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### *Teachers' influence on the self-concept of pupils of different ethnic origins*

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ABSTRACT

PETER A. GREEN

of thesis submitted to the University of Durham for the degree of  
Doctor of Philosophy, June, 1983.

TEACHERS' INFLUENCE ON THE SELF-CONCEPT  
OF PUPILS OF DIFFERENT ETHNIC ORIGINS.

The background of this research is the concern about the lack of educational progress amongst pupils of some ethnic minority groups notably those of West Indian origin and expressed disquiet about the influence of their teachers' ethnocentrism. Central to its design is a new form of multi-ethnic classroom interaction analysis which identifies the extent to which Flanders' ten interaction categories are used with the whole class or with individual boys and girls of European, Asian or West Indian origins. Accepting the influence of pupils' self-concept on academic achievement this research investigates associations between the level of the pupils' self-concept and the extent teachers use different forms, modes, patterns and styles of teaching when interacting with boys and girls of European, Asian or West Indian origins and investigates the influence of the teachers' personal characteristics, their degree of ethnocentrism and the types of attitudes held about education. The sample consists of 70 teachers and their 1,814 pupils in 6 schools of 2 Local Education Authorities. The results show that men and women teachers give strong preference to individual teaching and differ in the emphases they give to the use of different modes of teaching with boys and girls of different ethnic origins. The evidence presented shows some associations between certain modes of teaching as used by men and women teachers and the self-concepts of their pupils. Ethnocentrism amongst the teachers is used as a major variable and the use of the ten modes of teaching is analysed in respect of two extreme tolerance groups. The research provides empirical evidence which suggests that teachers' ethnocentrism may be an influential factor in the multi-ethnic classroom and indicates that highly tolerant and highly intolerant teachers give very different emphases to certain modes of teaching some of which are associated with the self-concept level of their ethnically different pupils. After presenting evidence to show that teachers' attitudes towards education tend to foster certain teaching styles, which appear to be associated with the pupils' self-concepts, the implications of the research are discussed and new areas of research proposed.

TEACHERS' INFLUENCE ON THE SELF-CONCEPT  
OF PUPILS OF DIFFERENT ETHNIC ORIGINS.

by

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Thesis submitted to the University of Durham  
for the degree of  
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School of Education

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## THE PROBLEM TO BE INVESTIGATED

Throughout the nineteen-fifties and nineteen-sixties Britain, with its expanding economy and the resulting material wealth and prosperity of its people, stood in vivid contrast to some other countries of the British Commonwealth where, in the less industrially developed nations, unemployment and poverty were widespread. This disparity between the rich leader of the Commonwealth and its poorer associates was further accentuated by the substantial social changes which took place in post-war Britain. Developments, particularly in the provision of social services, medicine and education, brought rapid benefits to many people in Britain but most especially to those with meagre resources of their own. To those indigenous peoples of India, Pakistan and the Caribbean, struggling to escape the trap of poverty so as to achieve in reality their concept of a better life, the apparent free provision in Britain of resources which could bring about this change did not go unnoticed. Furthermore, as they were members of the British Commonwealth holding British citizenship, strong claims were made to a share of the benefits which Britain was then enjoying. Such claims were difficult for any Government to refute with integrity and so seen from afar, often influenced by recommendations from fellow-countrymen already established in the country, Britain seemed to offer to the masses the Utopian solution to their almost intractable problems.

Those who were well informed about the means and the possibilities of emigration and who had the necessary initiative, finance and family support undertook the formidable journey to Britain in large numbers. As a result of this sudden influx there was a very rapid increase in the numbers of children from other Commonwealth countries

attending schools in England and Wales. During the seven year period from 1966 to 1972, when figures based on the ethnic origin of pupils were collected, the numbers of immigrant pupils rose from 148,000 to 279,872 (Appendix 1). Of these, children of West Indian origin consistently constituted the largest group representing, in 1972, 36.4% of all immigrant pupils in schools (Appendix 2). Children of Indian origin were the next largest category representing, in 1972, 20.1% of all immigrant pupils whilst, in the same year, those of Pakistani origin were 10.9% of all immigrant children thus constituting an Asian group of 31% in the maintained schools of England and Wales (Appendix 3).

Following much public disquiet about the use to which information based on children's ethnic origins might be put the collection of these data was discontinued after the 1972 returns to the Department of Education and Science and this has resulted in a lack of reliable information on which to base any estimate of the present numbers of children of Asian and West Indian origin in schools. This obscurity has brought its own difficulties which are recognised in the report of the Rampton Committee which has now recommended that, as from 1st. September, 1982, "The D.E.S. should reincorporate the collection of information on the ethnic origin of all pupils in schools into its annual statistical exercise and should introduce ethnic classifications into its school leavers survey"<sup>(1)</sup>. Until accurate information is again available the best estimates suggest that, although the policies of successive Governments and the declining economic attraction of Britain brought a considerable slowing down of immigration during the nineteen-seventies, the numbers of children from Asian and West Indian families admitted to

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1. Rampton, Anthony, West Indian children in our schools.  
 (Chairman), H.M.S.O. Cmnd. 8273. 17th June, 1981, p.84.

schools, according to reports from Local Education Authorities and teachers, shows little sign of declining. Numbers are being maintained largely because schools are admitting those children born in Britain to parents who themselves had emigrated and are by now established residents. Twenty years of large-scale immigration introduced a whole generation and so it is reasonable to assume that the presence of children of Asian and West Indian descent in the schools of Britain will be perpetuated.

The number of children entering schools in Britain as a result of immigration, substantial though it was, constituted only a very small proportion of the total number of children in schools (Appendix 1). However, those who emigrated from India, Pakistan and the Caribbean tended to settle in a very limited number of large towns and cities and within these towns and cities they found accommodation available only in severely restricted areas. This residential concentration inevitably led to a situation where schools serving these areas had to admit large numbers of immigrant children who then formed a substantial proportion of the pupils in any one school. Although in subsequent years there was some movement of immigrant populations the pattern of settlement has tended to remain fairly static and so those schools affected by early multi-ethnic settlement have continued to admit a high proportion of pupils of Asian and West Indian origins.

Confronted with large classes composed of children from many different ethnic backgrounds teachers soon began to experience severe difficulties. Very little indeed was known about educating immigrant

minorities<sup>(1)</sup> (which, in some classes, were immigrant majorities) alongside indigenous children for whom the education system was developed and within which methods and practices had evolved relevant to English society. Even as late as 1969 Vernon<sup>(2)</sup> was drawing attention to the fact that little research had been undertaken to investigate difficulties relating to the education of West Indian children in England. He also gave expression to the climate of opinion prevailing at that time when he wrote of immigrant pupils that "it is widely recognised that children of school age have considerable difficulties in adjusting to the unfamiliar conditions of English schooling". Black children were expected to fit into white schools and educational difficulties were almost invariably identified as immigrant problems.

Not surprisingly teachers were primarily concerned with what they saw as the immediate problems and focused attention upon the inadequate command of English of many immigrant pupils. Projects designed to provide teachers with materials to facilitate the teaching of English to those pupils of Asian and West Indian descent were conducted at the Universities of Leeds<sup>(3)</sup> and Birmingham<sup>(4)</sup>. Locally many

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| 1. Goldman, R.J. & Taylor, F.,                 | Coloured immigrant children: a survey of research studies and literature on their education and problems in Britain. <u>Educational Research</u> , Vol.8; No.3; June 1966; pp.163-183. |
| 2. Vernon, P.E.,                               | <u>Intelligence &amp; cultural environment.</u> Methuen, 1969, p.169.  |
| 3. Derrick, June,                              | <u>Teaching English to Immigrants.</u> Longmans, 1966.   |
| 4. Wight, James, Worsley, F.J. & Norris, R.A., | <u>Concept 7-9.</u> Arnold for Schools Council, 1972.  |

Education Authorities established reception centres where much of the work was concentrated upon language development but despite these and similar efforts the Community Relations Commission in its evidence in 1976 to the Select Committee on Race Relations and Immigration stated, "So far research and development projects on the language needs of immigrant pupils have not taken us very far"<sup>(1)</sup>. The very obvious and immediate difficulties created by language of the classroom tended to conceal other concerns which preoccupied teachers of multi-ethnic classes and in research undertaken in schools with large numbers of children of West Indian origin Green<sup>(2)</sup> reports that his sample of teachers were particularly concerned about discipline, personal behaviour, social behaviour, low levels of intelligence, racial prejudice and a reluctance to adjust to acceptable formal classroom behaviour. Such an emphasis on problems attributable to children may indicate that teachers were feeling very insecure in their changing pattern of work and perhaps even saw immigrant children as a threat to their professional competence and personal security.

The voice of a wider society was heard through politicians, administrators, social-workers, churchmen and parents many of whom were, by the mid-nineteen-seventies, commenting about the apparent lack of educational progress particularly amongst those pupils of West Indian origin. The House of Commons Select Committee on Race Relations and

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| 1. Community Relations Commission, | <u>Evidence from the Community Relations Commission to the Select Committee on Race Relations and Immigration. 1976, p.16.</u> |
| 2. Green, P.A.,                    | <u>Attitudes of Teachers of West Indian Immigrant Children.</u><br>Unpub. M.Phil. thesis, Univ. of Nottingham. 1972, p.67.     |

Immigration, in their report dated 17th February, 1977, drew attention to ".....the relative under-achievement of West Indian children....." and recommended that ".....as a matter of urgency, the Government institute a high level and independent inquiry into the causes of the under-achievement of children of West Indian origin in maintained schools and the remedial action required"<sup>(1)</sup>. The urgency of the situation seems to have been disregarded by civil servants and Government as it was fourteen months later, in April 1978, before the publication of a White Paper<sup>(2)</sup> in which there was a commitment to set up the enquiry recommended by the Select Committee. It took a further sixteen months to put that commitment into practice: in July 1979 the Committee of Inquiry into the Education of Children from Ethnic Minority Groups, under the chairmanship of Mr. Anthony Rampton, was constituted. Within its terms of reference the Committee was instructed to ".....give early and particular attention to the educational needs and attainments of pupils of West Indian origin and to make interim recommendations as soon as possible....."<sup>(3)</sup>. Almost four years after the House of Commons Select Committee had recommended urgent action the educational press, in January 1981, was commenting that ".....the Rampton Committee (is) to produce an interim report on West Indian children soon"<sup>(4)</sup>. "Soon" was to be five months later when, on

1. Select Committee on Race Relations and Immigration: Session 1976-7. H.C. 180-1. H.M.S.O. 1977, Vol.1, paragraph 57, p.xx.
2. The West Indian Community. Observations on the Report of the Select Committee on Race Relations and Immigration. Cmd. 7186. April 1978, p.7, para.24.
3. Anderson, I.G., Councils, Committees and Boards. CBD Research Ltd. Edition 4, 1980, p.80.
4. Doe, Bob, West Indian testing runs into storm. The Times Educational Supplement. 16th January, 1981, No. 3369, p.9.

17th June, 1981, the interim report, 'West Indian children in our schools'<sup>(1)</sup>, was published following a troubled period for the Committee during which the Secretary of State for Education and Science, Mr. Mark Carlisle, dismissed Mr. Rampton as the Committee's chairman replacing him with Lord Swann, an action which brought in its wake resignations from Committee members<sup>(2)</sup>. It was, perhaps with some prophetic wisdom, the Black Peoples Progressive Association and Redbridge Community Relations Council that saw fit, three years earlier, to entitle their joint report on the under-achievement of West Indian pupils 'Cause for Concern'<sup>(3)</sup>: neither time nor Rampton have alleviated that concern which continues to find wide expression in a variety of ways.

Concern about the low level of scholastic achievement by children of West Indian origin, and to a lesser extent children of Asian origin, has been widespread for many years but, as the continuing concern indicates, little effective progress has been made towards resolving the difficulties. Ever since the sensitive contents of a supposedly confidential report compiled by the education officials of Haringey Borough Council in 1969 alleging that English children had a higher level of intelligence than West Indian children and recommending the dispersal of immigrants "to ensure that varying ability ranges were more evenly

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1. Rampton, Anthony,  
(Chairman), West Indian children in our schools. Interim Report of the Committee of Inquiry into the Education of Children from Ethnic Minority Groups.  
H.M.S.O. Cmd. 8273, 17th June, 1981.
  2. Geddes, Diana, Chairman's dismissal brings resignations. The Times, p.4, No. 60,933, 21st May, 1981.
  3. Cause for Concern: West Indian Pupils in Redbridge.  
Black Peoples Progressive Association and Redbridge Community Relations Council, 1978.

distributed among the schools"<sup>(1)</sup>, were given prominence in the national press<sup>(2,3)</sup>, two major factors in the debate can be observed. Firstly, the seriousness of the situation<sup>(4)</sup> and the need for urgent action has directed attention to the macroproblem of scholastic under-achievement in multi-ethnic schools focusing mainly upon children of West Indian origin and this has overshadowed such attempts as have been made to distinguish the component parts of the major problem. The search for a rapid and comprehensive solution appears to have overlooked some of the distinctive features of multi-ethnic education and, furthermore, it also seems to have detracted from the advantages of identifying and investigating contributory problems inherent in the multi-ethnic situation. Secondly, the problem has generally, although not exclusively, been seen as one solely related to, and centred upon, the child's weaknesses, inabilities and failures. This has frequently resulted in children of Asian and West Indian descent being perceived as the sole cause of the difficulties confronting the teacher in the multi-ethnic classroom one consequence of which has been a restriction on the scope of the enquiries undertaken into multi-ethnic education. Despite the resources which have been made available since the observation was first made "What we (still) do not know is what actually happens in the multi-racial classroom between the

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1. Council clash over child intelligence.  
The Times, No. 57,535, 15th April, 1969, p.4.
  2. Mixed-up children.  
The Times, No. 57,540, 21st April, 1969, p.9.
  3. Plea to M.P's in school race dispute.  
The Times, 21st April, 1969.
  4. Townsend, H.E.R., School organisation & the need for research & development. Report on paper given to conference on Training Teachers for a Multi-cultural Society.  
Community Relations Commission, Sept. 1972.

teacher and the children of the many racial groups"<sup>(1)</sup>.

Teaching and learning, to be effective in the multi-ethnic classroom, both require a measure of confidence which is unlikely to be automatically present especially since the rapidly imposed changes have themselves threatened established practices in education and have, in their train, introduced feelings of insecurity. The development of confidence in the classroom relies to a large extent upon the quality of the mutual trust which is built up between the teacher and the child. As the teacher is the dominant person in the relationship its nature will depend to a large extent upon the teacher's attitude towards the child and towards the activity in which they are both engaged. In any multi-ethnic relationship the white teacher's attitude towards the black child of West Indian or Asian descent and towards the white child of European descent is likely to be influenced by the teacher's level of ethnocentrism and we may also expect this to bear upon the interaction which develops between them. Since "any successful classroom has to be based upon a dialogue between students and teachers"<sup>(2)</sup> and because "in many respects a child is taught what he is by being told what his actions 'mean', by their 'effect' on the others"<sup>(3)</sup>, the relationship between pupil and teacher in the multi-ethnic classroom is a major factor which will strongly influence the child's awareness of himself. This awareness,

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1. Green, P.A., Attitudes of Teachers of West Indian Immigrant Children.  
Unpub. M.Phil. thesis Univ. of Nottingham, 1972, p.155.
  2. Kohl, Herbert, 36 Children.  
Penguin Books Ltd., 1973, p.111.
  3. Laing, R.D., Self and Others.  
Penguin Books, 1975, p.156.

once assimilated into the child's concept of himself, becomes an influential element in learning<sup>(1)</sup> and may be a significant factor in the low level of academic-achievement of some children of Asian and West Indian origin.

The research presented in this study investigates the interaction which takes place in the multi-ethnic classroom between the teacher and pupils of European, Asian and West Indian origins. It seeks to reveal any associations which may exist between the extent to which different modes of teaching are utilized and the level of the children's concept of themselves as learners. Additionally the study also indicates where possible associations exist between some personal characteristics of the teachers in the sample, their level of ethnocentrism, their types of attitudes towards education and their use of different teaching modes. The cross-sectional design of the study, which is fully described in chapter three, will inevitably impose certain cautionary constraints in data interpretation although, advantageously, the same research design enables the existing pattern of differences to be accurately described thus revealing something of the dynamics of the multi-ethnic classroom and providing some of the much-needed empirical evidence with which to consider the question, 'Do teachers who are highly tolerant of other ethnic groups teach in a way which is significantly different from those who are highly intolerant?' Furthermore, because of the proven significance of the self-concept to learning any consideration of relative under-achievement also needs to take into account those associations which may exist between the behaviour of the teacher and the

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1. Purkey, W.W.,

Inviting School Success: a self-concept  
Approach to Teaching and Learning.  
Wadsworth Publishing Co. Inc., 1978, pp.22-33.

self-concept in children of the three ethnic categories identified. Such information from empirical research will enable us more accurately to assess the possible influences of different teaching styles and to suggest whether or not children who hold positive self-concepts are to be found more often in classes whose teachers teach in a significantly different way to those teachers who have more children in their classes holding negative self-concepts.

The particular problem of the relationship between the teacher and the pupils in a multi-ethnic class is of special interest because, as we have argued, the interaction between them is likely to be strongly influential in the development of the child's self-concept which, in turn, is a significant component in any consideration of learning. What goes on in the multi-ethnic classroom justifies rigorous and detailed study since the teacher not only teaches subject matter but is also continually transmitting information about the children to themselves. It is not only what the teacher says, or does not say, which is important in the development of the self-concept but also what the teacher does, or does not do. In the stress of classroom activity few teachers make equal demands on, or give equal support to, all the children. This inequality of attention, both in amount and type, if very different between the children, is not likely to go unperceived by them and may be interpreted according to ethnic differences. Even small variations in the distribution of the various modes of teaching, whilst not so obvious and therefore less likely to be perceived either by the teacher or the children, are likely to have an accumulative effect which, because the discrepancies remain undetected consciously, may produce influences no less important to under-achievement than those resulting from more excessive imbalances in teaching easily recognised in classroom.

interaction. It is not difficult to come to the conclusion that professional discrimination will have repercussions on the development of the self-concept of those children involved. Do children in multi-ethnic classes learn something about themselves if they are ignored, or attended to in a particular fashion, more often than their contemporaries? What is the relationship, if any, between the extent and type of attention given to boys and girls of different ethnic origins and the quality of the child's self-concept?

The Rampton Report 'West Indian children in our schools'<sup>(1)</sup> has been criticized for being "long on allegations and short on evidence and convincing analysis"<sup>(2)</sup>. The educational press, in its reviews of the Report, has emphasized the need for research to provide some of the missing evidence through the presentation of "empirical instead of anecdotal evidence of the effect of teachers' racial attitudes on pupils' image of themselves"<sup>(3)</sup>. To provide empirical evidence is useful to our accurate understanding of the extremely complex factors involved in the relative under-achievement amongst children of different ethnic origins but the full potential of this research lies in the possibility, presented by the disclosure of the interaction prevailing in the multi-ethnic classroom, of teachers modifying their classroom behaviour so as to assist the enhancement of the self-concept of children of different ethnic groups.

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1. Rampton, Anthony, (Chairman), West Indian children in our schools.  
H.M.S.O., Cmd. 8273, 17th June, 1981.
  2. Berliner, Wendy, The Guardian,  
29th June, 1981, p.4.
  3. Spencer, Diane, The Times Educational Supplement.  
No.3392, 26th June, 1981, p.10.

In addition to this educational impact of our study there are also important implications for future research in this field. The description of the interaction which actually takes place in the multi-ethnic classroom and the positive associations that are discovered between the variables distinguished provide a detailed map of those areas where further detailed research would most likely prove to be fruitful. It helps to distinguish those elements of the major problem which appear to be most influential in the under-achievement of children of different ethnic origins in the multi-ethnic classroom. However, any researcher reporting associations discovered between variables, and any interpretation of the findings, has to avoid any extrapolation which might imply a direct causal relationship. This cautious approach in no way limits the value of research designed to discover associations: on the contrary it is a necessary first step the results of which point to the way through some of the complexities to the next phase of investigation.

We recognise the difficulties any researcher in this field encounters when attempting to define precisely the categories European, Asian and West Indian. However, for the purposes of this study any attempt to define precise categories on the basis of ethnic characteristics would be of little value as the distinctions between pupils of different ethnic origins with which this research is concerned are those ethnic distinctions which are readily perceived by the class teacher. As there is little opportunity to employ sophisticated and refined categorisation in the average school classroom it is appropriate for this study to use the three major groups European, Asian and West Indian. This form of categorisation also avoids any nationalistic connotations since it relies upon geographical descriptions which extend beyond the boundaries of individual countries. All 'white' skinned

children have been designated European and, following enquiries with head-teachers, there is no reason to suppose that this is not an accurate description. Within the category designated Asian are those children of Indian, Pakistani and Bangladeshi origin including a small number who emigrated to Britain from East Africa. Differences may also, of course, be found between the peoples of the various islands which constitute the West Indies but these differences are not readily perceived by teachers and are not, therefore, of any major consequence to this study so all children of West Indian origin are designated as such. In the classroom colour, facial structure and type of hair provide permanent, easily and immediately recognisable features and it is these distinctions that form the basis of pupil categorisation for this research.

With the benefit of hindsight, accumulated experience and a slowly increasing body of empirical research it is not difficult to assess early efforts to find solutions to under-achievement by children of Asian and West Indian origin as being too naïve. Progress has, nevertheless, been made in recent years mainly through the independent work of individuals conducting small-scale research. This present study into the teachers' influence on the self-concept of pupils of European, Asian and West Indian origins contributes a further dimension to our knowledge of multi-ethnic education in Britain. Recognising the sensitive field of study in which we are engaged assurances of anonymity have been given at every stage of the research and this has been strictly observed in respect of individual teachers, children, groups, schools and authorities none of which are in any way identifiable in this work.

## A SURVEY OF RELATED LITERATURE AND RESEARCH

During the early days of mass immigration to Britain there was clearly a myopic lack of critical perception amongst some observers of the difficulties which children from overseas were facing in their education in British schools. It was written of West Indian children that they "present no real problems to the educational authorities. They speak English naturally and fluently as their mother tongue, and they are normal children with a varying range of intelligence and educational ability, in exactly the same way as local English children"<sup>(1)</sup>. These "normal children" quickly found themselves in some very abnormal situations the influence of which seems to have been overlooked for Glass and Pollins commented that "most important, there is of course no language barrier" and they go on to say that "as West Indians can establish communication immediately, they have the advantage that they are not categorised as outsiders"<sup>(2)</sup>. Time and experience was to prove otherwise and as the difficulties of the multi-ethnic classroom became increasingly apparent researchers began to investigate problems of language<sup>(3)</sup>, intelligence testing<sup>(4)</sup>, child rearing<sup>(5)</sup> and cultural

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1. Hill, Clifford, How Colour Prejudiced is Britain?  
Gollancz, 1965, p.204.
  2. Glass, R. &  
Pollins, H., The Newcomers: The West Indian in London.  
Centre for Urban Studies and Allen Unwin,  
1960, pp.64-65.
  3. Wight, J. &  
Norris, R.A., Teaching of English to West Indian Children.  
Schools Council Project; Report 2;  
University of Birmingham, April, 1969.
  4. Houghton, V.P., Intelligence Testing of West Indian and  
English Children.  
Race, Vol.8; No.2; 1966; pp.147-156.
  5. Hood, Catriona, Children of West Indian Immigrants: a study of  
one-year-olds in Paddington.  
Oppe, T.E.,  
Fless, I.B. &  
Apte, Evelyn,  
Institute of Race Relations, 1970.

differences<sup>(1)</sup>. Studies into the development of the self-concept of children of different ethnic origins attending schools in Britain found no place in these early enquiries and it was not until after Hill<sup>(2)</sup>, in 1970, had reported the results of his study of adolescent English and West Indian children in the West Midlands that any keen and persistent interest in the self-concept of children of different ethnic descent was seen amongst researchers. Some dozen studies in Britain were reported during the nineteen-seventies and the fact that little substantive, and even less conclusive, evidence has emerged has not been helped by the doubts which have been expressed<sup>(3)</sup> about the quality and rigour of some of the studies<sup>(e.g.4;5)</sup> some of which employed methods of enquiry which involved children in subtle distinctions of language. What is also to be regretted in some of these studies, and guarded against, is the tendency of some investigators to couch their findings in evaluative terms. We find reports containing statements that some subjects "display a disappointingly low level of knowledge";<sup>(6)</sup> that "West Indian

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1. Bhatnagar, Joti K., A study of adjustment of immigrant children in a London School.  
Unpub. Ph.D. thesis; Univ. of London, 1969.
  2. Hill, D., The attitudes of West Indian and English Adolescents in Britain.  
Race 11, 1970.
  3. Stone, M., The Education of the Black Child in Britain.  
Fontana, 1981, p.52 and p.60.
  4. Bagley, C. & Coard, B., Cultural Knowledge & Rejection of Ethnic Identity in West Indian Children in London.  
Race and Education Across Cultures (Verma, G. & Bagley, C. Eds.), Heinemann, 1975.  
pp.322-331.
  5. Milner, D., Children and Race.  
Penguin Books, 1975.
  6. Bagley, C., & Coard, B., Op. cit.  
p.328.

girls have significantly better self-esteem than West Indian boys"<sup>(1)</sup> and yet another researcher writes of a measured self-concept as being "poorer"<sup>(2)</sup> than a contrasting one. The researcher ought to report his findings objectively and in this field it would, quite clearly, be possible simply to record higher or lower self-esteem and to ignore one's own feelings about the levels of knowledge demonstrated in a given test. However, in spite of the apparent lack of coherence in the findings from these studies, and the criticism which has been levelled at some, they have served to direct the attention of educators and researchers to an important area of investigation. They also indicate methodological problems and distinguish further associated areas of study and they may encourage some replication in order to substantiate or refute earlier findings.

