.               | (     )       | Parents (     )        |
|     |   |   | Very Strongly | Pupils (     )         |
| or  |   |   | Moderately    | Other Teachers (     ) |
|     | B | Helps the class work well by having the pupils be concerned with getting on with the job. | Slightly      |                        |
- 
- |     |   |   |               |                        |
|-----|---|---|---------------|------------------------|
| 32. | A | Helps pupils to get along with people by having them respect people in authority. | (     )       | Parents (     )        |
|     |   |   | Very Strongly | Pupils (     )         |
| or  |   |   | Moderately    | Other Teachers (     ) |
|     | B | Helps pupils to learn by showing that the subject is enjoyable.                   | Slightly      |                        |
- 
- |     |   |   |               |                        |
|-----|---|---|---------------|------------------------|
| 33. | A | Helps the class work well by having pupils follow his directions carefully. | (     )       | Parents (     )        |
|     |   |   | Very Strongly | Pupils (     )         |
| or  |   |   | Moderately    | Other Teachers (     ) |
|     | B | Helps pupils to learn by showing that he knows his subject well.            | Slightly      |                        |

34.	A	Helps pupils to get along with people by having them show concern for others.	(     ) Very Strongly	Parents (     ) Pupils (     )	
or	B	Helps pupils to get along with people by having them respect people in authority.	Moderately Slightly	Other Teachers (     )	
35.	A	Helps pupils to learn by showing that the subject is useful.	(     ) Very Strongly	Parents (     ) Pupils (     )	
or	B	Helps the class work well by having pupils follow his directions carefully.	Moderately Slightly	Other Teachers (     )	
36.	A	Helps the class work well by having pupils do things in ways that they like.	(     ) Very Strongly	Parents (     ) Pupils (     )	
or	B	Helps pupils to learn by showing that the subject is enjoyable.	Moderately Slightly	Other Teachers (     )	



## Professional and Personal Information

Would you also please answer the questions below by giving the required information or by ticking the space provided.

1. What is your official title? (Headmaster, first assistant, assistant master etc).....
2. List all academic degrees and/or other teacher qualifications you hold (Teachers Cert. Dip.Teaching, B.A., M.A. etc.) .....  
.....
3. Including this year, how many years teaching experience have you had? (Exclude practice teaching).
  1. At primary level .....
  2. At secondary level .....
  3. At tertiary level .....
4. Do you regard yourself as a specialist? Yes (     ), No (     ).  
If yes, what subject(s) .....
5. Do you teach S.4, F.II, F.IV, F.VI, F.VII ? (Please circle)
6. What is your age? .....
7. What is your sex? .....
8. What is your racial background? .....
9. What is your religion? .....
10. What is your marital status? .....
11. When you were an adolescent, what was your father's principal occupation?
  - (a) Title of father's job .....
  - (b) Type of organisation employing him .....

12. Did you attend Teachers College? If yes, for how long? .....

13. In comparison with other teachers how satisfied with teaching are you?

Very Satisfied

Moderately satisfied

Neither satisfied nor dissatisfied

Moderately dissatisfied

Very dissatisfied

14. How likely are you to leave the profession in five years time?

Very likely

Quite likely

Uncertain

Quite unlikely

Very unlikely

If you are likely to leave, what would be your reason for leaving?

.....

## APPENDIX B

### MASSEY UNIVERSITY

#### Role Set Study.

#### Coding Manual

#### Part I

#### Teacher Questionnaires

**Preamble:** The responses to the items in the questionnaire have to be converted to numerical terms and entered on the I.B.M. coding sheet. The sheets are designed so that each horizontal row represents one computer card and each of the vertical columns represent one column on that card. It is only possible to have one single digit number (0 - 9) in each column. Each questionnaire will consume at least two and sometimes three cards. Please follow this ritual.

- Step 1. Assemble together: coloured coding-key sheet  
: one sharp cobblers-type knife or razor blade.
- Step 2. Take each coloured key sheet and carefully make apertures on each sheet by cutting-out the printed boxes. (The holes will be vision panels in which the questionnaire responses will appear when the code-key is placed over the top of the (right) page. The letters printed alongside the boxes are the codes - they must not be disfigured. (We're sorry about this chore, but having it done commercially would have delayed us considerably.)
- Step 3. Now take all teacher questionnaires and put them in numerical order
- Step 4. Assemble together: all teacher questionnaires  
: the blue coding keys  
: a pencil  
: the I.B.M. sheets.
- Step 5. Take the I.B.M. sheet and write in the first space (underneath column 1 and alongside row 1) the number 1. This is to show that this card is number one for this respondent. (All entries in column one indicate the card number).
- Step 6. Write in the adjacent space in column two, the number 4. This indicates that it is a teacher questionnaire. All teacher cards should have 4's in column two. (All pupil cards have 3, and home cards have either 1 or 2).
- Step 7. In the next adjacent spaces (columns 3 - 8) write the number belonging to the questionnaire you are coding. Leave columns 9 and 10 blank.