The survey which follows is limited to an introduction to literature and research which has a direct bearing on this present study into the teachers' influence on the self-concepts of pupils of different ethnic origins. Where the results of studies not mentioned here can be more directly compared and contrasted with our own work this is done in those chapters reporting the results of this present research. For the sake of clarity this survey of related literature and research is

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| 1. | Bagley, C.,<br>Mallick, K. &<br>Verma, G., | Pupil Self-esteem: A study of Black and White Teenagers.<br><u>Race, Education and Identity.</u><br>(Verma G. and Bagley, C. Eds.)<br>Macmillan, 1979. p.187.   |
| 2. | Jones, P.,                                 | An Evaluation of the Effect of Sport on the Integration of West Indian School Children.<br>Unpub. Ph.D. thesis. University of Surrey 1977.<br><u>The Education of the Black Child in Britain.</u><br>Stone, Maureen, Fontana, 1981. p.57. |

presented in four sections covering the self-concept, classroom interaction, ethnocentrism and teachers' opinions about education.

The Self-concept:

The notion of the 'self' has a long and chequered history in psychological studies and has, throughout the past ninety years or so, attracted a variety of definitions and refinements. In the latter years of the nineteenth century and the early part of the twentieth century the salience of the self, both as a theoretical and an empirical construct, might have been disregarded but for the work of James<sup>(1)</sup>, Cooley<sup>(2)</sup> and Mead<sup>(3)</sup>. The early explorations of these psychological pioneers tended to emphasize the social basis of the self-concept but as psychology emerged from the embrace of philosophy what has found a measure of acceptance amongst psychologists is a two component formulation which distinguishes the conscious and the unconscious elements of the self-concept. The conscious or phenomenological<sup>(4)</sup> self, the 'I', is described by Argyle as "the conscious subject and active agent in behaviour"<sup>(5)</sup> whereas the unconscious or non-phenomenological<sup>(4)</sup> self, the

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| 1. | James, W.,    | <u>Principles in Psychology.</u><br>Holt, 1890.  |
| 2. | Cooley, C.H., | <u>Human Nature and the Social Order.</u><br>Scribners, 1902.  |
| 3. | Mead, G.H.,   | <u>Mind, Self and Society.</u><br>University of Chicago Press, 1934.   |
| 4. | Lewis, T.,    | The Self-concepts of adolescent educationally<br>subnormal boys.<br><u>Educational Research</u> , 15, 1, Nov.1972, p.16. |
| 5. | Argyle, M.,   | <u>Social Interaction.</u><br>Methuen, 1969, pp. 356-393.  |

'me', is that which "is reacted to by others" and given a "degree of esteem"<sup>(1)</sup>. Such an analysis is not without its critics<sup>(2)</sup> and other distinctions are postulated such as the differentiation between a developmental and a social self made by Webster and Sobieszek<sup>(3)</sup> who, whilst adopting an interactionist view of the self thus making it "social in origin", accept the developmental self as a constellation of personal characteristics which are a product of maturation. For them the self-concept is "who an individual thinks he is and the unique traits he believes himself to possess"<sup>(4)</sup> which is not far removed from Jersild's "composite of thoughts and feelings which constitute a person's awareness of his individual existence and his conception of who and what he is"<sup>(5)</sup>. Other attempts to clarify the notion of the self emphasize its affinity "with the concept of identity"<sup>(6)</sup>, relate it closely, though not precisely, to the Freudian ego<sup>(7)</sup> whilst others stress the process and ignore the product<sup>(8)</sup>. As there is no universally accepted definition

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1. Argyle, M., Social Interaction.  
Methuen, 1969, pp.356-393.
  2. Kerlinger, F.W., Foundations of Behavioural Research.  
Holt, 1966.
  3. Webster, Jnr., Murray & Sobieszek, Barbara, Sources of Self Evaluation.  
Wiley, 1974. p.vii.
  4. Webster, Jnr., Murray & Sobieszek, Barbara, Op. cit. p.7.
  5. Jersild, Arthur T., In Search of Self.  
Teachers College Press, Columbia University,  
1952, p.9.
  6. Stevens, Richard, Integration and the Concept of Self.  
The Open University, 1976, p.49.
  7. Hamachek, Don E., Encounters with the Self.  
Holt, Rinehart & Winston, 1971, p.7.
  8. Shrauger, J.S. & Schoeneman, T.J., Symbolic Interactionist View of Self-concept:  
Through the Looking Glass Darkly.  
Psychological Bull. 86, 3, 1979, pp.549-573.

of the self-concept which can be utilized for the purposes of this present study the view is taken that the self-concept is a mental image which has been established as the result of the knowledge a child has of himself and which is subject to modification through further learning.

The view that "research in psychiatry and psychology would seem to indicate that much of the learner's ability to use his power to learn is determined by his concept of self"<sup>(1)</sup> has been vigorously attacked by Stone<sup>(2)</sup> but there is, nevertheless, a consistency in the results of empirical studies linking the self-concept and achievement<sup>(3)</sup> so a vital question for those engaged in education is, 'What are the major determinants of the self?' If these determinants can be clearly identified and influenced then a powerful element in the educative process would become available to both teachers and parents. The teacher, however, has to take over what has been earlier established but as a dynamic and evolving structure<sup>(4)</sup>, which is constantly being modified through the processes of perception, interpretation, evaluation and internalization, the child's self develops as his world expands. For any child a major element in this process of expansion of his world is the school where, for pupils of different ethnic origins, the multi-ethnic classroom provides an influential context in which the development of the

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1. Yamamoto, Kaoru, The Child and His Image.  
Houghton Mifflin, 1972, p.55.
  2. Stone, M., The Education of the Black Child in Britain.  
Fontana, 1981, p.26.
  3. Brownfain, John J., Stability of the Self-concept as a Dimension of Personality.  
Jnl. Ab. & Soc. Psychol., 47, July 1952,  
pp.597-606.
  4. Rogers, Carl, On Becoming a Person.  
Houghton Mifflin, 1961.

child's image of himself as a learner takes place. For the development of a positive self-concept as a learner an emotional security born of a sound relationship with the teacher, as a very significant person, is of crucial importance to boys and girls of different ethnic origins.

There is, though, some evidence which suggests that the domestic stability required for such relationships to mature is often absent from the homes of those of West Indian origin<sup>(1)</sup>. Furthermore, a number of studies<sup>(2,3)</sup> have indicated that West Indian fathers exercise a very strict code of harsh discipline in respect of their children which, Washburn<sup>(4)</sup> claims, is detrimental to the development of a positive self-concept. As far as pupils of Asian origin are concerned Jeffcoate<sup>(5)</sup> maintains that "a derogatory personal identity is less easily imposed on Asian children, whose firmer and clearer cultural foundation acts as a protective bulwark". In this he is supported by Little<sup>(6)</sup> who considers that they "bring to school a positive sense of their own worth" and this he contrasts to the "West Indians, whose cultural

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1. Bhatnagar, Joti K., Immigrants at School.  
Cornmarket Press, 1970, p.101.
  2. Blake, Judith, Family Structure in Jamaica.  
Free Press of Glencoe, 1961.
  3. Clarke, Edith, My Mother who Fathered me.  
Allen and Unwin, 1957.
  4. Washburn, W.C., Patterns of protective attitudes in relation to differences in self-evaluation and anxiety level amongst high-school students.  
Calif. Jnl. Educ. Res., 13, 2, pp.84-94.1962.
  5. Jeffcoate, Rob., Curing a Social Disease.  
The Times Educational Supplement, 5th Dec. 1975. p.23.
  6. Little, A.N., Educational Policies for Multi-racial Areas.  
Goldsmith's College Inaugural Lecture, 1978. p.17.

background is essentially a variant of the dominant culture which to no small extent disparages and even rejects his colour". Despite the attention which has been directed towards the pressures on families of Asian and West Indian origin<sup>(1)</sup> scant consideration has been given to their influence upon the development of the self-concept in their children.

Although there is little, if any, disagreement about the importance of early childhood experiences in the development of the self-concept the permanency of such influences on the self-concept of black children has been questioned by Tedeschi and Lindskold<sup>(2)</sup>. They draw attention to the changes which have brought to black Americans "a new sense of pride and positive evaluation" and suggest that because of the rapidity of the change "child rearing may not have as permanent an effect on the development of the self-concept as many psychologists have supposed". Whether or not such a suggestion can be justified on the evidence available is questionable but what may be observed is that Tedeschi and Lindskold are not alone in accepting the malleable nature of the self-concept. The vocabulary is extensive: Piaget writes of "progressive construction"<sup>(3)</sup>; Maslow of "self-actualization"<sup>(4)</sup>; Nash comments that "children are continually engaged in forming a concept of themselves"<sup>(5)</sup>;

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| 1. | Wedge, P. &<br>Prosser, H.,        | <u>Born to Fail?</u><br>Arrow Books, 1973.   |
| 2. | Tedeschi, J.T. &<br>Lindskold, S., | <u>Social psychology, interdependence,<br/>interaction and influence.</u><br>John Wiley, 1976. |
| 3. | Piaget, Jean,                      | <u>The Origin of Intelligence in the Child.</u><br>Penguin Books, 1977. pp.157-158.            |
| 4. | Maslow, A.H.,                      | <u>Motivation and Personality.</u><br>Harper and Row, 1954. pp.203-228.                        |
| 5. | Nash, Roy,                         | <u>Classrooms Observed.</u><br>Routledge and Kegan Paul, 1973. pp.101-102                      |

Rogers talks of "becoming"<sup>(1)</sup> and Erikson deals "with a process"<sup>(2)</sup>. Such flexibility, surrounding the relatively stable core of the self<sup>(3)</sup>, places a formidable burden of responsibility upon the professional shoulders of the school-teacher especially when it is recognised that "the school is second only to the home in determining an individual's attitudes of self-acceptance and self rejection"<sup>(4)</sup>.

By the time the child arrives in school the self-concept, learned through experiences centred mainly in the family, is established. The child has assessed his worth within a confined value structure and a restricted social world in which he has discovered himself mainly through the related eyes of his parents and siblings. School suddenly expands his world with a consequent diminishing of the family influence and a wider and more confusing range of antecedents of the self. In the classroom and the playground children of different ethnic groups will "become aware of things about themselves that previously they had taken for granted"<sup>(5)</sup> and will gradually come to use "the values by which individuals in (their) position are judged"<sup>(6)</sup> to assess their own worth.

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| 1. | Rogers, C.                   | <u>On Becoming a Person.</u><br>Houghton Mifflin, 1961. pp.163-198.   |
| 2. | Erikson, E.H.,               | <u>Childhood and Society.</u><br>Penguin Books, 1965. p.22.   |
| 3. | Brehm, J.W.&<br>Cohen, A.R., | <u>Explorations in Cognitive Dissonance.</u><br>Wiley, 1962.  |
| 4. | Mistry, Z.D.,                | <u>A study of the self-picture as held by<br/>groups of adolescent girls, prior to, and<br/>after school leaving age.</u><br>Unpub. M.A. thesis, Univ. of London, 1960. |
| 5. | Banton, M.,                  | <u>The Idea of Race.</u><br>Tavistock Publications, 1977, p.144.  |
| 6. | Davey, A.,                   | Racial Awareness in Children and Teacher<br>Education.<br><u>Education for Teaching</u> , 1975, No.97. p.28.  |

That the classroom teacher is "instrumental during the years most critical in the formulation of the self-concept"<sup>(1)</sup> is a view strongly supported by Lunn<sup>(2)</sup> who stresses the importance of the quality of the relationship between the teacher and individual children. Headteachers also "not only serve to enhance or diminish the child's evaluation of himself but will also impart to the pupils in their charge a self-image which reflects (their) highly subjective evaluation of the pupils"<sup>(3)</sup>. Staines<sup>(4)</sup> provides empirical evidence to show that pupils' self-concept can be reshaped by the classroom teacher and in this he is supported by the findings of Zahran<sup>(5)</sup>. Undoubtedly the teacher in the classroom is a highly significant source of influence on the pupils' self-concept especially since it is the teacher who will, to a very large extent, initiate and control the interaction which takes place. Despite the development of new strategies in recent years the processes of education and social control in the classroom are still orally dominated by the teacher and the language of interaction becomes a means of appraisal by the teacher and a guide for self-evaluation by the child: in the words of Laing, "identity is reached and sustained two-dimensionally, it requires recognition of oneself by others as well as the simple recognition one

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1. Yamamoto, Kaoru, The Child and His Image.  
Houghton Mifflin, 1972, p.117.
  2. Lunn, J., Streaming in the Primary School.  
NFER Publishing Co. 1970.
  3. Palfrey, C.F., Headteachers' Expectations and their Pupils' Self-concepts.  
Educational Research, Vol.15, No.2, Feb.1973,  
p.127.
  4. Staines, J.W., The self-picture as a factor in the Classroom.  
Brit. Jnl. Educ. Psychol, 28, 1958, pp.97-111.
  5. Zahran, H.A.S., The Self-concept in the psychological guidance of adolescents.  
Brit. Jnl. Educ. Psychol. 37, 2, June 1967.  
pp.225-239.

accords oneself"<sup>(1)</sup>.

Children of Asian and West Indian origins, living for some twenty-five hours a week in multi-ethnic (but, nevertheless, 'English') schools, may face some severe difficulties in establishing a viable identity. Many black people, both immigrants and their children,

shared "their deep uncertainty about their answer to the question, 'Who am I?'" with the authors of 'The New Black Presence in Britain - A Christian Scrutiny' and parents posed the question, "How should we encourage our children to see themselves - as Jamaicans, West Indians, Blacks, or British, or what?"<sup>(2)</sup>. Such questions recognise the

confusion which exists and the difficulty in establishing a coherent self-concept especially when established models are not available to the child. What should take preference, ethnic origin, nationality or

colour? In the multi-ethnic classroom the visual perception of colour is constantly emphasized as it contrasts with other skin-colours and where it emerges in a "social context which assigns values to the perception of colour"<sup>(3)</sup>.

Seward's claim is supported by evidence from a number of studies including those of Clark and Clark<sup>(4)</sup> and of Goodman<sup>(5)</sup> in America

1. Laing, R.D., The Divided Self.  
Penguin Books, 1965, p.138.
2. The New Black Presence in Britain - A Christian Scrutiny.  
The British Council of Churches, April, 1976, p.21.
3. Seward, G., Psychotherapy and Culture Conflict.  
Ronald Press, 1956, p.129.
4. Clark, K.B. & Clark, M.P., Racial Identification & preferences in Negro Children.  
Readings in Social Psychology, (Eds: Newcomb, T.M. & Hartley, E.L.) Holt, 1947.
5. Goodman, M.E., Race Awareness in Young Children.  
Collier-Macmillan, 1964.



Classroom interaction analysis:

During the forty-two years since Anderson<sup>(1)</sup> first generated active interest in codifying the general behaviour observable in the classroom only slow progress has been made towards developing any sophisticated research technique designed to record accurately classroom interaction. Further studies in the early nineteen-forties with colleagues at Stanford University of teachers' classroom personalities led to an increase of interest in the possibilities of classroom interaction analysis which resulted in Withall<sup>(2)</sup> devising a categorisation of verbal behaviour. Some fifteen years later Flanders<sup>(3)</sup> developed the ten-category schedule of verbal communication which has been modified for use in this present research. In more recent years interest in classroom interaction analysis has spread east across the Atlantic and Wragg<sup>(4)</sup> has advocated its use as a feedback system for student teachers and Nash<sup>(5)</sup> has used classroom interaction analysis to study the behaviour of teachers and children in classrooms. A number of categorisations

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1. Anderson, H.H.,            The Measurement of Domination and of Socially Integrative Behaviour in Teachers' Contacts with Children.  
Child Development, 10, 1939, pp.73-89
  2. Withall, J.,              The Development of a Technique for the Measurement of Social-Emotional Climate in Classrooms.  
Jnl. of Experimental Education, 17, 1949.
  3. Flanders, Ned,            Teacher Influence, Pupil Attitudes and Achievement.  
U.S. Government Printing Office, 1965.
  4. Wragg, E.C.,              Interaction Analysis as a Feedback System for Student Teachers.  
Education for Teaching, Spring 1970, 81, pp.38-47.
  5. Nash, Roy,                Classrooms Observed.  
Routledge & Kegan Paul, 1973.

have been developed over the years by those working in this field<sup>(1,2)</sup> and Westbury and Bellack<sup>(3)</sup> provide a comprehensive survey of the work accomplished in America but until this present study there appears to have been no attempt to distinguish the ethnic and sex components of interaction in the multi-ethnic classroom in Britain.

Why it is important to study multi-ethnic classroom interaction in the Primary School in relation to the development of the self-concept is clearly demonstrated by an analysis of the findings of many studies. It has been shown by Davidson and Lang<sup>(4)</sup> that during the Primary School years there is a positive correlation between the child's self-concept and the child's perception of his teacher's feelings towards him. Other studies clearly indicate that the perception of the behaviour surrounding a child is interpreted and internalized to become part of the child's evaluation of himself<sup>(5,6)</sup> so whilst still in its very formative state the

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| 1. Amidon, E.J. & Hough, J.B.,       | <u>Interaction Analysis: Theory, Research and Application.</u><br>Addison-Wesley, 1967.  |
| 2. Bales, R.F.,                      | <u>Interaction Process Analysis: A Method for the Study of Small Groups.</u><br>Addison-Wesley, 1950.  |
| 3. Westbury, Ian & Bellack, Arno A., | <u>Research into Classroom Processes: recent developments &amp; next steps.</u><br>Teachers College Press, Columbia University, 1971.  |
| 4. Davidson, Helen & Lang, Gerhard,  | Children's perceptions of their Teachers' Feelings Toward Them Related to Self Perception, School Achievement and Behaviour.<br><u>Jnl. Exper. Educ.</u> , 29; 1960, pp.107-118. |
| 5. Wylie, Ruth,                      | <u>The Self-Concept.</u><br>University of Nebraska Press, 1961, p.121.   |
| 6. Mead, G.H.,                       | <u>'Self', George Herbert Mead on Social Psychology;</u> ed. Strauss, A.<br>University of Chicago Press, 1964, p.246.  |

self is partially a product of formal education and as a learned structure becomes "a condition of subsequent learning"<sup>(1)</sup>. The child learns to be who he is and who he may become and so the seriousness of the allegation that "the black child's true identity is denied daily in the classroom (and) in so far as he is given an identity, it is a false one"<sup>(2)</sup>, becomes apparent. Although some care must, of course, be exercised when translating to the British scene the results of research conducted in other countries it is not without interest to note that in America Rubovits and Maehr observed from their research that "in general, black students were treated less positively than whites"<sup>(3)</sup> and "were given less attention, ignored more, praised less and criticized more"<sup>(4)</sup>. The effect of such interaction which contains excessive criticism and rejection is, suggests Kegan<sup>(5)</sup>, the development of derogatory self-evaluations whereas praise, respect and understanding promote positive self-evaluations. As awareness of the self emerges "the importance of a preponderance of favourable judgements covering many dimensions of

1. Staines, J.W.,                      The Self-picture as a Factor in the Classroom.  
Brit. Jnl. Educ. Psychol. 28, 1958,  
pp.97-111.
2. Coard, Bernard,                      How the West Indian Child is made  
Educationally Sub-normal in the British  
School System.  
New Beacon Books Ltd., 1971, p.28.
3. Rubovits, Pamela &                      Pygmalion Black and White.  
Maehr, Martin L.,                      Jnl. of Pers. & Soc. Psychol. 25, 2, 1973,  
p.210.
4. Rubovits, Pamela &                      Op. cit. p.217.  
Maehr, Martin L.,
5. Kagan, J.,                              On the need for relativism.  
The Ecology of Human Intelligence,  
Hudson, Liam, Penguin Books, 1967,  
pp.134-156.

self for healthy personality development is almost axiomatic"<sup>(1)</sup> especially when the child is developing attitude constellations which are likely to be consistent with those observed by him in people significant to him. However, as approval and disapproval can be communicated through the conscious and unconscious activity of the teacher it is pertinent to recognise the relevance of Webster's and Sobieszek's report that "the importance of others has been shown to be in some sense a direct function of the frequency of interaction with those others and an inverse function of the extensity of interaction with alternative others"<sup>(2)</sup>. Tizard<sup>(3)</sup> in her study found no significant differences in the amount staff spoke "but there were significant differences in the quality of the talk" and Kohl, whose radical approach to teaching black twelve-year olds gave a practical application to the development of the self-concept, "realized that any successful classroom has to be based upon a dialogue between students and teachers"<sup>(4)</sup>.

The classroom interaction analysis devised for this study identifies the extent of class and individual teaching which takes place and distinguishes the ethnic and sex components of interaction between the

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1. Proshansky, Harold & Newton, Peggy, The Nature and Meaning of Negro Self-Identity, Social Class, Race, and Psychological Development; Ed. Deutsch, M., Irwin K., Jensen, A., Holt, Rinehart and Winston, Inc. 1968, p.182.
  2. Webster Jnr, Murray & Sobieszek, Barbara, Sources of Self-evaluation: A formal theory of significant others & social influence. John Wiley & Sons, 1974. p.28.
  3. Tizard, Barbara, The Environment & Intellectual Functions. Racial Variation in Man (ed. Ebling, F.J.), The Institute of Biology, 1975, pp.116-117.
  4. Kohl, Herbert, 36 Children. Penguin Books, 1973, p.111.

teacher and individual children because a number of studies<sup>(1,2)</sup> reveal the crucial importance of the relationship established between the classroom teacher and the individual child especially in a multi-ethnic setting. Brittan implies that ethnic origin is an important factor in classroom relationships since "teachers perceive 'West Indian' pupils as of low ability and as creating disciplinary problems"<sup>(3)</sup> and Searle believes that "the West Indian probably has a greater problem of identity than most other people"<sup>(4)</sup> to which Dennett would add that West Indian "boys, on the whole, seem more beset by the crisis of identity"<sup>(5)</sup> which may indicate a possible cause of the academic and social difficulties experienced by West Indian boys as reported by Lederman<sup>(6)</sup>. Support for the view that girls of West Indian origin have a more positive self-concept than boys of West Indian origin comes from the findings of Bagley, Mallick and Verma<sup>(7)</sup> who measured self-esteem in a sample of fourteen to

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1. Emmett, Robert G.      A psychological study of the self-concept amongst a group of pupils in a secondary modern school.  
Unpub. M.A. thesis, Univ. of London, 1959.
  2. Lunn, J.,              Streaming in the Primary School.  
NFER Publishing Co., 1970.
  3. Brittan, Elaine,      Multiracial Education (Part 2; Pupils & Teachers).  
Educational Research, 18, 3, June 1976, p.190.
  4. Searle, Chris.,      The Forsaken Lover: White words & Black People.  
Penguin Books, 1973, p.15.
  5. Dennett, Margaret,    We're all the same....but a new Culture Grows, anti-home, non-white.  
The Teacher. 12th July, 1974.
  6. Lederman, S.,        The Social Acceptance of Immigrants.  
Race Today, 1, 2, 1969.
  7. Bagley, C.,  
    Mallick, K. &  
    Verma, G.,          Pupil Self-esteem: A study of black and white Teenagers.  
Race, Education and Identity, (Verma G. & Bagley C. eds.) Macmillan, 1979, pp.176-191.

sixteen year olds. What must not be overlooked is the possibility that some children may adopt what Bettelheim calls a "decision to fail"<sup>(1)</sup> through selected behaviour such as remaining as inconspicuous as possible, ignoring questions, passive reaction to stimuli, fake ignorance or deliberate withdrawal but, as Goldman observes, "it is one thing to contract out from personal conviction and another to be forced out"<sup>(2)</sup>. To consciously or unconsciously opt out or to be deliberately ignored by the teacher may influence the way in which the child views himself so the extent to which boys and girls of European, Asian and West Indian origins engage in classroom interaction and the type of contributions they make, or are called upon to make, will be reported in the results of this study as they relate to each ethnic group and to the variables distinguished in the sample of teachers.

Although the self-concept may be modified through learning acquired from direct experience of the physical world without any social intervention in the school socially generated experiences, with or without the use of language, predominate and for this reason "the student of identity must necessarily be deeply interested in interaction for it is in, and because of, face-to-face interaction that so much appraisal - of self and others - occurs"<sup>(3)</sup>. If Strauss' view is acceptable it is surprising that so little work has been done in Britain to try and

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1. Bettelheim, Bruno, The Decision to Fail. Conflict in the Classroom, (Eds: Long, N; Morse, W; Newman, R.) Wadsworth Publishing Co., 1965, pp.435-446.
  2. Goldman, Ronald, Education and Immigrants. Psychology and Race (Ed. Watson, Peter), Penguin Books, 1973, p.349.
  3. Strauss, Anselm, Mirrors and Masks: The Search for Identity. Martin Robertson & Co. Ltd. 1977, p.44.

identify, through an analysis of interaction, the major influences on the self-concept during the social interplay which takes place in the school. American researchers have developed a substantial body of theoretical and practical knowledge which is comprehensively reported<sup>(1)</sup>: unfortunately there is no equivalent British contribution.

In addition to providing objective data about the extent to which teachers use different modes of teaching with pupils of different ethnic origins the analysis may also provide a means to assist teachers in the modification of their classroom behaviour. Wragg used classroom interaction analysis as a feedback system for student teachers working in the conventional classroom and reports that "interaction analysis provides a tool which helps them gain insights into their own teaching"<sup>(2)</sup>. Similarly when Gage et. al.<sup>(3)</sup> showed teachers the ratings of their performance as assessed by their pupils there was a marked change in teachers' behaviour in ten of the twelve categories used in the study and it is not inconceivable that interaction analysis could be utilized to assist the teacher in the multi-ethnic classroom in a similar fashion.

Each day both children and teachers take into the classroom some permanent features of their individual self-concept which cannot

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| 1. Westbury, Ian & Bellack, Arno A.,             | <u>Research into Classroom Processes: recent developments and next steps.</u><br>Teachers College Press, Columbia University, 1971.         |
| 2. Wragg, E.C.,                                  | Interaction Analysis as a feedback system for student teachers.<br><u>Education for Teaching</u> , Spring, 1970, p.46.                      |
| 3. Gage, N.L. & Runkel, P.J. & Chatterjee, B.B., | <u>Equilibrium Theory and Behaviour Change: an experiment in feedback from pupils to teachers.</u><br>Bureau of Educational Research, 1960. |

naturally be changed such as their sex, age, ethnic origin, colour, physique, nationality, parentage and family, previous environments and experiences. The strong influence on the self-concept of these permanent features has been given some prominence by James Baldwin for "as a black he is rejected because his hair is too kinky, his lips too thick, his skin too dark, and his nose too flat, none of which he could change"<sup>(1)</sup>. So the importance in the multi-ethnic classroom of these durable elements which constitute the stable nucleus of the self-concept is axiomatic and sex and ethnic origin have therefore been used in this study as variables in the analysis of classroom interaction. Around the nucleus of the self-concept lie those attitudes which the subject has towards its durable elements and those attitudes, together with those the subject has towards the nuclear self in others, are carried into the multi-ethnic classroom by the teacher and the children. As a variety of ethnic origins is peculiar to the multi-ethnic classroom the teacher's attitude towards this easily perceived element of the nuclear self is likely to be a significant factor in the classroom particularly as, being dominant, the teacher largely controls the interaction which takes place. Given the possible influence of the teachers' attitudes towards different ethnic groups it is appropriate to investigate further whether or not there is any association between ethnocentrism and the other variables distinguished in this study for as Banton comments, "the processes by which children are taught that certain qualities are masculine or feminine, or that people of a particular appearance are socially inferior, may not feature in any school curriculum; parents and teachers may not be aware that they transmit such ideas, but they do so none the less

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1. Tedeschi, J.T. & Lindskold, Svenn, Social psychology & interdependence, interaction and influence. Wiley, 1976, p.272.

effectively because the process is unacknowledged"<sup>(1)</sup>.

Ethnocentrism:

Adorno and his co-workers used the concept of ethnocentrism in their work as "an ideological system pertaining to group and group relations"<sup>(2)</sup>. They drew a distinction between those groups with which the individual identifies (ingroups which attract positive reactions) and those with which the individual recognises no affinity (outgroups attracting negative reactions). Warr et. al.<sup>(3)</sup> use the same conceptual framework in the construction of 'A British Ethnocentrism Scale' which was revised and modified for use in this present study during which we have conceived of ethnocentrism as being the tendency to consider the characteristics and attributes of ethnic groups other than one's own to be inferior. Ethnocentrism is derived from a basis of the individual's knowledge, or assumed knowledge, and, therefore, avoids the more emotive connotations associated with notions such as racial prejudice and racism which tend to be based on predominantly negative and subjective beliefs. Although these distinctions are generally recognised and widely accepted in social-psychological research some common elements in ethnocentrism and related concepts, which are not

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1. Banton, Michael, Race Relations.  
Tavistock Publications, 1967, p.60
  2. Adorno, T.W., The Authoritarian Personality.  
Frenkel-Brunswick, E., Harper and Row, 1950, p.104.  
Levinson, D.J. &  
Sanford, R.N.,
  3. Warr, Peter, B., A British Ethnocentrism Scale.  
Faust, Judith & Brit. Jnl. soc. clin. Psychol. 6. 1967,  
Harrison, Godfrey J., pp.267-277.

always clearly distinguished in the research literature, need to be taken into account in any comprehensive survey associated with ethnocentrism in education. For this reason work involving such concepts as racial prejudice, racism and authoritarianism have been examined.

A large number of studies into ethnocentrism and related concepts have been undertaken but the empirical study of the phenomenon in education in Britain has been largely neglected. When it has been investigated teachers qua teachers have tended to be ignored as subjects and those studies into ethnocentrism in education that have been made are almost invariably limited to the use of children as subjects<sup>(1,2)</sup>. This reluctance to study what many commentators consider to be an influential constellation of attitudes, and for schoolteachers to co-operate in its study may be due, in part, to the acute sensitivity surrounding its investigation engendered by the knowledge that high levels of ethnocentrism are socially and professionally undesirable. In the absence of any substantial evidence it has sometimes been difficult to comment authoritatively on some vigorous assertions which maintain "that there are many openly prejudiced teachers in Britain"<sup>(3)</sup> a view which gained credence following the strong emphasis given to "racism" among

1. Kawwa, Taysir,                    A survey of Ethnic Attitudes of Some British Secondary School Pupils.  
Brit. Jnl. soc. clin. Psychol. 1968, 7,  
pp.161-168.
2. Richardson, S.A. &                When is Black Beautiful? Coloured & White Children's Reactions to Skin Colour.  
Green, A.,                                Brit. Jnl. Educ. Psychol. Feb. 1971, 41,  
pp.62-69
3. Coard, Bernard,                    How the West Indian Child is made  
Educationally Sub-normal in the British  
School System.  
New Beacon Books Ltd., 1971, p.18.

teachers in the interim report of the Committee of Inquiry into the Education of Children from Ethnic Minority Groups<sup>(1)</sup>. There is some evidence though which suggests that the pattern of ethnocentrism in teachers, whilst showing a level lower than that of the population as a whole, "follows the general pattern with regard to age and sex which has been observed (in) heterogeneous populations"<sup>(2)</sup>. In any study of the self-concept of children in the multi-ethnic classroom the investigation of ethnocentrism amongst teachers assumes an added importance for, as Banton observes, "because racial definitions are based upon immediately observable features of people's appearance and imply that members of different categories differ in their essential nature, they are easily incorporated into psychological processes and racial prejudice is often more deep-rooted and resistant to change than other kinds of prejudice"<sup>(3)</sup>. Moreover, "ethnocentrism cannot be easily dissociated from a prejudice"<sup>(4)</sup> so it is reasonable to suppose that, on the basis of Banton's observation, ethnocentrism is likely to be a major influence on the behaviour a teacher exhibits in the multi-ethnic classroom and may be an influential factor in reaching the numerous professional decisions required of a teacher during the course of a working day.

Rose and his associates, in their study 'Colour and

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| 1. | Rampton, Anthony,<br>(Chairman), | <u>West Indian children in our schools.</u><br>H.M.S.O. Cmd.8273, 17th June, 1981, pp.12-14.                                   |
| 2. | Green, P.A.,                     | <u>Attitudes of Teachers of West Indian Immigrant Children.</u><br>Unpub. M.Phil. thesis, Univ. of Nottingham,<br>1972, p.131. |
| 3. | Banton, Michael,                 | <u>The Idea of Race.</u><br>Tavistock Publications, 1977, p.158.   |
| 4. | Lanternari, V.,                  | <u>Ethnocentrism and Ideology.</u><br><u>Ethnic and Racial Studies</u> , 3, 1, Jan. 1980,<br>p.52.                             |

Citizenship', come close to recognising the possibility of ethnocentrism in schoolteachers when he suggests that "problems are often defined exclusively from the point of view of the teacher, who may not be free from bias"<sup>(1)</sup> and later draws attention to the "problems which West Indian pupils have which derive directly from their teachers and the school system in Britain". They go on to say, "there is the problem of prejudice....expressions (of which) in the wider society must inevitably affect the relationships which can be formed in the classroom....between teacher and pupil"<sup>(2)</sup>. Harding et. al.<sup>(3)</sup> have made a comprehensive survey of the many studies which have been conducted in America and they indicate the significant influence of age and education on ethnocentrism and Allport<sup>(4)</sup>, in support, discusses the effect of extended education observing that subjects with longer formal education are generally more tolerant than those with a bare minimum. The reasons for this are obscure but one suggestion, especially relevant to schoolteacher samples, is that those with higher education feel less threatened by minority ethnic groups. However, contrary to this suggestion, with respect to schoolteachers, is the finding which emerges from Adorno's<sup>(5)</sup> study of

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| 1. Rose, E.B.J. & Associates,  | <u>Colour &amp; Citizenship: A report on British Race Relations.</u><br>Oxford Univ. Press for Institute of Race Relations. 1969, p.282. |
| 2. Rose, E.B.J. & Associates,  | Op. cit. pp.284-285.   |
| 3. Harding, J; Kutner, B; Proshansky, H. & Chein, I.,                  | <u>Prejudice and ethnic Relations.</u><br><u>Handbook of Social Psychology.</u> (Lindzey, G. ed.) Addison-Wesley, 1954; pp.1021-1061.    |
| 4. Allport, G.W.,  | <u>The Nature of Prejudice.</u><br>Addison-Wesley, 1966; pp.432-434.   |
| 5. Adorno, T.W., Frenkel-Brunswick, E., Levinson, D.J. & Sanford, R.N. | <u>The Authoritarian Personality.</u><br>Harper and Row, 1950.   |

authoritarianism namely, that persons such as schoolteachers accepting positions of authority expressed intolerance of minority groups. As the concept of authoritarianism has elements in common with the concept of ethnocentrism notice should be taken of Adorno's finding especially as it has been recorded that "hostility was particularly noticeable in the field of education"<sup>(1)</sup>. After recording her admiration for some teachers who "were wonderful, dedicated, hard-working, caring people"<sup>(2)</sup> Ann Dummett, in her 'Portrait of English Racism', goes on in contrast to state that "children with black faces are not expected to do well in our society. The highly prejudiced teacher will expect them to be failures because as black people they are sure to be stupid or lazy"<sup>(3)</sup>. Parker<sup>(4)</sup>, and later, Jeffcoate<sup>(5)</sup> were both expressing similar concerns in the educational press so it was not surprising to find the general climate reflected in the evidence of the Community Relations Commission to the Parliamentary Select Committee on Race Relations and Immigration: "the belief that schools were free of racial attitudes, both between children themselves and between teachers and children, had, in the opinion

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1. Deakin, Nicholas, Race, the Politicians, and Public Opinion. Explorations in Sociology - Race & Racism, (Zubaida, Sami, ed.) Tavistock Publications, 1970, p.128.
  2. Dummett, Ann, A Portrait of English Racism. Penguin Books, 1973, p.106.
  3. Dummett, Ann. Op. cit. pp.142-143.
  4. Parker, Bob, Will it happen here? Times Educational Supplement, 3145, 12th Sept. 1975, p.23.
  5. Jeffcoate, Robert, Curing a Social Disease. The Times Educational Supplement, 5th Dec. 1975, p.23.

of the Commission, always been a fallacy"<sup>(1)</sup>. Whatever the "belief" the fact remains that there have been very few investigations in British schools into either the extent or the effect of ethnocentrism amongst teachers thus the present lack of objective evidence from empirical studies forces us to rely heavily upon subjective comment from a number of observers of the multi-ethnic scene who, themselves, will not be completely immune from the effects of the phenomenon.

The claim of an Indian educationalist that "the teacher is the most important factor in any educational process"<sup>(2)</sup> might be difficult to substantiate but few would doubt his assertion that "it is his attitude that will ultimately decide the kind of atmosphere that prevails in the classroom"<sup>(2)</sup>. The importance of that classroom atmosphere is referred to by Davey when he asks: "If self-esteem is dependent on the appraisal of others will not the prejudice of the dominant group enter into the stigmatised group member's perception of himself?"<sup>(3)</sup> What comes through quite clearly from a number of studies is that it is the quality of the contacts which is most influential in the development of the child's self-concept especially in a multi-ethnic classroom dominated by the authority of a white teacher. Parker warns against "those

1. Select Committee on Race Relations and Immigration.  
The West Indian Community.  
Session 1976-7, Vol.3, 17th February, 1977.  
HC.180-iii, H.M.S.C., p.525.
2. Sundaravadivelu, N.D., Some suggestions for educational programmes at local & national levels to combat racial & other group prejudices.  
UNESCO- Meeting of experts of Educational Methods Designed to Combat Racial Prejudice.  
UNESCO, 1968, p.47.
3. Davey, A., Racial Awareness in Children & Teacher Education.  
Education for Teaching. Summer 1975, 97, p.29.

attitudes in us which reduce the members of certain racial or ethnic groups to stereotypes which include the conviction that the members of this group are not capable now of full, responsible intellectual, imaginative social or political functioning"<sup>(1)</sup>. The message for the teacher in the multi-ethnic classroom is very clear.

This review of literature pertaining to ethnocentrism has illustrated how the study of this phenomenon in teachers in British schools has been neglected despite indications which suggest that as the teacher is the dominant personality in the multi-ethnic classroom the level of his ethnocentrism is most likely to influence his professional behaviour which, in turn, will affect the socio-psychological climate within which the child perceives those reactions to himself which impinge upon his developing self-concept. For these reasons the study of teachers' ethnocentrism has been included as an integral part of this research.

Any manifestation of ethnocentrism in the multi-ethnic classroom takes place in the context of the teacher's professional activity and as the teacher's opinion of that activity will also influence the classroom climate a consideration of literature related to this aspect of our study concludes this review.

#### Teachers' Opinions about Education:

Over the years studies of teachers' behaviour in the classroom

1. Parker, Bob.,

Will it happen here?  
The Times Educational Supplement. 3145.  
 12th September, 1975, p.23.

have consistently indicated the strong influence which teachers' attitudes can have on the educative process<sup>(1)</sup> conclusions which, in the past decade, have been supported by those working in the area of multi-ethnic education. Goldman, when emphasizing the long-term consequences of certain defects in multi-ethnic education, comments that "the attitudes of teachers and educational administrators are important formative influences on how the ethnically different child generates his self-image"<sup>(2)</sup> and from the American scene Yamamoto expresses a similar view when writing about the teacher's role in the nurture of the self-concept in children of Primary School age<sup>(3)</sup>. Official enquiries produce similar observations: in their search for some understanding of the underachievement of children of West Indian origin members of the Committee of Inquiry into the Education of Children from Ethnic Minority Groups "identified no single cause....but rather a network of widely differing attitudes and expectations on the part of teachers....which lead the West Indian child to have particular difficulties and face particular hurdles in achieving his or her full potential"<sup>(4)</sup>. That the attitudes held by teachers are influential in the multi-ethnic classroom is rarely, if ever, disputed but confusion does emerge to the detriment of our understanding when there is little or no indication as to either the strength of the attitude held or to what it relates. The use by

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1. Morrison, A. & McIntyre, D., Teachers and teaching. Penguin Books, 1969.
  2. Goldman, Ronald, Education and Immigrants, Psychology and Race, (Watson, Peter, Ed.) Penguin Books, 1973, p.350.
  3. Yamamoto, K., The Child and His Image. Houghton Mifflin, 1972, p.60.
  4. Rampton, Anthony, (Chairman), West Indian children in our schools. H.M.S.O. 1981. Cmnd.8273. p.72.

some writers<sup>(e.g.1,2)</sup> of the notion of a homogeneous and unified attitude apparently capable of general application in the classroom is of very restricted value in multi-ethnic studies which has prompted us to draw the distinction between teachers' ethnocentrism and, because ethnocentrism is manifested in the context of multi-ethnic classroom activity, the type of attitudes teachers hold about the professional task in which they are engaged.

In this present study our concern rests not in the teachers' opinions about education as such but in the type of attitude those opinions illustrate, a constraint which tends to restrict the amount of previous literature available. That which is of direct relevance relates to the work of Oliver<sup>(3)</sup> whose 'Survey of Opinions about Education' has been used in this present research to distinguish the presence of toughminded-tenderminded, idealistic-naturalistic and conservative-radical dimensions. In his discussion on the toughminded-tenderminded dimension Oliver suggests that this is essentially one which distinguishes degrees of authoritarianism indicating the type of attitudes teachers hold towards the methods used to bring about desirable changes, or to prevent undesirable changes, through the processes of education. Oliver goes on to comment that "the authoritarian imposes his purposes on another, the individualist (which is equated with the

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| 1. Nash, Roy,      | <u>Classrooms Observed.</u><br>Routledge & Kegan Paul, 1973, p.10.   |
| 2. Edwards, V.K.,  | Effects of dialect on the comprehension<br>of West Indian children.<br><u>Educational Research</u> , 18. 2. February, 1976,<br>pp.84-85. |
| 3. Oliver, R.A.C., | <u>Attitudes to Education.</u><br><u>Brit. Jnl. Educ. Studies</u> . 2.1. Nov. 1953.  |

tenderminded person) recognises the right of each person to exercise choice"<sup>(1)</sup>. Eysenck makes the further observation that a characteristic of toughmindedness is that of the practical extrovert type whereas "the theoretical attitude is that of the 'tenderminded' introvert"<sup>(2)</sup>, a suggestion shared by Oliver and Butcher in their comment that the toughminded-tenderminded dimension is sensitive to practical as against theoretical viewpoints. In their study they found that "students of educational theory are more tenderminded than practising teachers"<sup>(3)</sup> and McIntyre and Morrison's<sup>(4)</sup> interpretation of the results of their study into the educational opinions of teachers in training also lends further empirical weight to the practical-theoretical description of this dimension. Where the teacher stands along this dimension will have important consequences for the way in which interpersonal relationships develop between the teacher and the child and how those relationships are handled in the multi-ethnic classroom and this, coupled with the apparent influence of the teacher's length of experience in the toughening of their attitudes to educational issues, may have significant implications for our understanding of what takes place during interaction between pupils and the teacher in the multi-ethnic classroom.

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1. Oliver, R.A.C., Attitudes to education.  
Brit. Jnl. Educ. Studies. 2. 1. Nov. 1953,  
p.36.
  2. Eysenck, H.J., General social attitudes.  
Jnl. soc. Psychol. 19. 1944, p.214.
  3. Oliver, R.A.C. & Butcher, H.J., Teachers' attitudes to education - the  
structure of educational attitudes.  
Brit. Jnl. soc. & clin. Psychol. 1. 1. Feb.  
1962, p.62.
  4. McIntyre, D. & Morrison, A., The educational opinions of teachers in  
training.  
Brit. Jnl. soc. & clin. Psychol. 6. 1967,  
pp.32-37.

To the idealist education is an activity through which children are encouraged to reach a high level of excellence in the acquisition of knowledge which is seen as the prerequisite to an understanding of values. To achieve this the idealistic teacher emphasizes the need for a high level of aspiration and a positive effort by the learner to master the subject matter presented. Idealistic teachers do not, however, limit their aims to academic excellence since character training and personality development are essential features of their concept of education the demonstration of which is best described by Oliver when he says that the idealistic teacher "looks on his task as the transmission and augmentation of our cultural heritage"<sup>(1)</sup>.

This approach which teachers holding idealistic attitudes about education have towards their professional activity raises some important issues when that task is exercised in a multi-ethnic classroom where, it might reasonably be anticipated, they would use a distinctive style of teaching as they emphasize the importance of mastering the content of lessons. These teachers are also likely to exert a further influence on interaction and the child's self-concept in their selection of the values they uphold especially if those values are not understood or are not acceptable to the different ethnic groups in the multi-ethnic class. Also, would there be a willingness on the part of idealistic teachers not only to transmit "our cultural heritage" but also that of the areas from which the different ethnic groups in the class originate?

At the other end of the idealistic-naturalistic continuum the

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1. Oliver, R.A.C., Attitudes to education.  
Brit. Jnl. Educ. Studies, 2. 1. Nov. 1953,  
p.35.

naturalistic teacher favours the relative freedom of a child-centred approach to education within which self-expression is encouraged as a means of helping the child adjust to his environment. Within the classroom atmosphere which develops from this approach the naturalistic teacher pays particular attention to the child's own interests and uses them to motivate the child in his learning activities which will tend to emphasize the importance of sensory experiences. Education for the idealistic teacher performs an instilling function; for the naturalistic teacher, at the other end of the continuum, this becomes a "guiding function"<sup>(1)</sup>.