Your I.B.M. Card should now look something like this:

1 - 10									
1	2	3	4	5	6	7	8	9	0
1	1	4	0	0	2	0	3	7	

This code sheet tells that this is the first card of a teacher from school number 062, whose own identification number was 037. (Note: If the school number is less than one hundred you should put an 0 in column 3. If the teacher's number is less than 100 you should have an 0 in column 6. If it is less than 10, you should have 0's in columns 6 and 7.)

Now you are ready to start coding the questionnaire items. To do so you need Coding Key number 2.1.

Step 8. Place coding key over the open page of the questionnaire, ensuring that the number alongside the smallish box (No. 1) coincides with the number showing through and also that all responses on the page appear in the other apertures.

Step 9. From here on there is a ritual to follow for each response. Two entries in two adjacent columns have to be made. The first entry is the number associated with the A - B response. The second is the number associated with the 'very strongly' - 'moderately' - 'slightly' response.

The number appropriate for the A or B response is printed on the scoring key directly above the aperture. Select the right one and write it in column 11 on the I.B.M. sheet.

Next identify whether the respondent has circled very strongly, moderately or slightly and enter in column 12 the appropriate number (all very strongly's get 3, moderately's 2 and slightly's 1).

Step 10. Leave a gap in the next column - column 13.

Step 11. Repeat procedure for next item on questionnaire, i.e. A - B entry in column 14; 'strongly' etc. entry in column 15 AND leave gap in column 16.

N.B. There should always be a gap after each pair of entries so that the following columns must have no entries in them.

13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46, 49, 52, 55, 58  
61, 64, 67, 70, 73, 76, 79 (and 80).

Step 12. Continue on through the questionnaire changing coding key as you turn the page. You will need for the present questionnaire coding keys number 2.1, 2.2, 2.3, 2.4 in that order.

N.B. Always check to ensure that the little box's number coincides with the one displayed.

You will finish the row on Item 23 and with your last entry in column 78.

- Step 13. Check by: 1. ensuring that the gaps are in the right place.  
2. that in each pair of item entries, the second one is always 1, 2, or 3.

You are now ready to begin putting entries in the next horizontal row.

- Step 14. Enter in column one of the new row, the number 2.  
(Indicates 2nd card).

- Step 15. Enter in column two the number 4 (Teacher)

- Step 16. Enter in column three through eight the questionnaire identification numbers (the same ones as in the row immediately above).

N.B. At this point, check these six numbers against those on the booklet itself.

- Step 17. Still using the last coding key now record in columns 11 and 12 the two responses to item 24, leave a one column gap and continue on (changing keys) until you exhaust the items.

At that point your last entry will be a 1, 2, or 3 in column 48.

N.B. At this point, check to ensure that there are gaps in columns 13, 16, 19, 22, 25, 28, 31, 34, 37, 40, 43, 46 and 49.

- Step 18. Leave another gap in column 50

Now for the remaining columns you have to enter the code number for the independent variables listed in the back of the booklet.

To do this you must refer to categorisations used below.

Column No. 51: Code 1. Principal or Head Teacher

(Title)

2. Vice-Principal or First Assistant

3. First Assistant Master or Supervisor of Junior Classes

4. Senior Assistant Mistress

5. Head of Department. Sole Teacher

6. Assistant Master/Mistress

7. Specialist Teacher

0. No entry.

Column No. 52: N.B. For this response select the highest qualification (Academic listed according to the ranking below.

Qualification) Code 1. Trade or technical certificate

2. Trained Teachers' Certificate

3. Undergraduate diploma

4. Bachelors degree

5. Bachelors degree plus diploma

6. Double degree

7. Masterate

8. Masterate with hon. (1 or 2)

9. Doctorate

0. No entry.

Columns No. 53/54: N.B. Code actual number of years using two columns.

(Teaching Thus 21 years = 2 in column 53 and 1 in column 54.

experience primary) If less than 10 record 0 in column 53.

(Put 00 if no primary teaching.)

Columns No. 55/56:

(Teaching experience secondary) As above. (Put 00 for no experience)

Columns No. 57/58:

(Teaching experience tertiary) As above. (Put 00 for no experience)

Columns No. 59/60: N.B. If 'no' put 01. If 'yes' refer to code below.

(Specialist areas) N.B. Use two columns.