The third dimension which Oliver and Butcher<sup>(2)</sup> distinguish is that of conservative-radical attitudes towards education. Whereas the toughminded-tenderminded dimension indicates the teachers' attitude towards the methods employed in promoting or inhibiting change the conservative-radical continuum indicates the subjects' attitude towards the change or conservation itself. As change away from the traditional and conventional is initiated the teacher holding conservative attitudes towards education is likely to find greater difficulty in accepting those changes than the teacher holding more radical attitudes towards education. This could have serious implications in the field of multi-ethnic education especially when changes in classroom teaching are encouraged in order to bring about the opportunity for a more equitable level of scholastic achievement amongst differing ethnic groups.

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1. Peters, R.S., Ethics and Education.  
Allen and Unwin, 1966. p.100.
  2. Oliver, R.A.C. & Butcher, H.J., Teachers' attitudes to education - the structure of educational attitudes.  
Brit. Jnl. soc. & clin. Psychol. 1. 1.  
Feb. 1962. pp.56-69.

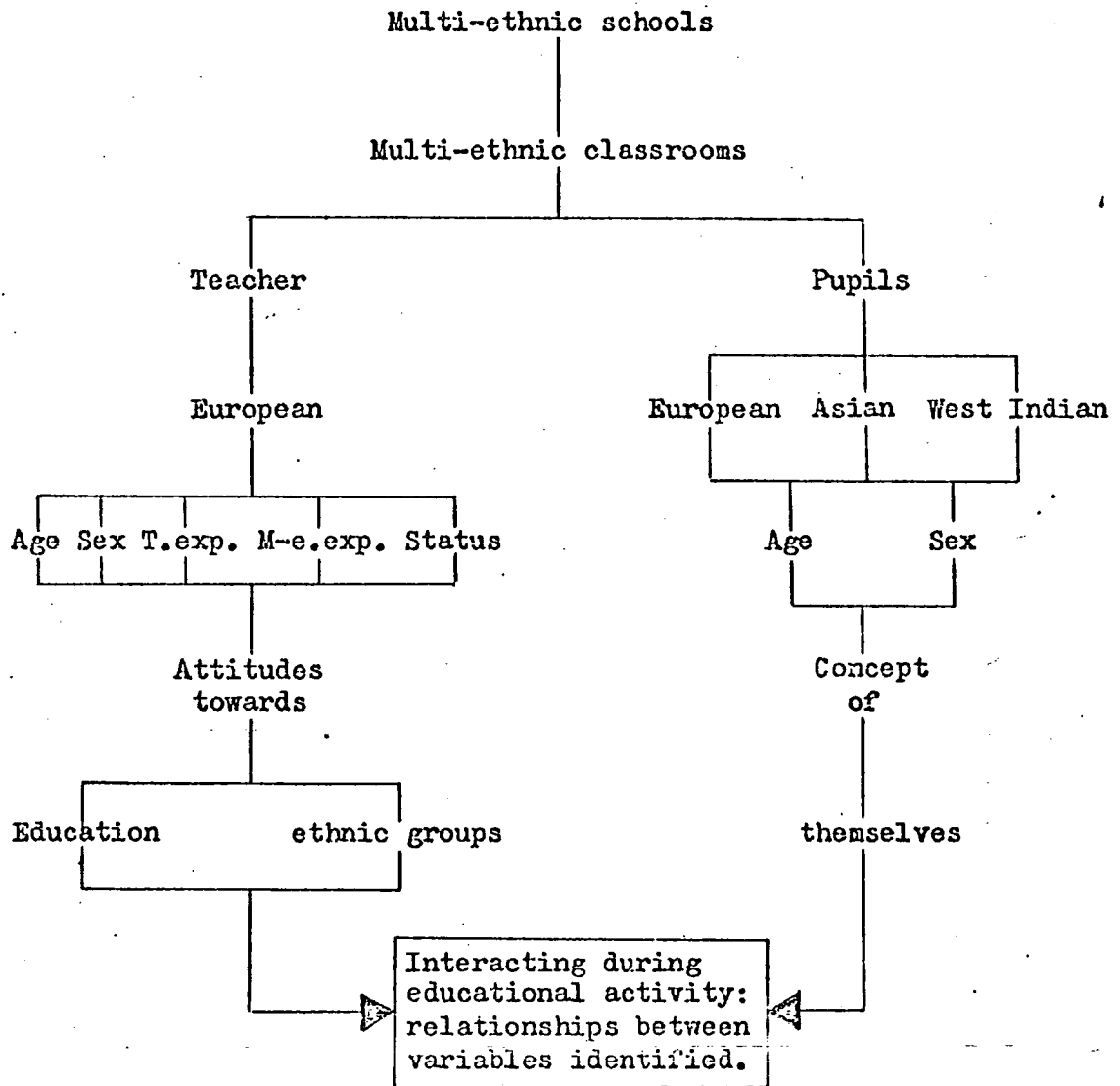
These distinctions can be summarized: the toughminded-tenderminded dimension indicates the teachers' attitudes towards the methods used to achieve educational objectives; the idealistic-naturalistic dimension distinguishes the advocates of teacher-controlled education from those preferring child-centred education; and the conservative-radical dimension shows the teachers' attitudes towards conservation or change in education. These different types of attitudes teachers have towards some fundamental aspects of learning and teaching are likely to influence their professional activity in the multi-ethnic classroom including their style of teaching and the type of pupil-teacher relationship which is encouraged thus affecting the pattern of interaction which takes place and the way in which children of different ethnic groups perceive their role in that interaction with the consequent influence upon their self-concept.

As we have discussed earlier teachers carry with them their own degree of ethnocentrism which will find accentuated or diminished expression within the context of their teaching in the multi-ethnic classroom teaching which itself will not be unaffected by the type of attitudes the teachers have towards education. The activity which takes place in the form of interaction will, as many observers have commented, influence the development of the children's self-concept so the advantage of using these four major variables is that their study brings a coherence to our understanding of the teachers' influence on the self-concept of pupils of different ethnic origins which the research described in the next chapter is designed to investigate.

## DESIGN OF THE RESEARCH

This research starts from the premise that the child's self-concept has a bearing on the level of scholastic achievement and that since the self-concept is largely formed through perceiving and interpreting the communications of others the teacher, as a significant person in the classroom, is likely to exercise an important influence on the development of the pupil's self-concept. It is probable that information will be transmitted to pupils of different ethnic origins about themselves during teacher-pupil interaction when differing emphases may be given, perhaps unconsciously, to different modes of teaching. Furthermore, the use of different teaching modes is unlikely to be immune from the type of attitudes the teacher holds towards education nor, in the multi-ethnic classroom, to remain unaffected by his level of ethnocentrism. It was necessary, therefore, to investigate the professional behaviour of teachers during interaction with pupils in multi-ethnic classrooms so, for each class in the sample, a classroom interaction analysis was conducted from which it was possible to calculate the frequency with which each of ten teaching modes was used with the whole class and with individual boys and girls of European, Asian and West Indian origins. In the interests of reliability the nature of the research was not revealed to the teachers and neither they nor their pupils were aware of the type of observations made in the classroom. After the interaction analysis each teacher completed instruments to measure ethnocentrism and the types of attitudes they held towards education and their pupils completed self-concept scales. The research design has provided data from which may be drawn some tentative indications as to possible associations between pupils' self-concept levels and the extent to which teachers with certain characteristics use different teaching modes in multi-ethnic classrooms.

To assist the reader it may be helpful if the structure of the research is presented diagrammatically:



Each aspect of the research field work is now considered in detail starting with the pilot study which was used, following preliminary trials of some materials, to test the design of the research and the various possible techniques appropriate to this particular study. We then consider the selection of the sample, the data collection instruments including their administration and scoring, and the processing of the resultant data.

### THE PILOT STUDY:

A small pilot study was conducted in order to examine various approaches to the investigation, to test a number of measuring techniques and instruments and to assess different data processing methods. Six schools all located in one Local Education Authority Area many miles from where the field work for the main study was to be conducted, were visited and the project discussed with headteachers. It became increasingly clear that the most sensitive issue was the enquiry into teachers' ethnocentrism and it was apparent that certain changes would have to be made to the instrument being used. The pilot study also demonstrated the value of completing the classroom interaction analysis before the instruments to measure ethnocentrism and opinions about education were introduced to the teachers. The delay in introducing these instruments served two purposes both crucial to the reliability of the data collected. Firstly, it was important that the class teacher should not be aware of the actual nature of the observations which were being made in the classroom so that no special emphases were introduced into the teaching and therefore the interaction. Secondly, the delay allowed time for the teachers to get to know the researcher and to develop a rapport and confidence which helped to smooth the passage of the more sensitive elements of the research field work. The pilot study also served to reveal certain minor difficulties in the scales used to measure different elements of the self-concept: these difficulties were corrected and the revised scales tested for internal consistency.

Finally, the pilot study provided sufficient data with which to test a variety of scoring procedures and data processing methods: these are described in the following sections. The main purpose of the trial was to provide some early indication of any weaknesses in design and

some idea of what might be involved in the execution of the research. Since, in the light of the experience gained, changes were made to the design and modifications to instruments, none of the data which were collected from the pilot study are included in the results of the main research.

#### THE SAMPLE:

Schools from different Education Authority areas were used for the field work for this study in order to lessen any possible bias in the data arising from the influence of geographical and organisational factors which might otherwise be present in the sample. Permission for the research field work to be conducted in their schools was given by two Local Education Authorities each with large multi-ethnic populations. Both Authorities supplied lists of all the schools in their areas in which there were children from minority ethnic groups. Each school was visited and the broad outline of the project was discussed with headteachers who were asked not to divulge the nature of the research to members of staff. During this preliminary visit general information about the school, its size and catchment area and the number of children of different ethnic origins was elicited.

The sampling criterion adopted for the selection of schools was that children of West Indian and Asian origins should constitute at least one quarter of the total school population. Using this standard it seems reasonable to claim that the subjects in the sample, both teachers and pupils, worked in a genuinely multi-ethnic environment. Table 1 shows that in the event children of West Indian and Asian origins were considerably in excess of the sampling criterion. Of the seven schools in the two Local Education Authority areas which met the sampling

TABLE 1Analysis of sample by school, sex and ethnic origin:

School	Teachers		Pupils		European		Asian		West Indian	
	M	F	B	G	B	G	B	G	B	G
A	3	6	132	114	81	77	2	5	49	32
			246		64.23%		35.77%			
B	6	7	183	170	86	65	53	60	44	45
			353		42.78%		57.22%			
C	5	7	171	154	93	77	43	47	35	30
			325		52.31%		47.69%			
D	4	7	122	121	75	68	20	28	27	25
			243		58.85%		41.15%			
E	5	9	185	175	96	82	46	47	43	46
			360		49.44%		50.56%			
F	5	6	158	129	81	59	55	43	22	27
			287		48.78%		51.22%			
TOTALS	28	42	951	863	512	428	219	230	220	205
	70		1,814		51.82%		48.18%			

criterion one was excluded from the sample as the headteacher, who had severe difficulties in the school of a non-educational nature, declined to take part in the project. Of the remaining six schools which constituted the sample three were organised as Middle Schools and three as Junior Schools thus giving an age range for the children from seven to thirteen years. Within these six schools, three from each of the two Local Education Authority areas, five teachers refused to take part in one or more elements of the study making an effective sample of seventy teachers.

As the successful completion of the field work depended to a large extent upon the goodwill and co-operation of the headteachers of the sample schools great care was taken to enlist their full support. The establishment of confidence was crucial and at each stage of the research field work assurances were given that all data collected would remain strictly confidential to the researcher and quite anonymous. The field work for the main study was carried out during the latter half of the school year so that teachers and children had been in lengthy contact with each other by the time the data was collected.

All the schools in the sample were co-educational and were situated three in a city and three in a town both of which were medium-sized. Two schools served the central districts of their Authority's area the children largely living in older type privately owned property. Away from the central districts two schools had catchment areas which included modern council and owner-occupied housing in roughly equal proportions. The remaining two schools were situated in older council estates with predominately poor housing conditions.

The teachers in the sample were all full-time qualified teachers and all were white British nationals. No headteachers are included in the sample because of their severely restricted teaching commitment and also because it was necessary to have early and full discussions with them about the project in order to gain their co-operation. Table 2 analyses the sample of teachers by age and sex showing the predominance of teachers in their thirties.

TABLE 2

Sample of teachers by age groups and sex:

Age group	N. of teachers			% of sample
	M	F	N	
20 - 29	7	15	22	31.43
30 - 39	9	17	26	37.14
40 - 49	6	6	12	17.14
50 - 59	6	4	10	14.29
TOTALS	28	42	70	100.000
$\bar{x}$ age	37.8	34.6	35.9	

This age pattern differs from that obtained in studies carried out in the late 1960's and early 1970's<sup>(1)</sup> when the general pattern in multi-ethnic

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1. Green, P.A.,

Attitudes of Teachers of West Indian Immigrant Children.

Unpub. M.Phil. thesis, Univ. of Nottingham, 1972, p.48.

schools was for the highest percentage of staff to be between the ages of twenty and thirty. This increase in the age level of staff in multi-ethnic schools may be an early sign of the contraction in the number of teaching appointments generally available which had just begun at the time of the research fieldwork and which led to less professional mobility amongst teachers. There is no reason to suppose that this staffing stability affects teachers in multi-ethnic schools any differently than staff in other types of schools and we can find nothing which might suggest the presence of a self-selecting factor amongst the teachers in the sample. The increase in age of staff in multi-ethnic schools may have important implications when related to ethnocentrism which tends to increase with age. Despite this upward movement in age structure the sample is still largely under the age of 45 years (Table 3).

TABLE 3

Sample of teachers under and over 45 years of age:

Age group	N. of teachers			% of sample
	M	F	N	
45 & under	21	36	57	81.43
45 & over	7	6	13	18.57
TOTALS	28	42	70	100.00

The age pattern of the sample is naturally reflected in the length of teaching experience (Table 4):

TABLE 4Length of teaching experience in sample:

Years	N	% of sample
1	5	7.14
2	5	7.14
3	8	11.43
4	6	8.57
5	4	5.71
6 - 10	16	22.86
<hr/>		
1 - 10	44	62.85
11 - 20	17	24.29
21 - 30	7	10.00
31 - 40	2	2.86
TOTAL	70	100.00

( $\bar{x}$  length of teaching experience is 9.99 years with a standard deviation of 8.03)

which, in turn, influences the length of experience of teaching multi-ethnic classes (Table 5).

The evidence indicates that 42.86% of the teachers in the sample have five or more years teaching experience in multi-ethnic classrooms which further suggests a more static staffing pattern contrasted to the mobile situation existing some ten years earlier. Particularly important to this present study is the fact that the sample represents some

TABLE 5Subjects' length of experience teaching multi-ethnic classes:

Years	N	% of sample
1	12	17.14
2	9	12.86
3	11	15.71
4	8	11.43
5	4	5.71
<hr style="border-top: 1px dashed black;"/>		
1 - 5	44	62.86
6 - 10	18	25.71
11 - 15	7	10.00
16 - 20	1	1.43
TOTAL	70	100.00

( $\bar{x}$  length of experience teaching multi-ethnic classes is 5.21 years with a S.D. of 4.11)

substantial experience of multi-ethnic education.

The numbers of children involved in the study are analysed in Table 6 by age, sex and ethnic origins. They were self-selected in the sense that they were all in classes of those teachers in the sample schools who had agreed to take part in the project and they had no alternative to participation.

TABLE 6

Children in the study by age, sex and ethnic origins:

$\bar{x}$ ages	European		Asian		West Ind.		Totals			% of sample
	B	G	B	G	B	G	B	G	N	
7+	33	26	21	26	20	24	74	76	150	8.27
8+	76	70	35	39	47	37	158	146	304	16.76
9+	178	111	41	45	39	34	258	190	448	24.70
10+	125	127	68	76	64	65	257	268	525	28.93
11+	61	76	38	20	18	28	117	124	241	13.29
12+	31	11	9	22	25	15	65	48	113	6.23
13+	8	7	7	2	7	2	22	11	33	1.82
TOTALS	512	428	219	230	220	205	951	863	1814	100.00
% sample	28.2	23.6	12.1	12.7	12.1	11.3	52.4	47.6	100.0	

DATA COLLECTION INSTRUMENTS: (their description, administration & scoring).

Classroom interaction analysis:

The ten-category schedule devised by Flanders<sup>(1)</sup>, and reproduced here on page 64, was used for the analysis of classroom interaction. The criticism which has been directed at the instrument as a record of interaction is of little consequence to this research since the schedule is used only as a means of recording the frequency with which the categories are utilized. It also has the advantage of a relatively simple categorisation which can be conveniently used in conjunction with the added

1. Flanders, N.A.,

Analyzing Teaching Behavior.  
Addison-Wesley, 1970, p.34.

## Flanders' Interaction Analysis Categories\*

Teacher Talk	Response	<p>1. <u>Accepts feeling.</u> Accepts and clarifies an attitude or the feeling tone of a pupil in a nonthreatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.</p> <p>2. <u>Praises or encourages.</u> Praises or encourages pupil action or behavior. Jokes that release tension, but not at the expense of another individual; nodding head, or saying "Um hm?" or "go on" are included.</p> <p>3. <u>Accepts or uses ideas of pupils.</u> Clarifying, building, or developing ideas suggested by a pupil. Teacher extensions of pupil ideas are included but as the teacher brings more of his own ideas into play, shift to category five.</p>
	Initiation	<p>4. <u>Asks questions.</u> Asking a question about content or procedure, based on teacher ideas, with the intent that a pupil will answer.</p> <p>5. <u>Lecturing.</u> Giving facts or opinions about content or procedures; expressing <u>his own</u> ideas, giving <u>his own</u> explanation, or citing an authority other than a pupil.</p> <p>6. <u>Giving directions.</u> Directions, commands, or orders to which a pupil is expected to comply.</p> <p>7. <u>Criticizing or justifying authority.</u> Statements intended to change pupil behavior from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.</p>
Pupil Talk	Response	8. <u>Pupil-talk - response.</u> Talk by pupils in response to teacher. Teacher initiates the contact or solicits pupil statement or structures the situation. Freedom to express own ideas is limited.
	Initiation	9. <u>Pupil-talk - initiation.</u> Talk by pupils which they initiate. Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought, like asking thoughtful questions; going beyond the existing structure.
Silence		10. <u>Silence or confusion.</u> Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

\*There is no scale implied by these numbers. Each number is classificatory; it designates a particular kind of communication event. To write these numbers down during observation is to enumerate, not to judge a position on a scale.

complications of ethnic and gender categorisation of individual pupils. Any more sophisticated schedule would have unnecessarily complicated the analysis and might have led to a lower reliability and a less clear picture of the extent to which teachers use different modes of teaching.

Central to this study is the need to accurately observe and record what actually takes place in the multi-ethnic classroom between the teacher and the children of different ethnic groups. This requirement has necessitated the development of a new approach to classroom interaction analysis in which ethnic origin is taken into account as the interaction is recorded. To provide the information required a variety of recording methods were used during preliminary trials before the pilot study. The most useful of these methods was a scoring sheet (Appendix 4) which enabled the observer to check the speed of recording every half minute and on which, at the same time, the interaction was recorded according to the categories in the schedule, and the sex and ethnic origin of the child involved. When interaction took place with the whole class or a group of children there is provision for this to be recorded separately. The recording method devised also allows the sequence of the interaction to be clearly distinguished in relation to different ethnic groups. A wealth of information, which would have been lost with the use of a simple linear record of interaction, has therefore become readily available in respect of the whole class and for boys and girls of West Indian, Asian and European origins. Teachers were asked to make no special concessions to the presence of the researcher and were not told about any of the variables the project was investigating. The work was simply presented as an exercise in classroom observation for the purposes of a higher degree study.

During the field work recording took place with a single class

during a whole day in which there were a minimum of activities outside the classroom. There was no attempt to record interaction during the first quarter of an hour of the observer's presence in the classroom but thereafter when interaction was taking place the three-second interval recommended by Flanders was used. All observations were recorded by one researcher, who was highly experienced in classroom interaction analysis, so no problems of reliability between observers arose. Recording sheets were used in a loose-leaf file and no major difficulties were encountered in moving around with teachers and children when that proved necessary in the less formal type of lesson.

From the data which the interaction analysis produced it has been possible to calculate the amount of time each teacher engaged in interaction with boys and girls in the class as a whole and with individual boys and girls of European, Asian and West Indian descent. It has also been possible to calculate the amount of time in which each teacher, or each category of children, was engaged in using different types of interaction as distinguished in the schedule. This information when related to the sex and ethnic composition of each class, provides an indication of the emphasis given to categories of interaction, and to ethnic groups, by each class teacher. The method employed to record the classroom interaction has also enabled us to identify patterns and sequences of classroom behaviour as they relate to the variables used in this study.

Because it was important for our purposes to differentiate between the interaction involving different ethnic groups in each multi-ethnic class it has not been appropriate to use Flanders' method of calculation based on a simple linear record of interaction and presented

as matrices of the scores for each teacher. Our quantifications and calculations are based on the total number of three-second time units recorded in each class for each interaction category as related to boys and girls in each ethnic group or the class as a whole.

A British Ethnocentrism Scale:

To distinguish the extent to which ethnocentrism was present in the sample of teachers modifications were made to 'A British Ethnocentrism Scale' devised by Warr et. al.<sup>(1)</sup>. For the purposes of this present research this scale has the merit of standardization using a sample drawn from a large English industrial city not dissimilar from the areas in which the field work for the study was undertaken. It also has the advantage of being easily and quickly completed which is not an unimportant influence upon reliability when the scale is being completed in school by teachers who may have limited time available. Furthermore, its previous use in other studies<sup>(2,3)</sup> drawing samples from British populations allows useful comparison of results with those obtained from a professionally homogenous sample such as schoolteachers thus enabling us to ask whether or not teachers, as a profession, are more or less ethnocentric than the population as a whole.

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1. Warr, P.B.,  
Faust, J. &  
Harrison, G.J.,                   A British Ethnocentrism Scale.  
Brit. Jnl. soc. clin. Psychol. 6, 1967,  
pp.267-277.
  2. Lee, R.E. III,                   The development and standardization of a  
balanced F-scale.  
Jnl. Gen. Psychol. 81, 1969, pp.109-129.
  3. Burns, Robert B.,           Attitudes to Self and to Three Categories of  
Others in a Student Group.  
Educational Studies, Vol.1, No.3, Oct. 1975,  
p.183.

The construction of a comparatively short ethnocentrism scale causes a concentration of topic within the items and tends to produce a transparency which can expose the purpose of the instrument to respondents to the detriment of its reliability. During the pilot study this caused some subject resistance as teachers were conscious of the social and professional undesirability of any suggestion of the presence of ethnocentrism. To lessen this transparency twenty-four additional items based on educational topics were randomly included in the scale which was then presented in the main study as an invitation to respond to "social and educational" topics. As teachers the subjects were familiar with the content of the new items and quickly grasped their import thus their inclusion did not excessively increase the time required to complete the instrument. More importantly the familiarity of the topics in the new items provided some psychological security which helped the subjects to respond to the emotive and sensitive issues in the original scale. As little resistance to the revised scale was encountered during the main study, only five out of seventy-five teachers refusing, it appears reasonable to claim that the inclusion of the additional items (which are not scored) successfully calmed the concerns of those who might otherwise have objected to this element of the study.

One further modification was undertaken. As the validity of any e-scale relies, to some extent, upon the relevance of the items to the experiences of the subjects it was decided to reword eight of the items to reduce the heavy reliance that the original scale places upon 'negroes' as representatives of out-groups. Neither this minor rewording nor the additional items disrupts the negative and positive phrasing used by the authors of the original scale in an attempt to reduce any acquiescence which might accrue from the use of unidirectionally

worded items. As a further safeguard against acquiescent bias thirteen items are worded as absolute statements and eleven as probable statements and none of the wording in the revised form of the scale (Appendix 5) undermines this structure of the original scale.

As the scale had undergone some revision for this research the internal consistency of the revised instrument was investigated. The split-half method was used to calculate the reliability coefficient so each questionnaire was scored in equivalent halves (Appendix 6) on the basis of the divisions shown in Table 7. Applying the Spearman-Brown formula the split-half coefficient of reliability for the full-length e-scale is +0.88 which is sufficient to allow the data obtained from the revised scale to be used with confidence in its reliability.

TABLE 7

Division of e-scale into equivalent halves:

	x items	item numbers	y items	item numbers	TOTALS
Negative absolutes	4	18.20.33.46.	3	4.7.47	7
Negative probables	2	40.48.	3	2.8.35.	5
Positive absolutes	3	5.21.44.	3	19.22.36.	6
Positive probables	3	14.32.42.	3	29.30.38.	6
TOTALS	12		12		24
$\bar{x}$	46.31		40.67		
$\sigma$	1.83		7.69		

Pearson's product moment correlation:  $r = +0.78$

Items in the scale not recorded above are not scored.

After the completion of the classroom interaction analysis teachers were requested to complete the e-scale without discussing it with their colleagues. Responses were made on a Likert-type seven-point scale which was scored using a weighting of '7' for the highest and '1' for the lowest levels of ethnocentrism. Item scores for equivalent halves and for negative and positive items (Table 7) were then added to give a total e-score for each subject. The seventy subjects were then placed in rank order of their tendency towards ethnocentrism and four tolerance groups were distinguished which are designated respectively as highly intolerant, intolerant, tolerant and highly tolerant (Appendix 6). The number of subjects in each tolerance group was determined by a division of the rank order of e-scores in such a way which allowed borderline subjects with the same e-scores to be included in the same tolerance groups whilst retaining the same number of teachers in each of the two extreme groups and each of the two moderate groups. The two extreme groups, each representing 17.1% of the sample, consist of those teachers returning the twelve highest and twelve lowest e-scores with the moderate groups each containing twenty-three teachers. The difference between the mean e-scores of each tolerance group is very highly significant (Table 8).

TABLE 8

Ethnocentric tolerance groupings:

Groups	$\bar{x}$ e-score	S.D.	N	S.E.	df	t value	significance
Highly intolerant	107	6.15	12	1.8	33	8.2	$p < 0.001$
Intolerant	94	3.29	23	0.7		44	10.92
Tolerant	82.43	3.87	23	0.8	33	8.68	$p < 0.001$
Highly tolerant	62.25	9.90	12	2.9			
N	86.99	15.14	70				

As we later discuss in detail men and women teachers in the sample have a significantly lower level of ethnocentrism than that which has been identified in the general population as a whole.

Teachers' Opinions about Education:

The interaction which takes place in any classroom may, of course, be initiated by either the teacher or the children. Once initiated it then largely comes under the control of the teacher who brings to the situation certain opinions about education. As such opinions are likely to act as predeterminants of behaviour patterns employed in teaching it is evident that their measurement in this study is of considerable importance. Bearing in mind the constraints under which any school-based empirical study has to be conducted a simple and quickly completed instrument was required which would distinguish the sort of opinions the teachers in the sample held about education. Such an instrument is the 'Survey of Opinions about Education' which, after one minor modification in one question (Appendix 7) enabled the dimensions of tender-toughmindedness, radicalism-conservatism and naturalism-idealism to be identified<sup>(1)</sup>. Although it has been claimed<sup>(2)</sup> that these dimensions may be used as indicators of personality-type their use in this study is limited to describe the type of attitudes teachers in the sample hold about education.

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1. Oliver, R.A.C. & Butcher, H.J. Teachers' attitudes to education. The structure of Educational Attitudes. Brit. Jnl. soc. clin. Psychol. 1, 1962, pp.56-59.
  2. Eysenck, H.J., The Structure of Human Personality. Methuen, 1970, pp.350-395.

No objections about this instrument were raised by any teacher in the sample and each completed the questionnaire answer sheet (Appendix 8). The three scales embodied in the instrument were scored on a Likert-type five-point scale (Appendix 9) to indicate the three dimensions. The numbers of men and women teachers holding toughminded-tenderminded, conservative-radical and idealistic-naturalistic attitudes towards education (Table 9) shows that women in the sample are predominately idealistic-toughminded-radicals whilst men, who are also idealistic-radicals, display a tendency towards tendermindedness.

TABLE 9

Men and women teachers holding tough-tenderminded, conservative-radical and idealistic-naturalistic attitudes towards education:

Sex	Tough-minded	Tender-minded	Radical	Conservative	Idealism	Naturalism	N
Female	37	5	31	11	28	14	42
Male	12	16	22	6	17	11	28
TOTAL	49	21	53	17	45	25	70
$\chi^2_1$	16.37		0.21		0.26		
Significance	p < 0.001		N.S.		N.S.		

As these dimensions may influence each other the position of each subject has been plotted along two different dimensions within three separate co-ordinations (Appendices 10,11 and 12) all of which show that the scatter of the sample within each co-ordination supports the above distinctions between men and women teachers. Translating these theoretical constructs into the behaviour of teachers in the multi-ethnic classroom we would expect both men and women in the sample to accept changes in education whilst seeking, from all the children, a high level

of performance emphasizing the importance of subject matter. The significant difference between men and women teachers in the sample is most likely to be evident in the manner in which they accept the changes and strive for excellence. Women are likely to be more authoritarian establishing a fairly inflexible classroom routine and probably using a didactic style of teaching. In contrast the tendency will be for men to allow children a greater degree of freedom imposing their ideas less frequently than women teachers in a more relaxed classroom atmosphere.

#### SELF-CONCEPT SCALES:

Scales to measure the self-concept, in one form or another, abound but it is sometimes difficult to find appropriate instruments which can be used with confidence for a specialized investigation and the researcher has to choose between modifying existing scales or developing new ones thus adding to the already substantial collection. For this investigation the former course has been chosen and three existing scales have been slightly modified since they approximate to our requirements and have all been rigorously developed to provide reliable and valid measures which were unlikely to be seriously affected by the slight modifications made for our purposes. Pearson correlation coefficients have been computed for the scores from each of the three scales as returned by boys and girls in each of the three ethnic groups and was in no case lower than  $r = +0.87$ .

Reliability can, of course, be adversely affected if subjects fail to fully comprehend the items in the scale and although all the children in the sample from the different ethnic groups spoke English it was thought advisable, in the light of experience gained in the pilot study, to read the directions, explanations and items of each scale to the

children. In doing this the suggestion of Bledsoe<sup>(1)</sup>, the compiler of one of the scales used, was followed. Also, this method of administration made it possible to use a standard form of illustration and explanation for those items which the pilot study had shown to be difficult for some children to understand (Appendices 13,14,15).

All the children in the class of each teacher in the sample completed the three scales during normal school time. The class teacher was not present when the scales were administered and the children were told during the introduction that the researcher was the only person who would see their responses. During a short informal introduction the researcher spoke to the children about how we see ourselves and gradually moved the discussion which followed from a consideration of objective elements to those of a subjective nature. Using lined paper the children recorded their name, age and sex and listed serial numbers for the items of each scale. In the light of earlier assurances of confidentiality consideration had been given to the advisability of asking for the names of subjects. However, because it was important for subjects to recognise personal responsibility for their responses and because their own name would help them to focus their attention upon themselves as individuals it was decided that the inclusion of names was beneficial to the study. Furthermore, confidentiality was being strongly supported by reading out the contents of the scales as one major advantage in this type of administration is that the resulting responses, in the form of ticks and crosses (Appendices 13,14,15), have a visual

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1. Bledsoe, J., Self-concepts of children and their intelligence, achievement, interests and anxiety. Jnl. of Individual Psychology, 20, 1964, pp.55-58.

anonymity and are meaningless until related, by the researcher, to the content of the scales. Although we felt justified in asking for children's names we were very careful to avoid any suggestion of categorisation on the basis of the subjects' ethnic origin so no information was recorded about ethnic descent but as the papers were collected by the researcher they were sorted unobtrusively into ethnic groups. The children were given the opportunity to ask questions if they were in doubt about what was expected of them before a standard form of introduction was used for each scale.

Bledsoe Self-Concept Scale:

Developed by Joseph Bledsoe<sup>(1,2)</sup> this scale, the first to be given, utilizes thirty adjectives which subjects are asked to accept as describing their perception of themselves on the frequency scale "nearly always", "about half the time" and "just now and then". During trials some children found difficulty with the frequency descriptions and it did not take long for some to ask how they should respond if they wanted to indicate that the word was not descriptive of themselves at any time. Further trials using the same adjectives but which dispensed with the frequency scale and sought a simple straightforward acceptance or rejection of each adjective created no difficulties for the children and was sufficiently reliable (Spearman-Brown split-half +0.89) to permit the

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1. Bledsoe, J.C., Self-concepts of children and their intelligence, achievement, interests and anxiety. Jnl. of Individual Psychology, 20, 1964, pp.55-58.
  2. Bledsoe, J.C., Self-concept of children and their intelligence, achievement, interests, and anxiety. Childhood Education, 43, 1967, p.436.

change to be incorporated in the modified version of the scale (Appendix 13).

Each adjective, when read to the children, was prefixed with the words "I am....."; for example, "I am friendly"; "I am obedient"; "I am honest" and so on. This provided a constant reminder to the subjects of the nature of the response required and, together with the further reminder given at every fifth item: "Is that true of you or not?" or "Is that like you or not?" or "Does that describe you?", it is likely that more accurate responses were recorded than would have been achieved using a list of adjectives which had to be read by the child and which relied upon the single introduction in the heading "This is the way I am". To assist understanding of the items some were illustrated by the addition of simple statements as shown in the modified version which was administered without variation on each occasion.

The revised scale is scored by crediting '1' to each response which agrees with the positive or negative nature of the characteristics described by the adjectives thus giving a total score for each pupil related to the maximum of 30 from the 25 positive and 5 negative items, (numbers 8, 9, 15, 20 and 28).

Self-Esteem Inventory: (Coopersmith):

For research he conducted in the 1960's Stanley Coopersmith developed a scale of fifty-eight items<sup>(1)</sup> to measure self-esteem in his sample. A shorter form derived from an item analysis undertaken at

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1. Coopersmith, S., The Antecedents of Self-esteem.  
W. H. Freeman and Co. 1967, pp.265-6.

the Open University<sup>(1)</sup> was given as the second scale in this research after some minor modifications had been made consequent upon experience gained in the pilot study. Because much of the field work took place in areas where children came from one-parent families or where some were in foster homes it was thought appropriate to alter the wording of the three items which referred to "My parents....." substituting "Adults (older people).....". In the revised scale (Appendix 14) the other twenty-two items remain as in the original. The split-half reliability obtained for the revised scale was +0.87 using the Spearman-Brown formula for the full length scale.

As with the other scales given to children each item was read out and every fifth item was followed by the question "Is that like you or not?" or, "Does that describe you or not?" Some items in the revised scale were illustrated by the additional statements shown in brackets, (Appendix 14).

The revision of the shortened scale in no way confuses the distinctions between high and low self-esteem as identified in the items by five psychologists working with Coopersmith<sup>(2)</sup>. Responses which were indicative of high self-esteem were credited with a score of '1' so the total score for the revised scale for each pupil relates to a maximum score of 25 from eight positive items (numbers 4,5,8,9,14,19,20 and 24) and seventeen negative items (1,2,3,6,7,10,11,12,13,15,16,17,18,21,22, 23, and 25).

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1. Social Relationships (E281).  
The Open University Press, 1972, p.163.
  2. Coopersmith, S., The Antecedents of Self-esteem.  
W. H. Freeman and Co. 1967, p.10.

Self-Concept as a Learner Scale:

The final scale to be given was developed by Walter Waetjen in 1963<sup>(1)</sup>: the Self-Concept as a Learner Scale consists of fifty items within which factor analysis reveals four components namely, motivation, task orientation, problem solving and class membership. In preliminary trials the Likert type scale of responses demanded by the original scale presented some difficulty to many children. To overcome this difficulty and to sharpen up the response without loss of useful information each subject was asked whether or not they thought the statements described themselves. They simply had either to accept or to reject the statement in respect of themselves. The simplicity of this method was also helpful in responding to what is a long scale of fifty items. After the change was incorporated into the revised scale (Appendix 15) the only obvious difficulties related to the subjects' comprehension of the meaning of some items. As with the other scales used with children in this research additional illustrative statements (as shown in brackets) were used each time the scale was administered. The internal consistency calculated by the Spearman-Brown formula was +0.88 for the full length scale.

Each response in the revised scale which indicates a positive self-concept as a learner (Table 10) is assigned a score of '1' with the sub-total for each component part being separately recorded. The total score is, therefore, the number of responses marked in a positive direction related to the possible maximum of fifty.

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1. Waetjen, Walter, (Self-concept as a Learner Scale, University of Maryland, 1963).  
Quoted in 'Social Relationships' (E281).  
The Open University Press, 1972, pp.165-167.

TABLE 10

Positive and negative items of components in Self-Concept  
as a Learner Scale:

Component	Positive Items	Negative Items
Motivation	1,3,6,7,10,12,13.	2,4,5,8,9,11.
Task orientation	15,16,17,20,22.	14,18,19,21,23,24,25,26.
Problem solving	28,30,33,36,37,38,39.	27,29,31,32,34,35.
Class membership	40,41,42,43,44,45,46.	47,48,49,50.

Pearson correlation coefficients computed between the scores returned by boys and girls in each ethnic group for each of the three self-concept scales reveal high correlations (from 0.87 to 0.97) at a very highly significant level ( $p < 0.001$ ) which permits strong confidence in the construct validity of the separate instruments as measures of the self in the setting of the multi-ethnic school.

PROCESSING THE DATA:

University computer facilities were made available for the processing of the data and the codebook is reproduced (Appendix 16) to record the variables, codes and locations in the data. All data were also entered, together with factual information about the schools, teachers and pupils, on copechat punch-cards. Where it has been necessary to establish statistical significance the level accepted is indicated in the text and the accompanying tables. Unless otherwise stated to the contrary for some specific purpose the minimum level accepted is  $p < 0.05$ .

SUMMARY:

Accepting that a child's self-concept has a direct bearing on the level of scholastic achievement our main aim is to discover what influences, if any, the teacher of a multi-ethnic class may have on the self-concept of children of different ethnic origins during classroom activity. The teachers in the sample, most of whom are below the age of 45 years, hold attitudes about education which are predominantly radical and idealistic with men showing more tendermindedness than women. Had it been possible to follow the sample of 28 men and 42 women teachers with their 1,814 pupils over a longer period of time than was available to this single-handed small-scale investigation some advantages might have accrued to the study. If resources had permitted the conduct of a longer-term cohort study it might have been possible to draw conclusions in terms more definitive than the necessarily tentative interpretations used. Nevertheless the cross-sectional nature of the research design has advantages in this particular study especially since the limited demands it made upon teachers' time was no small factor in gaining their co-operation and in reducing the possibility of unexpected intervening variables. The relatively rapid accumulation of data from each of the 70 multi-ethnic classes in six schools has lessened any 'measurement effect' which might have occurred during protracted fieldwork and has prevented problems of subject-loss in what was a larger sample than would have been practicable in a single-handed cohort study. However, given the cross-sectional design it is prudent to exercise some caution in interpretation since what has been recorded is but a moment in time and whilst revealing something of the immediate dynamics of the multi-ethnic classroom it does exert some constraint on any prognostications. The description of what was, and the prediction of what may be, demands the verification of further empirical research to which, it is hoped, this study may be a stimulus.

THE SELF-CONCEPT AND THE STRUCTURE OF TEACHING IN THE  
MULTI-ETHNIC CLASSROOM

If we accept that the projected appraisals and attitudes of other people, particularly those who are dominant, are influential in establishing and modifying the self-concept then accurate information on the structure of the teachers' activity is of particular importance since it is the teacher who largely controls and regulates the extent of the interaction within which such projection takes place. Furthermore, there is, for the child, little legitimate opportunity to physically escape from an experience which may have little meaning for him except for the interpretation he makes of his perception of the teacher's activity in the multi-ethnic classroom. To receive more or less praise, criticism, information, questions or any other form of the teacher's individual attention, may, when perceived by the child, convey to him as much about himself as the language used during the interaction. To be ignored by the teacher may be interpreted as being worth less than others who occupy more of the teacher's attention and, with no available means of changing the situation, there may be a consequent deflation of the self-concept. When such conditions are accompanied by feelings of helplessness the self-concept can be further eroded and should any such differences in attention be translated as ethnic distinctions generalised notions of a low level of ethnic worth may be established to the detriment of the personal evaluations made by individual group members about themselves.

A positive self-concept requires the support of a strong sense of identity which develops through contact with other people who are significant to the child. For children of Asian and West Indian origins in the multi-ethnic classroom the search for identity may be

particularly frustrating since the teacher, who as the dominant model is in very close relationship with the children, is clearly different from themselves. For these children their sex is the only permanent element of their nuclear self which may be identical to that of their teacher and is the only feature which provides a personal relationship between themselves and their teacher. For this reason the data of this research is analysed in this section in relation to this variable.

Moreover the teacher's influence on the self-concept is likely to be at its strongest during the close relationship which develops when the teacher is working with the children individually as distinct from teaching the class as a whole. Therefore, because of the importance of individual teaching to the development of the self-concept the main focus of this study is directed towards the individual interaction which takes place between the teacher and individual children of different ethnic groups. By individual teaching we mean that interaction which involves only the teacher and one child. If, for example, during a period when the teacher is working with the class as a whole group, he asks a question of an individual child, and, after receiving an appropriate answer, responds with praise to the child then, although the interaction took place in the context of a class lesson, we categorise that specific interaction as individual teaching. If the question had been asked generally of the whole class that interaction would be recorded as whole class teaching and would be recorded as such until an individual child was either selected to respond or did so spontaneously at which time recording would be switched to individual teaching. If any subsequent praise was directed collectively to the whole class that would be categorised as whole class interaction although it related to the response made by an individual. Individual teaching therefore, is that which

involves only the teacher and one child in interaction at any one time.

Class teaching and individual teaching are considered here in order to distinguish the structure of the teachers' work in the multi-ethnic classroom. An inspection of the data (Appendix 17) shows that teaching the class as a whole accounts for one third of the total teaching time in the multi-ethnic classroom. Men teachers in the sample spent thirty-seven percent of their time using this form of teaching and women teachers used just over thirty-one percent of their total teaching time but since the statistical significance of this difference is not at an acceptable level we conclude that the extent to which men and women teachers use class teaching does not differ (Appendix 18).

Teaching children individually is, of course, a much more time consuming activity and takes up the remaining two thirds of the total teaching time in the multi-ethnic classroom. Women teachers give a much greater preference to this form of teaching spending almost sixty-nine percent of their total teaching time using this more personal approach. Men also give a substantial allocation of time to individual teaching but at sixty-three percent of their total teaching time it is at a significantly lower level than women teachers (Appendix 19). This strong preference which both men and women teachers give to individual teaching ought not to conceal the fact that, given an average of twenty-six children in each class in the sample, each child, in fact, gets very little individual attention during which a close relationship can be established and developed. It is clear that, despite the teachers' efforts to work individually with children, a considerable amount of the child's time in the multi-ethnic classroom is spent anonymously within a large group with which he has to identify

positively if he is to achieve any degree of psychological security to support the development and modification of his self-concept.

As men and women teachers spend significantly different proportions of their total teaching time with individual children the question arises as to whether there is any association between the sex of the teacher and the sex of the children who receive individual attention. Analysis reveals that women teachers give girls a much greater amount of individual attention than men teachers (Appendix 20) and that there is no real difference between men and women in the amount of individual teaching they give to boys (Appendix 21).

What is likely to be more noticeable than differences between multi-ethnic classes to children of all ethnic groups, and therefore more influential on the development of their self-concept, are those differences which exist within the class of which they are members.

This area of the multi-ethnic scene seems to be clear. Male teachers give 62.3% of the time they spend with individual children to boys who constitute 54.7% of the children they teach. The remaining 37.7% of the time men spend on individual teaching goes, of course, to the girls they teach who make up the remaining 45.3% of the children in classes taught by men. This excess of time given by male teachers to boys in their classes, in preference to girls, is very highly significant (Appendix 22) and allows a confident rejection of the null hypothesis that there is no real difference between the amount of time men teachers spend in teaching boys individually and the amount of time spent in teaching girls individually in multi-ethnic classes. Women teachers, in sharp contrast to men, achieve a relatively even distribution of their individual teaching time. They give 48.8% of their individual

attention to boys in their classes who constitute 50.9% of the children they teach and to girls, making up the remaining 49.1% of their pupils, they give 51.2% of the time allocated to individual teaching. This small difference in the distribution of individual teaching time to boys and girls by women teachers is of no real significance (Appendix 23).

It is against this background of the distribution of teachers' time that we now investigate in more detail the distribution of individual teaching time in respect of ethnic groups. In the light of the evidence presented above it is not surprising to find that boys of the three ethnic groups take a disproportionate amount of the male teachers' individual teaching time (Appendix 24) with boys of Asian and West Indian origins receiving very considerably more time than their numbers would justify (Appendix 25). Asian boys, who receive 26.14% extra time, and West Indian boys, who gain 24.79% additional time do so at the expense of girls particularly those of Asian origin who lose 25.97% of individual teaching time which, in an even distribution, they would attract from male teachers. However, they are not the sole losers in attracting individual teaching from male teachers as girls of West Indian origin receive 19.84% less time than their numbers would justify and girls of European origin lose 10.19% of their individual attention. During individual teaching the orientation of male teachers in the sample is towards boys especially those of Asian and of West Indian origins who gain time at the expense of the girls of the same ethnic groups (Appendix 25).

In multi-ethnic classes taught by female teachers in the sample boys of West Indian origin and girls of Asian origin attracted more than their fair share of individual attention. Boys of West Indian origin received 20.78% more individual attention than their number warranted

and girls of Asian origin 18.93% more, the time coming from that which, in an equitable distribution, would have gone mainly to boys of European and boys of Asian origins (Appendix 26). Boys of European origin received least individual attention in multi-ethnic classes taught by women.

The major difference in the use of individual teaching time by men and women teachers lies in their work with children of Asian origin. Girls in this ethnic group gain considerable additional attention (+18.94%) when taught by women but lose considerably (-25.97%) when taught by men. For boys of the same ethnic group the reverse is the case; they lose individual teaching time when taught by women (-8.52%) but gain it when they are taught by men (+26.14%). The main similarity is in the use of individual teaching time with boys of West Indian origin who are given more of this form of teaching than their numbers would warrant from both men and women teachers taking an extra 20.82% when taught by women and an extra 24.79% when taught by men.

The 'average' class in the sample consists of 26 children 14 of whom are of European origin (8 boys and 6 girls), 6 are of Asian origin (3 boys and 3 girls) and 6 of West Indian origin (3 boys and 3 girls). If the findings so far described are related to the structure found in the 'average' class and expressed in terms appropriate to one hour of interaction we find that the male teacher spends about 22 minutes working with the class as a whole. Of the remaining 38 minutes some 23 minutes will be spent individually with boys and 15 minutes individually with girls. The distribution of the the 23 minutes given to the individual teaching of boys will involve the teacher with the eight boys of European origin for about 11 minutes; with the three boys of Asian origin for about 6 minutes and for slightly less time with the three boys

of West Indian origin. Of the 15 minutes individual attention given to girls the six who are of European origin will receive 8 minutes, the three of Asian origin about 4 minutes and, least of all, the three girls of West Indian origin will receive almost 3 minutes. The exact distribution of individual teaching time between boys and girls of different ethnic groups by male and female teachers during a one-hour period of interaction in an 'average' multi-ethnic class of twenty-six pupils is tabulated for ease of comparison (Appendix 27).