- |                         |                              |
|-------------------------|------------------------------|
| Code 01. None           | 11. Phys. Education          |
| 02. English             | 12. Homecraft                |
| 03. Other Languages     | 13. Metalwork/Wood/Eng.      |
| 04. History             | 14. Commercial/Typing/Bookk. |
| 05. Geography           | 15. Liberal studies          |
| 06. Maths               | 16. Remedial reading         |
| 07. Art & Craft         | 17. Special class            |
| 08. Science             | 18. Counselling & Guidance   |
| 09. Agric./Horticulture | 19. Administration           |
| 10. Music               | 20. Other                    |
|                         | 00. No entry.                |

Columns 61-68: N.B. One column is provided for each of the following

(Teaching level) responses, S.4, F.1, F.2, F.3, F.4, F.5, F.6, F.7 in that order. Each is to be treated as a yes - no response.

Code 1. Yes

2. No.

61 through 68. Also note that F.1, F.3 and F.5 were not provided for in the questionnaire but we think respondents may have written them in.

Columns 69/70: N.B. Code actual age using two columns. Thus 37 = 3 in (Age) column 69 and 7 in column 70.

Column 71: Code 1. Male  
(Sex) 2. Female  
0. No entry.

Column 72: Code 1. European  
(Racial Background) 2. Maori  
3. Other Polynesian (Cook Is., Samoan, Niuean)  
4. Fijian  
5. Chinese  
6. Indian  
7. Other  
0. No entry

Columns 73/74: Code 01. Church of England 09. L.D.S. (Mormon)  
(Religion) 02. Presbyterian 10. Salvation Army  
03. R.C. (incl. Catholic) 11. Church of Christ  
04. Methodist 12. Ringatu  
05. Baptist 13. Atheist  
06. Brethren 14. None  
07. Protestant (undefined) 15. Other  
08. Katana 00. No entry

Column 75: Code 1. Single  
(Marital Status) 2. Married  
3. Separated or divorced  
4. Widowed  
5. No entry.

N.B. Ignore item 11.

Column 76: Code 1. 1 year  
(Teacher Training) 2. 2 years  
3. 3 years  
4. 4 years  
5. More than four years  
9. None  
0. No entry.



Column 77.                      Code 1. Very satisfied  
(Satisfied with                2. Moderately satisfied  
teaching)                      3. Neither satisfied nor dissatisfied  
                                 4. Moderately dissatisfied  
                                 5. Very dissatisfied  
                                 0. No entry.

Column 78.                      Code 1. Very likely  
(Leaving profession)        2. Quite likely  
                                 3. Uncertain  
                                 4. Quite unlikely  
                                 5. Very unlikely

Step 20. N.B. The responses that the teachers gave to questions about parents, pupils and other teachers have not been entered yet. This has to be done now.

Open the questionnaire at the first page and superimpose coding key # 3.1 (the first of the green ones).

Step 21. Begin a new I.B.M. row and put in column 1 the number 3 (3rd card) then add in columns 2 through 8 the same numbers as in the line (row) above. Omit columns 9 and 10.

Step 22. Take the set of responses appearing in the first aperture (they will be A's or B's---three in all). Assign to each A or B the appropriate code number from the key and then enter these three numbers starting with the top one first in columns 11, 12 and 13. Leave a gap in column 14.

Step 23. Continue in this fashion using the keys 3.1, 3.2, 3.3, 3.4. in order as you turn the page, BUT GO STRAIGHT ON TO NEXT ITEM WHEN YOU GET TO COLUMN 77. DO NOT LEAVE A GAP. You will find that when you get to column 80 you will have completed the three entries for item 18.

Step 24. Start a new row on the I.B.M. sheet. Put 4 (4th card) in the first column. Repeat numbers in columns 2-6 above, leave gaps in columns 9 and 10.

Step 25. Record sets of three responses as previously leaving a gap after each three EXCEPT IN COLUMN 78 (i.e. run responses to items 35 and 36 together.) When you get to column 80 you will have entered the last answer in item 36.

Step 26. You have now finished the questionnaire (finally).  
Please undertake the following checks:

1. Ensure that for the last two cards (rows) there are gaps in columns: 14, 18, 22, 26, 30, 34, 38, 42, 46, 50, 54, 58, 62, 66, 70, 74.
2. Ensure that you have four rows completed.
3. Check that the first four entries in each row are, in order from the top, 1, 2, 3, 4.
4. Put a circle round the ID (identification) number on the questionnaire.
5. Put the questionnaire (well) to the side.

You are now ready to go through the whole damn business again with the next questionnaire.

After a while you will get quite quick at it.

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