The evidence of this study suggests that it is likely that pupils in multi-ethnic classes who are taught by a man can anticipate some male orientation in the interaction which takes place and girls of West Indian and Asian descent can expect a very detached relationship with their teacher. Why this should be so can only be a matter of speculation but two factors ought, at this stage, to be borne in mind. West Indian family life is still predominately matriarchal in structure and, although residence in England may in time modify this social organisation in families of West Indian descent, attitudes of adults which are transmitted to children are unlikely to respond quickly to pressures which may be seen as weakening a long established pattern of authority in the family. The girl of West Indian origin from a feminine dominated family structure may, therefore, experience some difficulty in relating to the male-teacher authority figure in the multi-ethnic classroom especially when the interaction, which he largely controls, is also male orientated. Unlike her 'West Indian' counterpart the girl of Asian descent is likely to come from a family in which the male is the dominant figure. Her early up-bringing will almost certainly have emphasized reticence in approaching male members of the community and she is likely to experience some diffidence during classroom interaction with the male teacher.

The male dominance she experiences in her family life may also lead her to consider herself as warranting less attention in the class than that given to boys and this, coupled with inculcated feminine passiveness, will tend to make it difficult for the girl of Asian descent to take any form of initiative in the multi-ethnic classroom. As these are strongly-rooted factors they may well be influential in the male teacher's multi-ethnic classroom and useful comparisons and contrasts may be found in the female teacher's classroom into which we now move.

The woman teacher of the 'average' multi-ethnic class uses only 19 minutes of a one-hour period of interaction working with the class as a whole. Unlike her male counterpart the remaining time, in the woman's class 41 minutes, is very evenly distributed between boys and girls. Boys can expect to share 20 minutes and girls 21 minutes of the time given to individual teaching by women. Boys of West Indian origin will occupy her for longer than either boys of European or Asian origins the three of West Indian origin taking some 6 minutes of individual attention. This is in contrast to the 4 minutes given to the three boys of Asian origin and the 10 minutes to the eight boys of European origin who, as individuals, receive less attention from women teachers than the children of any other ethnic group. The six girls of European origin and the three of West Indian origin receive, individually, almost the same amount of individual attention occupying the woman teacher in the multi-ethnic classroom for just over 10 and just under 5 minutes respectively. This is less individual teaching time than that given to the three girls of Asian origin who receive, as a group, slightly over 6 minutes of the woman teacher's attention (Appendix 27).

Children in the multi-ethnic class taught by a woman teacher

can expect a fairly evenly balanced distribution of individual teaching time between boys and girls but the extra time given to girls of Asian origin and to boys of West Indian origin is likely to be obvious to boys of European origin who are denied over twelve percent of the individual attention which they would have received in an equitable distribution. The extra time the woman teacher is occupied in the individual teaching of girls of Asian origin gives further strength to the speculative suggestion made earlier that girls of Asian descent may find it difficult to respond to a male teacher: there appears to be no such reserve between girls of Asian origin and female teachers.

It is within this structure of teaching in the multi-ethnic class that we investigate whether there is any discernable association between the extent individual teaching is used and the level of pupils' self-concept. Correlation coefficients (Appendix 28) reveal that in multi-ethnic classes taught by male teachers there is no significant association between the self-concept level of those children of European and West Indian origins and the amount of individual teaching time they are given. However, the situation with children of Asian origin is different since a relationship between the amount of individual attention and the self-concept of girls is revealed at a very highly significant level ( $p < 0.001$ ) whilst analysis shows that at an acceptably lower level ( $p < 0.05$ ) a relationship also exists between the self-concept of the boys of Asian origin and the amount of individual teaching time they receive from male teachers. Although boys of Asian origin receive considerably more, and girls of the same ethnic group considerably less, individual teaching time from male teachers than their numbers would justify it appears from our evidence that the level of self-concept in children of Asian origin, as measured in the multi-ethnic classroom, may

possibly respond to the individual attention they receive from male teachers. It seems as though the female teacher is likely to be rather more successful in supporting the self-concept of the children in her class during her use of individual teaching time as this appears to sustain the self-concept of boys and girls in all ethnic groups with the exception of girls of European origin (Appendix 28).

However, individual attention is not, of course, just a question of the amount of time given to children in each ethnic group important though this, in itself, might be. To the teacher with a concern for the enhancement of the children's self-concept the activity which takes place during individual teaching is of special interest because of the influence different modes of teaching may have on the self-concept of their pupils. Table 11 shows how male and female teachers of multi-ethnic classes distribute individual teaching time between the categories of interaction and illustrates a remarkable similarity between the percentage amount of time given by men and women to each mode of teaching. Within those classes taught by male teachers boys of West Indian origin have a significantly lower level of self-concept than boys and girls of European origin (Appendix 29) and in those classes taught by female teachers boys of West Indian origin and girls of Asian origin have a significantly lower level of self-concept than boys and girls of European origin and girls of West Indian origin (Appendix 30). For the teacher of the multi-ethnic class, however, the situation becomes more complex as consideration has to be given to the allocation of individual teaching time to each mode of teaching and the distribution of each mode amongst boys and girls of each ethnic group.

In order to complete the scene the observed frequency of each

TABLE 11:

Percentage distribution of individual teaching time by  
male and female teachers between categories of interaction  
in multi-ethnic classrooms:

	<u>CATS.</u>	<u>MALES</u>	<u>FEMALES</u>
Accepts feelings	1.	0.19	0.15
Praise	2.	2.65	2.91
Uses ideas	3.	4.68	4.70
Questions	4.	11.78	12.01
Direct teaching	5.	25.10	25.50
Directions	6.	11.96	11.75
Criticism	7.	7.68	8.10
Pupil response	8.	19.55	18.92
Pupil initiation	9.	8.06	8.90
Silence	10.	8.35	7.06
	TOTAL	100.00	100.00

mode and its expected frequency<sup>(1)</sup>, with their percentage differences, have been calculated for male teachers (Appendix 31) and female teachers (Appendix 32). These data illustrate where imbalances appear to exist in the use of the different modes of teaching and their distribution amongst boys and girls of each ethnic group. Inspection reveals some wide disparities in the extent to which some modes are used with boys and girls of certain ethnic groups. For example, in the class taught by the male teacher the girl of West Indian origin can expect to receive 11%

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1. See footnote to Appendix 25 on page 279.

less praise, and a boy of Asian origin 11% more praise, than their numbers would warrant whilst the boy of Asian origin also gains 32% extra time as his ideas and contributions are accepted and used by the male teacher. The differences in the use of some modes are very wide indeed as in the use of criticism and the time spent by the male teacher in justifying his authority. He spends over twice as much time doing this with boys of West Indian origin than the numbers of boys in this ethnic group would justify but girls of European origin take 41% less time than their numbers would attract in an equal distribution of criticism. In classes taught by women the disparities are not quite so marked but they do, nevertheless, range from an additional 98% given to criticizing boys of West Indian origin to 32% less time spent doing the same thing with girls of Asian origin (Appendix 32).

To show which ethnic groups are given priority when different modes of teaching are being used by male and female teachers their rank order is tabulated in Table 12. There is some measure of agreement between men and women teachers over the order of priority which they give to different ethnic groups when using criticism, when accepting the children's feelings and when making use of direct teaching but perhaps the most noticeable feature of this particular analysis is that in only two instances (categories 1 and 3) does the boy of West Indian origin fall below third place in the rank order of priority. This seems to suggest that both men and women teachers tend to focus their attention, whichever mode of teaching they are using, except categories one and three, towards boys of West Indian origin.

Whether or not these different emphases on particular modes of teaching might be associated with the level of the self-concepts of the

TABLE 12:-

Rank order of priority given to ethnic groups in respect of ten modes of teaching used by male and female teachers:

Rank order	Accepts feelings	Praise	Uses ideas	Questions	Direct teaching	Directions	Criticism	Pupil response	Pupil initiation	Silence
	1	2	3	4	5	6	7	8	9	10
	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F
1.	EB EG	AB AG	AB EG	WB AG	AB AG	WB WB	WB WB	AB AG	AB WB	AB AG
2.	AG AG	WB EG	EB AG	AB WB	EB WB	AB AG	AB EB	WB AB	EG EG	WB EB
3.	WB AB	AG WB	EG EB	EB WG	WB EG	WG AB	EB AB	EB WB	WB EB	WG WB
4.	WG WG	EG AB	WG WB	EG AB	EG WG	EB WG	WG WG	EG EG	EB WG	EB AB
5.	AB WB	EB WG	WB AB	WG EG	AG EB	EG EG	AG EG	WG WG	AG AG	EG WG
6.	EG EB	WG EB	AG WG	AG EB	WG AB	AG EB	EG AG	AG EB	WG AB	AG EG
rho	+0.66	+0.43	+0.23	+0.26	+0.60	+0.37	+0.89	+0.03	+0.03	+0.26

children who take part in the interaction is, as yet, unknown. To reveal what relationships there may be between the extent to which teachers use the different modes of teaching and the self-concepts of their pupils correlation coefficients have been calculated between the self-concept scores returned by boys and girls of each ethnic group in each class and the amount of individual teaching time they received in respect of each mode of teaching used by male teachers (Appendix 33) and female teachers (Appendix 34).

From those classes taught by male teachers one of the most striking features to emerge is the very weak association which exists between the self-concept levels of children of European and Asian origins and the extent to which they receive praise and encouragement (category 2) from their teachers. Traditionally teachers have used praise and encouragement to convey their approval and to promote a feeling of success in their pupils but whether this approach, when teaching children of European or Asian origins, actually enhances the self-concept in any lasting fashion is now brought into question. Without suggesting the presence of any causal relationship it does appear that when using praise and encouragement with children of these two ethnic groups the male teacher gives little, if any, support to the self-concept. What the male teacher's praise and encouragement actually means to these children must remain uncertain but there appears to be some doubt about its effectiveness as a means of enhancing the children's self-concept. A very different picture emerges from the male teacher's use of praise and encouragement with children of West Indian origin where a highly significant relationship ( $p < 0.01$ ) is evident. Although it is correct to adopt a cautious approach to the interpretation of all correlations such prudence ought not to preclude at least an indication of possible reasons for outstanding differences so the tentative suggestion is made that the very strong association between the self-concept of the child of West Indian origin and the amount of praise and encouragement they receive from male teachers may possibly indicate that this particularly influential mode of teaching substitutes for a lack of praise and encouragement from other significant male figures. Such an explanation may be especially apposite if these children receive only minimal praise and encouragement from their fathers who are generally described as being strictly authoritarian in their relationship with their children. Furthermore,

if there is a lack of praise and encouragement from significant male adults in the homes of those of West Indian origin, this will tend to give an intensity to the praise and encouragement which the children of this ethnic group receive in school thus making it particularly stimulating to the self-concept. The significance of the adult male in the relationship, both at home and at school, is highlighted by the further discovery that when children of West Indian origin are taught by a woman teacher no significant relationship between the self-concept of the children and the amount of praise and encouragement they receive is apparent (Appendix 34).

In our sample pupils of Asian origin are the only children taught by male teachers to show a significant relationship ( $p < 0.05$ ) between their level of self-concept and the amount of individual direct teaching (category 5) they receive (Appendix 33). This association leads us to speculate on the possibility that the didactic nature of this mode of teaching, when given by a male teacher, is particularly influential with children of Asian origin because of its close similarity to the form of religious instruction which many of these children receive outside of the multi-ethnic school from male authority figures who have been dominant in their lives from a very young age. Some of the respect which is extended to their religious leaders, all of whom are male, and to other significant adult males, may be projected by children of Asian origin, on to the male teacher in the multi-ethnic school especially when he is using a mode of teaching recognised as similar to that employed by their religious leaders. The importance and significance of these associations to the self-concept of the child making them is likely to be accentuated when the male teacher selects a child of Asian origin for individual direct teaching. In contrast and support of the foregoing

discussion when direct teaching is used by female teachers with boys and girls of Asian origin no significant relationship between the level of self-concept and the amount of direct teaching they receive is revealed (Appendix 34).

The self-concept levels of girls of Asian origin in the sample show a significant association to six of the ten teaching modes used in the analysis: a more extensive range than for any other ethnic group taught by male teachers. Of these relationships those giving the girls the opportunity to speak in the class in response to questions posed by the teacher (category 8) and the chance to initiate interaction (category 9) both relate to the girls' self-concept at a very highly significant level ( $p < 0.001$ ). As these same relationships are also present, albeit at a lower level ( $p < 0.02$ ), in classes taught by female teachers the sex of the teacher does not appear to be a significant factor although as no such relationships are found with boys of Asian origin the sex of the pupil may be influential. These findings and considerations prompt the tentative suggestion that girls of Asian origin may find in the opportunity to engage in and to initiate interaction in the relative freedom of the multi-ethnic classroom some relief from the more repressive climate of the home environment to which girls of Asian origin, more so than boys, are subjected. The self-concept of girls of Asian origin also show a significant relationship to the amount of time they are given to make responses (category 10) in those classes taught by male and female teachers (Appendices 33 and 34).

Another feature in the male teacher's multi-ethnic classroom which is common to girls of Asian and of West Indian origins is the relationship of their self-concepts to the extent to which the teacher

uses directives (category 6). Of all the children taught by male teachers these are the only ones in whom this relationship is present at a significant level although correlations related to boys of Asian and of West Indian origins only just fall outside an acceptable level of significance. In contrast there is virtually no relationship between the time male teachers spend giving directions to children of European origin and the level of their self-concept. In any consideration of the findings in respect of the teacher's directions and the pupils self-concept the size order of the correlations may not be unimportant: girls of Asian origin; girls of West Indian origin; boys of Asian origin; boys of West Indian origin; boys of European origin; girls of European origin. Such an order may possibly suggest the presence of some support for the self-concept through an understanding and acceptance by the children of the relative roles of male teacher and boy or girl pupil which may arise from the social structure to be found in the differing home environments where there are likely to be correspondingly different levels of male dominance. It would be useful to our further understanding of multi-ethnic education if future research were to investigate whether girls, and to a lesser extent boys, of Asian and of West Indian origins find some security in the close teacher control which tends to accompany the giving of directions which may enhance the self-concept.

The last feature from the correlations obtained between the self-concept scores and the categories of classroom interaction used by male teachers to which we draw particular attention concerns boys of West Indian origin. The evidence presented (Appendix 33) shows an association ( $p < 0.02$ ) between the level of the boys' self-concept and the amount of individual attention they are given when the teacher is asking questions (category 4). However, this firm relationship is not

reflected, as might be expected, in a statistically significant correlation between the self-concept and the time given to the boys' responses (category 8) which is, in fact, the weakest of all the correlations for boys of West Indian origin. To be asked a question is to be given a priority over others which can carry with it a sense of value which may, if internalized, be influential on the development of the self-concept. No such association is evident in the more uncertain climate of interaction when the boy's strengths and weaknesses are exposed in the responses which are expected from him by the teacher. There appears to be some support for the self-concept when the responses the boy of West Indian origin does make are accepted and used by the male teacher in the subsequent interaction (category 3;  $p < 0.02$ ) with additional support for the self-concept coming from the praise received (category 2;  $p < 0.01$ ).

In multi-ethnic classes taught by female teachers a significant feature is the apparent relationship between the two modes of teaching which emphasize the teacher's authority (categories 6 and 7) and the self-concept of all children except girls of West Indian origin (Appendix 34). During this use of directions (category 6) and criticism (category 7) the female teacher employs comment designed not only to direct the children's activity but also to change their behaviour into more acceptable patterns. The female teacher's use of these modes of teaching appears to be more supportive of the children's self-concept than when the same approach is used by men since their use of criticism does not relate significantly to the self-concept of any group of children in their classes and their directives support the self-concept only of girls of Asian and West Indian origins (Appendix 33). The evidence (Appendix 34) also suggests that women teachers use direct teaching with individual children of European

origin and with boys of West Indian origin in a manner which tends to support the self-concept of these children. It seems that those modes of teaching which emphasize the female teacher's control of the interaction tend to stimulate a climate within the multi-ethnic classroom which may be conducive to the development of the children's self-concept. Conversely the acceptance of the feelings of children (category 1) and the acceptance and use of their ideas (category 3) is, on the basis of our evidence, unlikely to provide any support for the self-concept of any group of children in multi-ethnic classes taught by women.

The second major feature of the female teacher's work in the multi-ethnic class relates to girls of Asian origin. The relationship that the woman teacher has with these girls appears as though it could be particularly supportive of the self-concept since seven of the ten different categories of interaction show a statistically significant relationship to these children's self-concept. Of these seven the time given to the child's responses (category 8), and the teacher's use of praise and encouragement (category 2) are of significance to the self-concept only in girls of Asian origin. The use by the female teacher working with girls of Asian origin of the separate elements of the question, answer and praise sequence (categories 4 - 8 - 2) appears to be particularly supportive of the self-concept of these girls especially when used in the relatively authoritarian atmosphere indicated by the significance of the use of directives and criticism (categories 6 and 7).

Turning, lastly, to boys of West Indian origin taught by women it appears as if the individual attention these boys receive through direct teaching (category 5), coupled with statements upholding the authority of the female teacher (categories 6 and 7), may sustain the

level of the boys' self-concept. However, the support the self-concept seems to receive ( $p < 0.02$ ) from the female teacher's use of questions (category 4) with boys of West Indian origin appears to desert them when they are making their responses (category 8). This follows the pattern found in the male teacher's work with boys of the same ethnic group. Nevertheless, when the boy of West Indian origin has the relative freedom in which to initiate his own contributions (category 9) in the female teacher's multi-ethnic class there appears to be some support for his self-concept (Appendix 34).

The structure which comes into focus from the kaleidoscope of teaching in the seventy multi-ethnic classrooms observed for this study is one in which men teachers give significantly less time to teaching children individually than their female counterparts. In any consideration of this broad structure caution dictates the need to take into account the age of the pupils since the general practice in primary education is for men to teach older pupils who tend to attract rather less individual teaching than younger children. This element shows an almost identical mean age for pupils taught by men ( $\bar{x}$  10.02 years) and for those taught by women ( $\bar{x}$  10.13 years). Within this general framework boys in the twenty-eight classes taught by men attracted significantly more individual teaching than girls with this emphasis spreading across all three ethnic groups with boys of Asian origin gaining some 26%, and boys of West Indian origin some 25%, more individual teaching time than would be expected in an equitable distribution. The predominant modes of teaching used by men during these prolonged periods were, for boys of Asian origin, silence during teaching and response sequences; the acceptance and use of the boys' contributions; directions and the contributions of the pupils. For boys of West Indian origin the tenor seems to be rather less positive with excess

time being given to criticism; asking questions and giving directions. Turning to those classes taught by women teachers it was found that the greater emphases given to individual teaching shows no significant difference between the amount given to boys and that given to girls although there are some imbalances in the distribution between boys and girls of different ethnic groups most notably girls of Asian origin who received 19%, and boys of West Indian origin some 21%, additional individual teaching time. Girls of Asian origin gained time from periods of silence during teaching and response sequences; the acceptance of their feelings and their responses to the teacher whereas, in a more negative vein, boys of West Indian origin received excess criticism and directives. Whilst the evidence suggests that there may be an association between the individual teaching time given by male teachers to boys and girls of Asian origin and the level of their self-concepts those of other ethnic groups taught by men do not appear to gain any support from the amount of individual attention received. A different picture emerges from the female teachers use of individual teaching time which seems to give some support to the self-concept of all children except girls of European origin.

This analysis has described the use by men and women teachers in the sample of the ten modes of teaching as employed with boys and girls of each ethnic group. That the observed differences might have their origination in some factor other than gender is an ever present possibility which must constrain any unqualified generalization of these results but, for those teachers who recognise the influence of the self-concept on learning, they provide some indication of those modes which appear to support the self-concept of boys and girls of different ethnic origins when used by men or women teachers in the multi-ethnic classroom.



## ETHNOCENTRISM, THE TEACHER AND THE SELF-CONCEPT.

The behaviour of the teacher in the multi-ethnic classroom, unless it is consciously modified to produce a spurious behavioural pattern for some particular reason, is likely to reflect those attitudes which are most strongly held. Amongst these attitudes those directed towards ethnic factors, in varying degrees of intensity, will tend to be most active when working with children of different ethnic origins and will hold a place of some prominence in the attitudinal constellation of any teacher of a multi-ethnic class. From the numerous attempts that have been made to define what an attitude is one thread of agreement can be teased namely, that an attitude predisposes "one to respond in some preferential manner"<sup>(1)</sup> which, as a consensus of authoritative opinion, is of major importance to this study since it means that the level of teachers' ethnocentrism may prove to be a strong predeterminant influencing their behaviour and, consequentially, their possible effect on the children's self-concept. As we have already discussed we mean by ethnocentrism the tendency to consider the characteristics and attributes of ethnic groups other than one's own to be inferior and the extent to which this was present in the sample of teachers was measured, as fully reported earlier, by a revised form of 'A British Ethnocentrism Scale' (Appendix 5).

The use of the concept of ethnocentrism has the advantage of avoiding the more active connotations associated with the notion of

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1. Rokeach, Milton,

The Nature of Attitudes.  
International encyclopedia of the Social  
Sciences.  
Macmillan and Free Press, 1968, p.449.

"racism" which the Committee of Inquiry into the Education of Ethnic Minority Groups used to describe "a set of attitudes and behaviour towards people of another race based on the belief that races are distinct and can be graded as 'superior' or 'inferior'"<sup>(1)</sup>. Not surprisingly any official indictment of teachers accusing them of "racism" finds immediate and wide publicity<sup>(2)</sup> most of which gives little, if any, serious consideration to the subjective nature of the evidence on which the charges are based. Crude descriptions and emotive accusations<sup>(3)</sup> do nothing to improve what may be a real source of teacher influence although the wide expression of disquiet does give some indication of the extent of the concern which surrounds this sensitive aspect of multi-ethnic education. The importance of the possible influence of the teacher's ethnocentrism in the multi-ethnic classroom is rarely disputed and it would seem appropriate, in any consideration of the teacher's influence on the pupil's self-concept, to give particular attention to a detailed study of the data in respect of this major variable. The following analysis illustrates the differing emphases in the teachers' work as it was observed and indicates those teaching modes which may have some association with the development of the pupils' self-concept thus identifying areas which may repay further research and allow the possibility of some modification in teaching practices.

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|-------------------------------------|---|
| 1. Rampton, Anthony,<br>(Chairman), | <u>West Indian Children in our Schools.</u><br>H.M.S.O., 1981, Cmnd.8273, p.12.   |
| 2. Geddes, Diana,                   | Racism blamed for West Indian pupils' failures.<br><u>The Times</u> , 22nd May, 1981, No.60934, p.3.                                  |
| 3. Coard, Bernard,                  | <u>How the West Indian Child is made Educationally Sub-normal in the British School System.</u><br>New Beacon Books Ltd., 1971, p.18. |

The public spotlight on teachers working in multi-ethnic classrooms almost invariably focuses upon their ethnocentric tendencies with a frequency and pungency which may make these teachers appear more ethnocentric than the population at large. Whether or not teachers are more or less ethnocentric than the general population has been investigated by comparing our data with that obtained by Warr from his standardization group<sup>(1)</sup>, which was drawn from a wide socially mixed population, and we find that both men and women teachers in multi-ethnic schools have a significantly lower level of ethnocentrism than that which has been identified in the population as a whole (Appendix 35). This is what might have been reasonably anticipated because, as qualified teachers, the subjects in our sample would have received an extended education which, it is generally accepted, "has a marked effect"<sup>(2)</sup> on reducing negative attitudes. However, this significantly lower level of ethnocentrism in teachers working in multi-ethnic schools, important though it is to our knowledge, ought not to detract from the very real differences in classroom behaviour which have been observed in those teachers who hold very negative, as distinct from very positive, ethnic attitudes.

These differences in teachers' behaviour in the multi-ethnic classroom, and their possible association with the self-concept of their pupils, is investigated in the detailed consideration which follows. The data have been analysed according to the frequency with which the ten

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| 1. | Warr, P.B.,<br>Faust, J. &<br>Harrison, G.J., | A British Ethnocentrism Scale.<br><u>Brit. Jnl. soc. clin. Psychol.</u> 6, 1967,<br>p.275. |
| 2. | Allport, G.W.,                                | <u>The Nature of Prejudice.</u><br>Addison-Wesley, 1966, p.433.                            |

different modes of teaching used for the classroom interaction analysis are used with boys and girls of European, Asian and West Indian origins by those teachers who have been identified as highly tolerant and those identified as highly intolerant<sup>(1)</sup>. These observed frequencies are compared and contrasted with expected frequencies which have been calculated on the expectation that the proportion of any mode of teaching received by boys or girls of any one ethnic group should be the same as the proportional size of that group. We would, for example, expect that boys of European origin, who constitute 32.64% of all the children taught by highly tolerant teachers, to receive 32.64% of the time given to each mode of teaching by these teachers. Any discrepancy between the observed and expected frequencies provides an indication of the extent to which teachers in the two extreme ethnocentric groups "respond in some preferential manner"<sup>(2)</sup> when using the different modes of teaching which follow in the order of their category classification.

The positive acceptance of children's feelings (C1):

Comments by teachers in which they accept children's feelings "are relatively rare and infrequent"<sup>(3)</sup> but they are of no less importance because of that particularly in the multi-ethnic classroom where

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1. The selection of these categories is explained on p. 70.
  2. Rokeach, Milton, The Nature of Attitudes.  
International Encyclopedia of the Social Sciences.  
Macmillan and Free Press, 1968, p.449.
  3. Flanders, N.A., Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. Inc.  
1970, p.40.

inappropriate and insensitive handling of children's emotions may be more readily open to criticism than they are when they occur in a more conventional classroom. The approach and reaction of the teacher to the children's emotional behaviour is most likely to be influenced by the values the teacher holds most firmly the expression of which will be used to exercise some degree of emotional control in the classroom.

Emotional harmony between teacher and children is one of the strongest and most cohesive of all interpersonal relationships and where children of different ethnic origins experience an ungrudging and genuine acceptance of their feelings by the teacher they are likely to feel acceptable as persons in their own right which, in itself, provides a major strengthening of the positive elements of the self-concept. In spite of the fairly substantial period of time which most families of Asian and West Indian descent have now spent in Britain the teacher in the multi-ethnic classroom will almost certainly be aware of some cultural influences, characteristic of different ethnic origins, which exert their dominance upon the emotional behaviour of children of whatever ethnic descent. For the teacher of the multi-ethnic class it is the apparent incompatibility of much emotional expression which presents most difficulty especially where the extent of the child's self-regulated control of the emotional behaviour does not equate with the teacher's demands whereupon externally imposed controls are enforced. Restrictive control of children's feelings is not included in the observations within this category of interaction so the data may be interpreted as indicating acceptance of children's emotional behaviour in a way which supports and enhances a positive self-concept. For this reason, despite the small number of recorded observations in this category, it is important to look in some detail at the extent to which highly tolerant and highly intolerant teachers accept the feelings of

children of different ethnic origins.

Although highly tolerant teachers give twice as much of their total teaching time to the positive acceptance of children's feelings than highly intolerant teachers (Appendices 39 and 40) the occasions when this is done by both groups of teachers are few and far between.

Nevertheless, this proportional difference may be indicative of a more relaxed climate in the classroom of the highly tolerant teacher which permits of a freer expression of children's feelings and which, therefore, take up a greater amount of the total teaching time than in the class of the highly intolerant teacher. As we are concerned in this category with the positive acceptance of the children's feelings it is reasonable to suppose that children taught by a highly tolerant teacher may attract more sympathy for their emotional behaviour than children taught by a highly intolerant teacher. It is the highly tolerant teacher who appears to attach most importance to giving positive responses to children as they express their feelings and who, unlike the more ethnocentric teacher, also responds positively to the collective emotional behaviour of the class as a whole.

The distribution of the time given to accepting the feelings of individual children in classes taught by highly intolerant teachers favours girls of Asian origin who receive three times as much attention as would be expected in relation to their numbers. This is far in excess of any other group of children (Table 13) and may suggest that the observed passivity of girls of Asian descent points to a calm and orderly expression of their feelings which finds favour with those teachers who are highly intolerant. There is a slight indication of the possibility of some association between the level of the self-concept of girls of

TABLE 13:

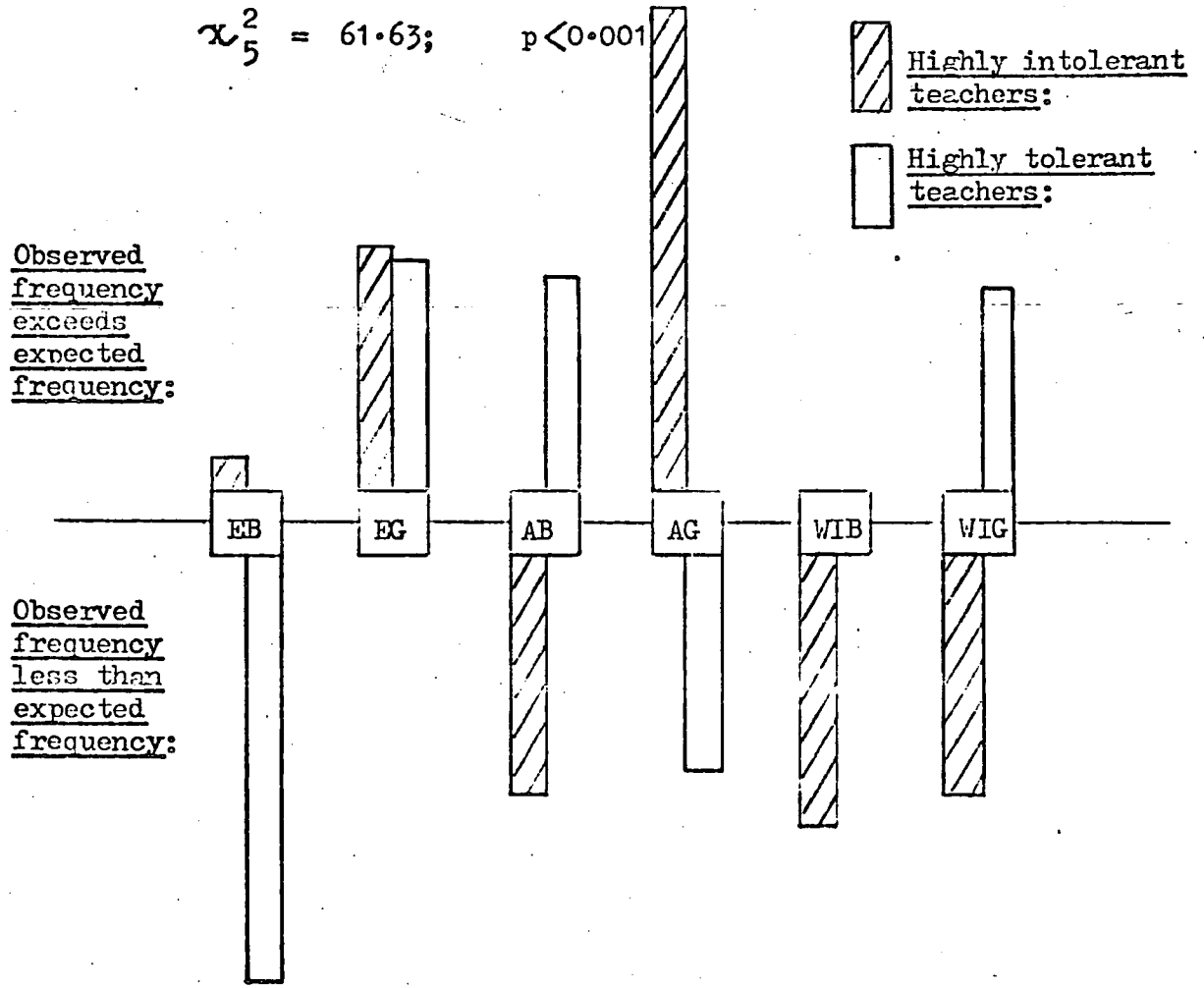
Distribution of individual teaching time given to accepting children's attitudes and feelings (category 1) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C1HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	13	47	24	0	14	27	125
$f_e$	41	32	10	14	14	14	125
$(f_o - f_e)$	-28	+15	+14	-14	0	+13	
% of total	-22.4	+12.0	+11.2	-11.2	0	+10.4	

$\chi^2_5 = 71.82; p < 0.001$

C1HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	17	22	0	24	0	0	63
$f_e$	16	14	8	8	9	8	63
$(f_o - f_e)$	+1	+8	-8	+16	-9	-8	
% of total	+1.59	+12.70	-12.70	+25.39	-14.28	-12.70	

$\chi^2_5 = 61.63; p < 0.001$



Asian origin and the attention their feelings receive from highly intolerant teachers (Appendix 37.1). It appears that the additional time given by these teachers to the interaction involved when positively reacting to the feelings of girls of Asian origin may be associated with the development of their self-concept. These ethnically intolerant teachers also spend an excessive amount of time dealing positively with the feelings of girls of European origin and to a lesser extent with their male counterparts. Boys of Asian descent, and both boys and girls of West Indian descent, all receive less attention than their numbers would warrant from the teachers who are highly intolerant. In those classes taught by highly tolerant teachers boys of European descent attract considerably less of the time spent in this form of interaction than would be expected in an equitable distribution of time together with, to a lesser extent, girls of Asian origin. The time which might have been given to these two groups forms the excess time given by highly tolerant teachers to girls of European and West Indian origin and boys of Asian origin all of whom receive more positive attention of their feelings than their numbers would warrant. Apart from the slight possibility of an association between this mode of teaching when used by highly intolerant teachers and the self-concept of girls of Asian origin no other significant relationships are evident.

When the sex variable is controlled and the data is analysed in respect of the three ethnic groups there is a sharp contrast between the patterns of attention given by highly tolerant and highly intolerant teachers. Those teachers who are highly tolerant give more time to children of West Indian origin taking that time from children of European origin whereas highly intolerant teachers, who give far more time to children of both European and Asian origins, take time from children of

West Indian origin (Appendix 36.1). When this analysis is correlated with the self-concept scores the results show a slight association with the self-concept of children of Asian origin (Appendix 37.2) which reflects the association already described related to girls of this ethnic group.

When dealing with children's feelings in the multi-ethnic classroom these differences are again reflected in the preference shown by highly tolerant teachers to black children and by highly intolerant teachers to white children (Appendix 36.2) and by the slight association between the self-concept and this mode of teaching when used by highly intolerant teachers with black children (Appendix 37.3).

Although there are differences in the extent to which both groups of teachers respond positively to the feelings of girls of different ethnic origins (Table 13) the general tendency for these teachers is to respond positively to girls more than boys (Appendix 36.3). It is also interesting to note that girls of European origin are the only group to receive more than their fair share of attention from both highly tolerant and highly intolerant teachers when they are dealing with pupils' feelings. Furthermore, this is the only category of interaction from the ten which have been used for this study in which girls of European origin gain any preference from both highly tolerant and highly intolerant teachers. What this orientation suggests must be a matter of conjecture but it might possibly indicate that both groups of teachers feel more competent in handling the less boisterous expression of girls' feelings and are more able to control girls' behaviour following the positive acceptance of their feelings. There are not, however, any significant relationships between the self-concept and the acceptance of the feelings of boys and

girls by highly tolerant or highly intolerant teachers when ethnic and colour factors are controlled (Appendix 37.4).

The observations reported in this section refer to the positive acceptance by the teacher of the expressed feelings of children in multi-ethnic classes. Despite the infrequent examples in the classroom, and the consequent low number of observations, there is some evidence which suggests that differences do exist in the responses made to the expression of children's emotions by highly tolerant and highly intolerant teachers. Since rejection, either actively or passively, threatens the coherence of the self-concept of children of all ethnic groups and produces learning problems for them the importance of the distinctions discovered among teachers of different levels of ethnocentrism ought not to be ignored especially where girls of Asian origin are involved with highly intolerant teachers.

The praise or encouragement of children's contributions (C2):

The recognition of worth and its reward has long been regarded by teachers as a powerful stimulant to increased effort and is used, in British education, as a major motivating influence. Praise is a recognition of worth which, when given orally in the multi-ethnic classroom, is likely to gain in attraction to the child receiving it by its immediate publicity to other children. This positive external appraisal by the teacher demonstrates to everyone an acceptance by authority, not only of the child's contribution, but also of the child. Any approval of a personal contribution serves as a measure for the valuation a child makes of himself and acts as an indicator to others of

the esteem which is attributed to the child. However the converse is also very highly influential: if a child consistently makes contributions which are ignored or undervalued it is but a short psychological step to the devaluation of the self with the possibility of a consequent decline in academic performance which, in turn, makes it more difficult for the child to produce acceptable work and behaviour. In these circumstances the teacher not infrequently resorts to a variety of punitive measures which introduce their own peculiar difficulties. It would seem, therefore, appropriate for teachers of multi-ethnic classes who might wish to use praise and encouragement as a form of positive reinforcement to recognise where imbalances in its distribution might possibly prevail so that, with attention to the emphases given, all pupils might receive whatever benefit this particular mode of teaching might, in practice, provide.

The giving of praise and encouragement to children in the multi-ethnic classrooms of highly tolerant and highly intolerant teachers takes up less of their time than almost any other form of interaction save for that given to the acceptance of children's feelings and responding positively to them (Appendices 39 and 40). In our sample highly tolerant teachers spent just over three percent of their total teaching time using some form of praise and direct encouragement compared with just over one percent by highly intolerant teachers. This fact, in itself, is of little importance to the child in the multi-ethnic class except in so far as praise and encouragement become a more significant part of the general atmosphere of the class taught by the highly tolerant teacher and children's expectations of receiving positive reinforcement for their efforts are likely to be higher than those children taught by the teacher who is more ethnocentric.

Praise can, of course, be given to a group of children or it can be directed to individual children. Of all the praise and encouragement which was observed in classes taught by highly tolerant and highly intolerant teachers most was given direct to individual children (HTT 91.45%; HIT 87.64%) with teachers of both ethnocentric levels praising the class as a whole at fairly infrequent intervals (HTT 8.55%; HIT 12.36%). This is one instance which illustrates a major difference noticeable in the teaching styles of highly tolerant and highly intolerant teachers namely that the highly tolerant teacher interacts with individual children more often than the highly intolerant teacher who concentrates more time on working with the class as a whole (Appendices 39 and 40).

In the eyes of children it may well be that it is the proportion of the total time used in praise which they attract which is of most importance to them and to the image they develop of themselves as individuals. If this is so then boys of European origin will feel themselves to be relatively ignored when praise is used by teachers who are ethnically highly tolerant as they attract almost fourteen and a half percent less of the time given to this activity than their numbers would justify in an equal distribution. This is one of the largest discrepancies discovered in this study and indicates a serious imbalance in the distribution of praise by highly tolerant teachers. They distribute this time, together with five percent from that which should have been allocated to girls of European origin, mainly amongst boys and girls of Asian origin and boys of West Indian origin (Table 14). None of the praise and encouragement used by highly tolerant teachers appears to be associated with the self-concept of boys or girls of any ethnic group (Appendix 37.5). In those classes taught by highly intolerant

TABLE 14:

Distribution of individual teaching time given to praise and encouragement (category 2) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C2HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	265	303	234	220	264	169	1455
$f_e$	475	376	120	158	163	163	1455
$(f_o - f_e)$	-210	-73	+114	+62	+101	+6	
% of total	-14.43	-5.02	+7.84	+4.26	+6.94	+0.41	

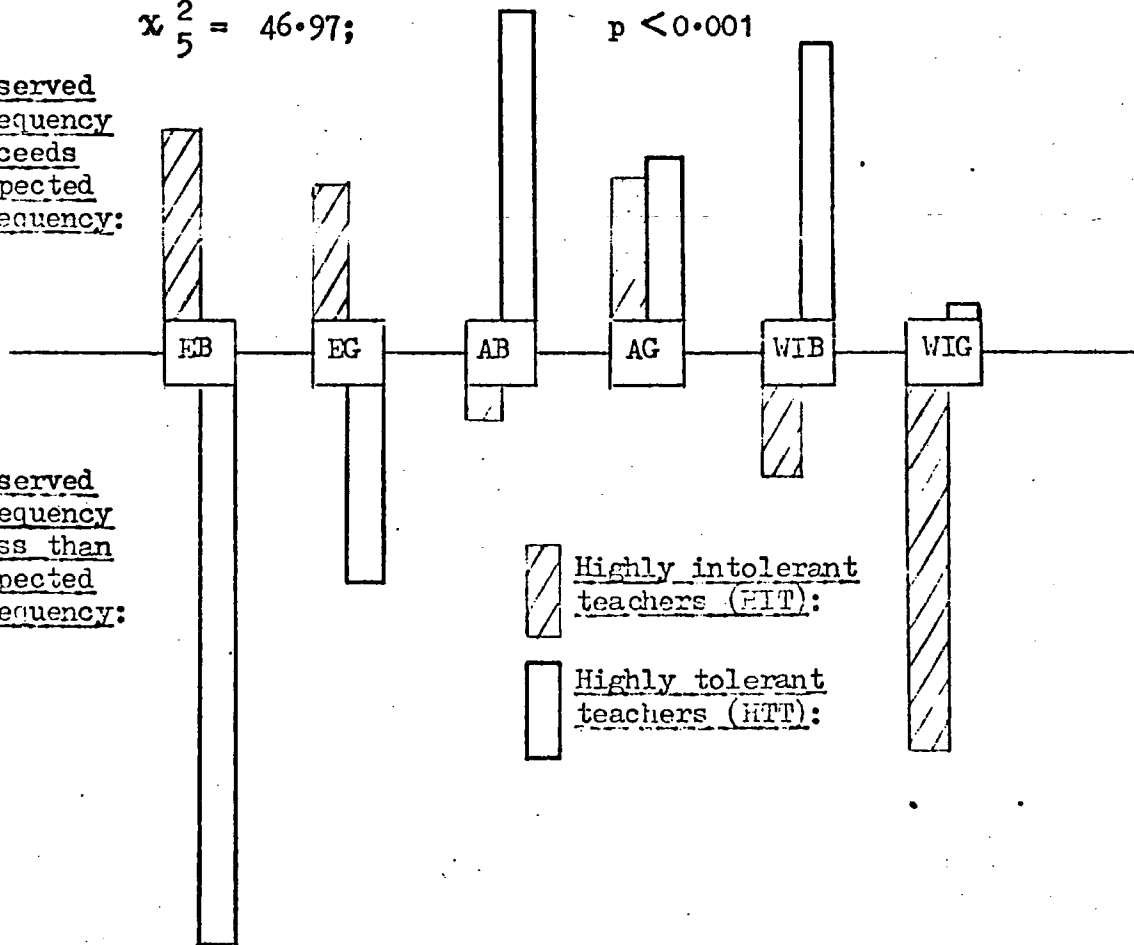
$\chi^2_5 = 302.45; \quad p < 0.001$

C2HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	154	124	55	77	56	16	482
$f_e$	130	107	59	59	67	60	482
$(f_o - f_e)$	+24	+17	-4	+18	-11	-44	
% of total	+4.98	+3.53	-0.83	+3.73	-2.28	-9.13	

$\chi^2_5 = 46.97; \quad p < 0.001$

Observed frequency exceeds expected frequency:

Observed frequency less than expected frequency:



teachers the major discrepancy in the distribution of praise is the loss by girls of West Indian origin of fractionally over nine percent of the time the teacher gives to praise and encouragement. This time, with over two percent from boys of West Indian descent, goes to children of European and girls of Asian origins. This latter group is the only one to gain more praise from both highly tolerant and highly intolerant teachers and is the only group in which the presence of a slight association between the praise and encouragement given by highly intolerant teachers and the self-concept can be detected (Appendix 37.5).

When the data are analysed on the basis of ethnic group only it is discovered that children of Asian origin gain more praise and encouragement time than their numbers would warrant whether they are taught by teachers who are highly tolerant or highly intolerant but it is only in the latter that a significant association between the use of praise and encouragement and the self-concept of children of Asian origin is present (Appendix 37.6). As far as praise and encouragement are concerned the children of European origin stand to gain in those classes taught by highly intolerant teachers but lose in those classes taught by highly tolerant teachers with the reverse being true for those children of West Indian origin (Appendix 36.4). The differences in the use of praise which have appeared between teachers of different levels of ethnocentrism are again vividly illustrated when skin colour forms the basis of the analysis (Appendix 36.5). Black children gain considerable additional praise in the class of the highly tolerant teacher and this shows a slight association with the children's self-concept. White children, to a lesser extent, gain additional praise in the class of the highly intolerant teacher where the self-concept of black children shows a very significant association with the limited amount of praise and

encouragement they receive (Appendix 37.7).

When praise and encouragement is being given orally in the multi-ethnic classroom no preference is shown to either boys or girls by either highly tolerant or highly intolerant teachers (Appendix 36.6) but when praise and encouragement is used by highly intolerant teachers there appears to be a highly significant association with the self-concept of their girl pupils (Appendix 37.8).

The observations recorded in this category are those responses made by the teacher in praise of those contributions made by children which the teacher evaluates as being worthy of recognition. The criteria against which such judgements are made will, inevitably, differ from teacher to teacher and also, on occasions, in respect of individual children. Such distinctions, whilst not unimportant, are not recorded in this analysis since the primary concern here is to identify the teacher's contributions to the overt interaction because it is these outward signs of approval, given in praise, which the child perceives and internalizes and which may influence the image he develops of himself. The child is as much an observer of praise and encouragement as is the researcher.

Praise is given in the multi-ethnic classroom irrespective of the sex of the child but appears to be greatly influenced by the level of the teacher's ethnocentrism and the child's ethnic descent. The evidence shows that highly tolerant teachers favour children of Asian and of West Indian origins when using praise and severely restrict its use with children of European descent. Children of European and of Asian origins gain preference in the classes of highly intolerant teachers who

give only minimal praise to children of West Indian descent. In those multi-ethnic classes taught by teachers of extreme levels of ethnocentrism there appears to be some imbalance in the use of praise and encouragement between the children of different ethnic origins.

The acceptance and use of children's ideas (C3):

There is substantial evidence<sup>(1)</sup> to suggest with confidence that a child's view of himself as a learner is likely to be very strongly influenced by the manner in which his contributions to the activity of the classroom are handled by the teacher as this behaviour, on the part of a very significant person, will tell the child something about his ability to understand and to be understood. The acceptance and use of children's ideas by the teacher may be of considerable importance to the child since it acts as a stamp of professional approval in a rather more definitive manner than a simple oral acknowledgement given in a comment of praise. If acceptance of ideas and their use by the teacher is a measure of success which can lead to an enhancement of the self-concept then the rejection of ideas is an indication of failure which will lead to a deflation of the child's concept of himself and a lowering of confidence in the classroom. Where the teacher in the multi-ethnic classroom consistently overlooks, either by design or chance, the contributions of any particular child or group of children failure will rapidly be learned, inferiority established and frustration generated. This category of interaction may be of significance in the development of the self-concept because ideas are essentially personal constructs produced by individuals

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1. Lecky, Prescott, Self-consistency: A Theory of Personality.  
Island Press, 1945.

so their acceptance or rejection by the teacher is likely to have strong personal implications: to accept or reject an idea of a child is tantamount to accepting or rejecting the child. When engaged in accepting and using children's ideas the heavy responsibility of the teacher in the multi-ethnic school is clear and the importance of the following analysis is unambiguous.

Teachers in the sample who are ethnically highly tolerant spent almost five percent of their total teaching time accepting and using the ideas contributed by children which is only slightly higher than their highly intolerant colleagues (HTT 4.54%; HIT 3.36%). Of this time highly tolerant teachers spend just under eighty-six percent using children's ideas in the course of individual teaching. This is generally, although not exclusively, by developing the idea with the child who made the contribution in the first place. The remaining fourteen percent of the time spent in this mode of teaching is used by accepting individual children's ideas and then developing them with the class as a whole. Of the time they give to this mode of teaching highly intolerant teachers spend much more of it working with the class as a whole accepting children's ideas from individuals and then switching fairly rapidly from the contributor to the development of the idea with the whole class (HTT 14.3%; HIT 23.55%). One consequence of this way of handling children's ideas is a fairly rapid change by the highly intolerant teacher from using the children's ideas as such and moving into direct teaching which results in these teachers giving over nine percent less attention to the ideas of individual children (HTT 85.7%; HIT 76.45%) and is a contributory cause of the lower proportion of total teaching time given by highly intolerant teachers to this activity.

When the distribution which takes place between the teacher and the boys and girls of the three ethnic groups is analysed it is found that highly tolerant teachers give preferential attention to the ideas contributed by boys and girls of Asian and of West Indian origins drawing the extra time from that which would, in an even distribution, have gone to the children of European origin, especially the boys who receive almost eight percent less than their fair share of this form of teaching. Highly intolerant teachers favour boys and girls of European origin taking time which would otherwise have gone to children of West Indian origin especially girls who, in the process, lose over seven percent of what would otherwise have been a fair allocation of time to the acceptance and use of their ideas (Table 15). The ideas of Asian boys are given preferential attention whether they are in classes taught by teachers who are highly tolerant or those who are highly intolerant. In this analysis there are no significant associations between the use of children's ideas by either highly tolerant or highly intolerant teachers and the self-concept of boys and girls of the three ethnic groups (Appendix 37.9).

The pattern of interaction between the teachers and the children involving this category is so distinct that when the sex variable is controlled little which was unforeseen in the earlier analysis emerges. Children of Asian and of West Indian origins gain at the expense of children of European descent in classes taught by highly tolerant teachers and in classes taught by highly intolerant teachers we find that the ideas of children of European origin are given preference with children of West Indian origin losing almost twelve percent of their fair share of attention (Appendix 36.7). Children of Asian origin benefit from either group of teachers in that when they are taught by highly tolerant

TABLE 15:

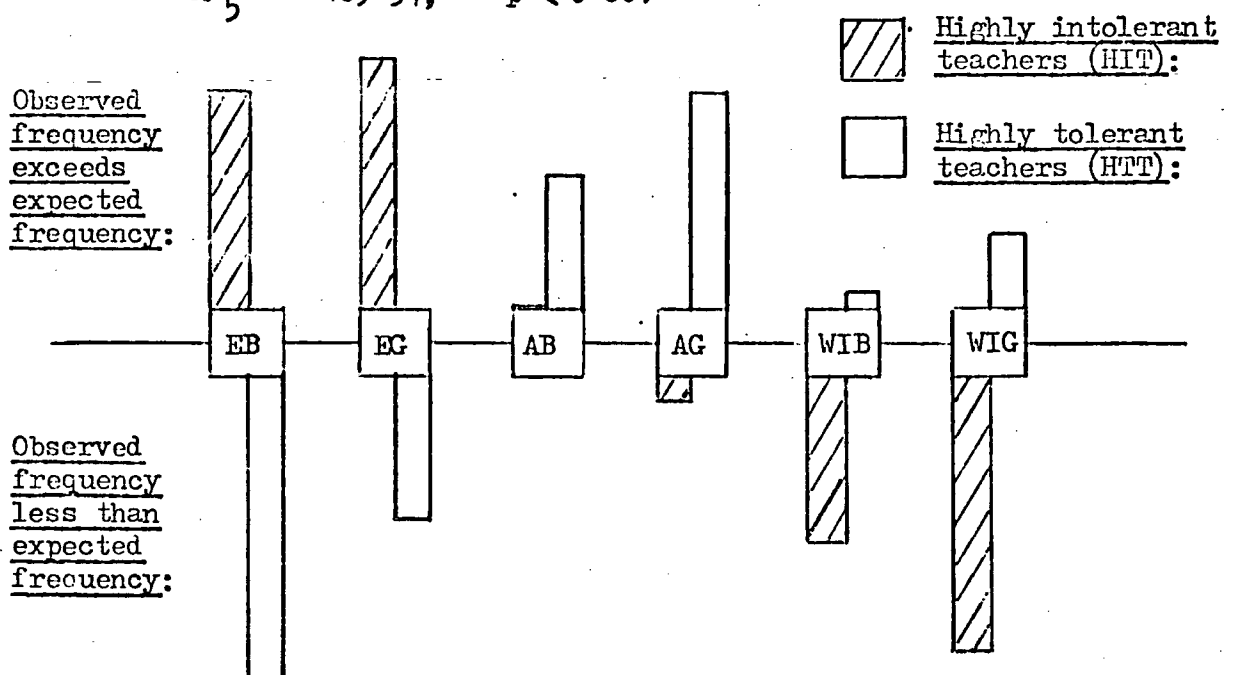
Distribution of individual teaching time given to the acceptance and use of children's ideas (category 3) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C3HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	507	454	238	338	239	268	2044
$f_e$	667	529	168	222	229	229	2044
$(f_o - f_e)$	-160	-75	+70	+116	+10	+39	
% of total	-7.83	-3.67	+3.42	+5.68	+0.49	+1.91	

$$\chi^2_5 = 145.87; \quad p < 0.001$$

C3HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	413	364	157	149	119	67	1269
$f_e$	343	282	155	155	175	159	1269
$(f_o - f_e)$	+70	+82	+2	-6	-56	-92	
% of total	+5.52	+6.46	+0.16	-0.47	-4.41	-7.26	

$$\chi^2_5 = 109.54; \quad p < 0.001$$



teachers they gain nine percent extra attention to their ideas and when taught by highly intolerant teachers they virtually achieve their correct share of the time given to this element. There is a slight suggestion of some association between the use by highly tolerant teachers of the ideas of children of Asian origin and their self-concept (Appendix 37.10).

The colour variable analysis shows nothing which, given the findings above, would not be expected: white children lose to black children over eleven percent of an equal distribution of the highly tolerant teacher's attention to ideas and gain from black children an almost equal amount in the class of the highly intolerant teacher (Appendix 36.8). There is a significant association between the self-concept of black children and the use that highly tolerant teachers make of the ideas these black pupils contribute to the interaction of the multi-ethnic class (Appendix 37.11).

As far as the use and acceptance of children's ideas in the multi-ethnic classroom is concerned little advantage in terms of time is gained by either boys or girls with the possible exception of a very slight benefit to girls taught by highly tolerant teachers (Appendix 36.9). However, there is a very highly significant association between the use which highly intolerant teachers make of the contributions of girls and their self-concept (Appendix 37.12).

In the multi-ethnic classroom the educational importance of accepting and using children's ideas is likely to extend beyond the direct influence such an activity has upon the self-concept of individual children of whatever ethnic origin. This is because the psychological processes of identification and imitation will almost certainly not remain

dormant during consistent rejection by the teacher and will influence the responses which the children themselves make to the teacher's own ideas. In the class where any individual child, or where any group of children, receives only minimal acceptance and use of their ideas as, for example, when children of West Indian origin are taught by a highly intolerant teacher, those children, assuming the characteristics of the dominant figure in their experience of handling ideas, may themselves find some difficulty in accepting and using those ideas introduced by the teacher. Such a psychological constraint is likely to influence not only the child's concept of himself, particularly as a learner, but also the perception others have of him or his ethnic group. Rejecting, ignoring or giving less than adequate acceptance and use to children's ideas is an efficient method of causing frustration and teaching failure in the multi-ethnic classroom. On the basis of the evidence from our small sample those who appear to be at most risk when this mode of teaching is being used are probably those boys of European origin in classes taught by highly tolerant teachers and girls of West Indian origin who are taught by teachers who are highly intolerant.

Questions asked by the teacher (C4):

Oral questions, as part of any teacher's 'stock-in-trade', are used in the multi-ethnic classroom, as in any other, in a variety of ways and for a number of very different purposes. The questions coded in this category are "invitations to participate"<sup>(1)</sup> but as the invitation may be an embarrassment to some children and as it is the teacher who

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1. Flanders, Ned A., Analyzing Teaching Behavior. Addison-Wesley Publishing Co. Inc. 1970, p.45.

decides on the purpose of the questioning, controls the nature of the questions and, to a large extent, regulates who shall respond and therefore participate, a detailed study of our observations of this element of interaction in the multi-ethnic classroom is clearly appropriate. Provided that the child wishes to participate, and has the necessary confidence to do so, then to be selected is likely to boost the self-concept with the possibility of further enhancement if the response which is given is acceptable to the teacher and attracts some form of praise. On the other hand to want to take part but to be ignored is almost certainly to lead to a deflation of the self especially where enthusiasm is accompanied by a confidence in one's ability to contribute something worthwhile. Moreover, children of different ethnic origins are not likely to be completely unaffected by the preferences, if any, given by the teacher, either consciously or unconsciously, to those selected to respond to the "invitation to participate"<sup>(1)</sup>. The "invitations" can be issued either generally to the whole class, thus providing at least an impression of giving every child the opportunity to respond, or specifically to individual children. The more specific the invitation the more control the teacher exercises over the interaction whereas the more general invitation, involving all the class, is less restrictive.

Our observations show that after direct teaching questions take up most of the time in the class taught by the highly intolerant teacher who spends almost seventeen percent of the total teaching time using this mode of teaching. Highly tolerant teachers spend rather less time at about thirteen and a half percent of the total teaching time in

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1. Flanders, Ned A., Analyzing Teaching Behavior. Addison-Wesley Publishing Co. Inc. 1970, p.45.

questioning children. In each of the three ethnic groups both boys and girls are questioned by highly intolerant teachers for a slightly longer proportion of the total teaching time than their counterparts who are taught by highly tolerant teachers (Table 16).

TABLE 16:

Interaction time spent on questioning children in three ethnic groups as a percentage of the total interaction time spent with each group by highly tolerant and highly intolerant teachers:

Ethnic/sex groups.	Highly intolerant teachers (HIT).	Highly tolerant teachers (HTT)	Difference (HIT - HTT)
E.B.	15.07	12.59	+2.48
E.G.	14.24	10.43	+3.81
A.B.	18.47	14.20	+4.27
A.G.	19.36	12.89	+6.47
WIB.	17.37	15.05	+2.32
WIG.	18.07	15.82	+2.25

Of the time given to questions both highly tolerant and highly intolerant teachers give more to individual children (HTT 65.26%; HIT 58.54%) than they do to the class as a whole (HTT 34.74%; HIT 41.46%) which, in the light of the discussion above, seems to suggest that both groups of teachers may use the techniques of questioning as a control mechanism since questioning is very much a teacher-centred activity even when working with individual children.

How do teachers of different levels of ethnocentrism distribute the time they spend in giving questions between children of the different ethnic groups? In classes taught by highly intolerant teachers there

is a remarkably even distribution of question time apart from the greater amount given to boys of Asian origin. The additional 4.6% they gain comes mostly from girls of European origin who, at the lower end of the scale, find themselves relatively ignored. This is a situation which they could not avoid even if they were to move to a class taught by a highly tolerant teacher as once again they would find themselves attracting far less question time (-8.28%) than boys of Asian origin (+5.21%) and very considerably less than boys of West Indian origin who command most attention during question time (+8.51%) in these classes. However, when it comes to questions it is boys of European origin in the classes of highly tolerant teachers who lose more time than any other group (-8.32%); (Table 17). None of these distributions of questions by highly tolerant and highly intolerant teachers are associated with the self-concept of boys or girls of European, Asian or West Indian origins at a statistically significant level (Appendix 37.13).

Of the three ethnic groups which this study distinguishes it is the children of European origin who receive the least amount of time when questioning takes place in classes of both the highly tolerant and highly intolerant teachers. The largest discrepancies arise in the classes of highly tolerant teachers where children of European descent attract over sixteen percent less of the time these teachers give to asking questions, and children of West Indian descent over ten percent more, than their numbers would justify. There is a slight indication that this excessive time given to asking questions of children of West Indian origin is associated with their self-concept (Appendix 37.14). During questions from highly intolerant teachers it is children of Asian origin who receive the greatest amount of attention and they also gain additional attention in classes taught by less ethnocentric teachers (Appendix 36.10).

TABLE 17:

Distribution of individual teaching time given to asking questions (category 4) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C4HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	1126	815	622	539	911	615	4628
$f_e$	1511	1198	381	504	517	517	4628
$(f_o - f_e)$	-385	-383	+241	+35	+394	+98	
% of total	-8.32	-8.28	+5.21	+0.76	+8.51	+2.12	

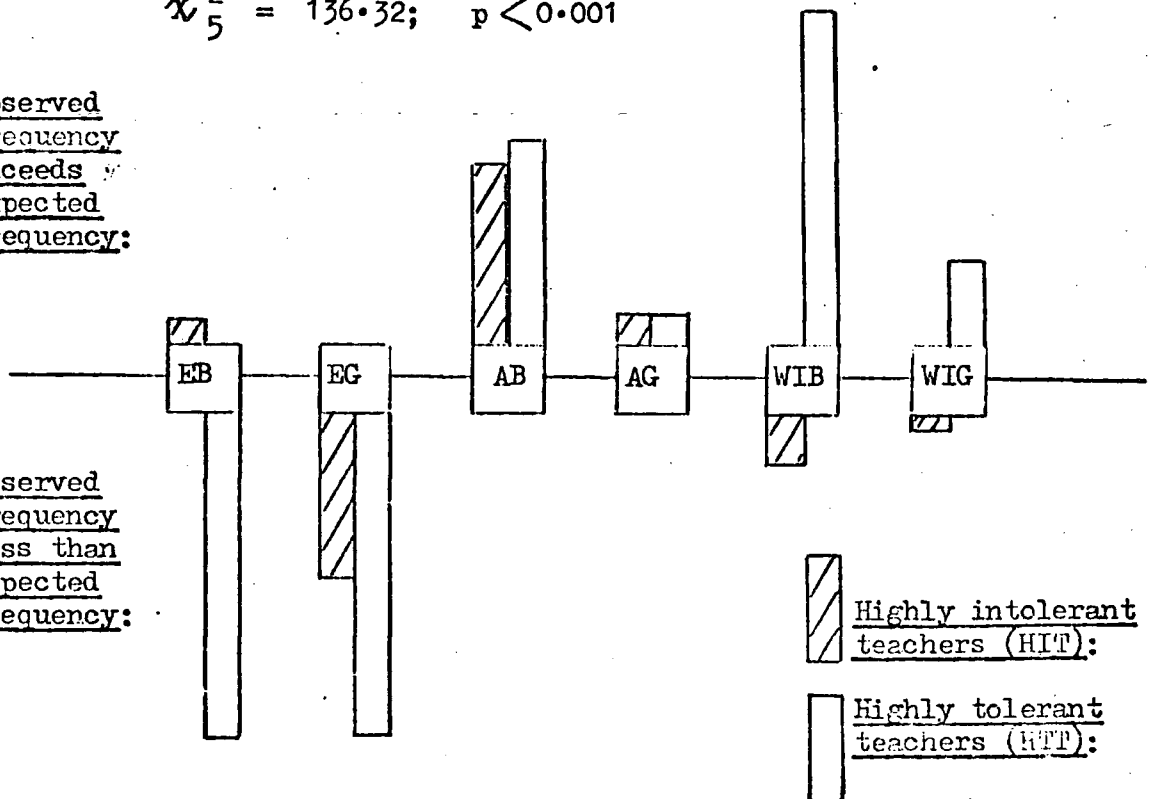
$\chi^2_5 = 694.26; p < 0.001$

C4HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	1350	877	825	631	608	596	4887
$f_e$	1317	1087	598	598	674	613	4887
$(f_o - f_e)$	+33	-210	+227	+33	-66	-17	
% of total	+0.68	-4.30	+4.64	+0.68	-1.35	-0.35	

$\chi^2_5 = 136.32; p < 0.001$

Observed frequency exceeds expected frequency:

Observed frequency less than expected frequency:



Given this situation in which the children of European origin find themselves receiving less attention during question time than the children of either Asian or West Indian descent it may be anticipated that the analysis on the basis of the colour variable would show that most of the time taken up by questioning, in both the highly tolerant and the highly intolerant teachers' classes, goes to black children. In the case of those black children taught by highly tolerant teachers they receive 16.6% more question time than their numbers would warrant and this is positively correlated at a significant level with their self-concept (Appendix 37.15). In classes taught by highly intolerant teachers the distribution of question time is relatively even with a discrepancy of only 3.8% in favour of the black child (Appendix 36.11): no association with the self-concept is evident.

As far as the distribution of question time between boys and girls is concerned there is a tendency, by both groups of teachers, to favour boys (Appendix 36.12) whose self-concept appears to be associated with the amount of question time they receive from highly tolerant and highly intolerant teachers (Appendix 37.16).

The prominence given to the use of questions in the professional activity of all teachers is very evident in the multi-ethnic setting. We find highly intolerant teachers using more of their teaching time questioning children than their more tolerant colleagues and spreading that time so that all children in each ethnic group are questioned more frequently than those children being taught by highly tolerant teachers. There are, of course, many reasons why teachers use questions, other than the most obvious one of testing, some of which may be pertinent to this analysis. Questioning, for example, enables

teachers to assert their authority by their acceptance or rejection of the pupils' responses and through a display of their superior knowledge. Furthermore, teachers are also in a position to use questioning to promote an atmosphere of conformity accepting and reinforcing only those responses which equate with their preconceptions. In the light of these possibilities it does seem probable that the preference over other modes of teaching given to questioning by those teachers who are ethnically highly intolerant may be the result of such considerations.

It will not escape attention however that highly tolerant teachers spend considerably more of the time they use for questioning directing their questions to children of Asian and West Indian origin particularly boys. If questioning is also used by these teachers as a form of control the evidence suggests that boys of Asian and West Indian origins may present more discipline difficulties to highly tolerant teachers than other children. Alternatively, highly tolerant teachers, with their lower overall use of questions, may have established some other form of classroom control (for example categories six and seven) which, whilst relying less on questioning as a means of control, permits the use of questions, with some children, in a positive manner to establish a rapport, to activate participation or to stimulate interest.

Observation indicates that highly tolerant teachers tend to ask questions of the whole class and then to select individual children to respond developing the interaction with the use of frequent supplementary questions. In these classrooms this approach led to relatively long periods of interaction during which children were encouraged to express their own ideas (category nine) and during which the highly tolerant teacher gave substantial time for children's responses to questions.

Questions used by highly intolerant teachers, whilst more frequent, tended to take less time in each sequence as the 'closed' type of question was used most frequently.

#### Direct teaching (C5):

The professional teacher's traditional responsibility is to dispense information passing on accumulated knowledge to a younger generation and although this somewhat restricted view of the teacher's role in British education has undergone some far-reaching changes since the implementation of the provisions contained in the 1944 Education Act there, nevertheless, remains a widely and firmly held opinion that this continues to be the major task of the professional teacher. There can be little doubt that this is also the view of teachers in multi-ethnic schools: teachers who are ethnically highly tolerant and those who are highly intolerant all employ the direct teaching mode far more extensively than any of the other approaches to teaching identified in the analysis which was used. These two extreme ethnocentric groups differ by only one percent in the amount of direct teaching in which they engage with highly tolerant teachers using 30.6% and highly intolerant teachers 31.6% of their total teaching time for this 'lecture' type teaching. There the similarities in the use of this mode stop: of the direct teaching in which highly tolerant teachers engage they use a very much greater proportion with individual children than highly intolerant teachers (HTT 55.86%; HIT 36.95%) which highlights the more individualistic approach to teaching adopted by highly tolerant teachers as distinct from the more collective emphasis given by highly intolerant teachers. This latter group use just over sixty-three percent of their direct

teaching working with the class as a whole.

Of the time associated with the direct teaching of individual children in those classes taught by the highly intolerant teachers in the sample most goes to boys of European origin and the least time to girls of West Indian origin which contrasts sharply with the situation in those classes taught by the highly tolerant teachers who give most of their direct teaching time to boys of West Indian origin and least time to boys of European origin (Table 18). Despite this less than expected amount of direct teaching received by boys of European origin it is they whose self-concept appears to be associated with the direct teaching given them since a very highly significant relationship has been discovered (Appendix 37.17). In classes taught by highly intolerant teachers it is the self-concept of girls of European origin which appears to be most closely associated with the amount of direct teaching they receive ( $p < 0.05$ ). The least inconsistency in the distribution of direct teaching by teachers of the two levels of ethnocentrism occurs with girls of Asian origin and, rather more so, with boys of the same ethnic group.

When the sex variable is controlled we discover that as far as direct teaching is concerned children of European origin gain most attention if they are taught by a teacher who is ethnically highly intolerant (+6.8%). This group uses time which more correctly should have been given to those children of Asian origin (-1.8%) and, more extensively, to those of West Indian origin (-5.0%). The exact reverse of this progression is discovered in those classes taught by teachers who are ethnically highly tolerant with children of West Indian origin commanding most time (+5.6%), with those of Asian origin next (+0.6%) and those of European origin receiving least time of all (-6.2%). The

TABLE 18:



Distribution of individual teaching time given to direct teaching (category 5) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C5HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	2433	2280	837	934	1438	1080	9002
$f_e$	2938	2330	742	980	1006	1006	9002
$(f_o - f_e)$	-505	-50	+95	-46	+432	+74	
% of total	-5.61	-0.56	+1.06	-0.51	+4.80	+0.82	

$$\chi^2_5 = 293.15; \quad p < 0.001$$

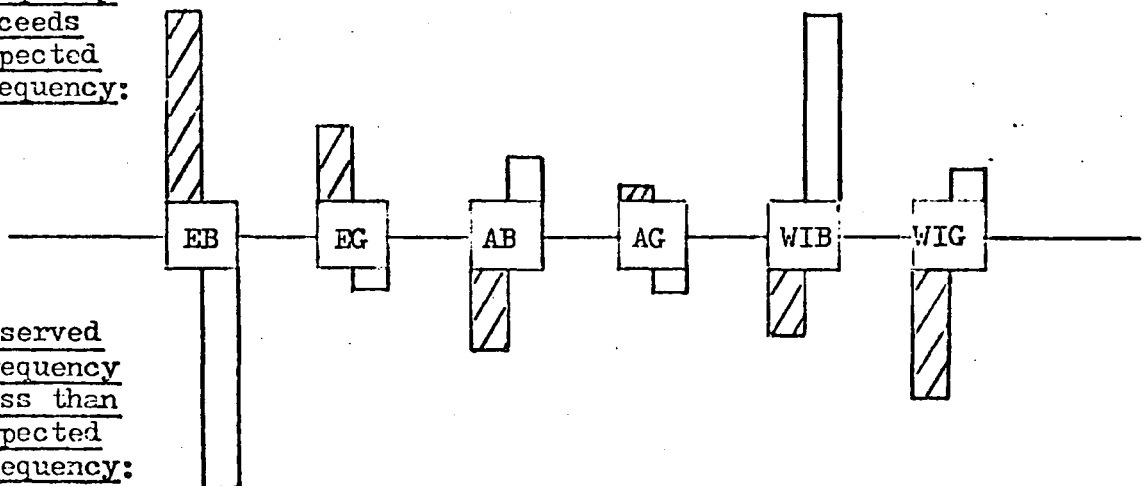
C5HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	1836	1394	583	728	698	531	5770
$f_e$	1555	1284	706	706	796	723	5770
$(f_o - f_e)$	+281	+110	-123	+22	-98	-192	
% of total	+4.87	+1.91	-2.13	+0.38	-1.70	-3.33	

$$\chi^2_5 = 145.37; \quad p < 0.001$$

 Highly intolerant teachers (HIT):  
 Highly tolerant teachers (HTT):

Observed frequency exceeds expected frequency:

Observed frequency less than expected frequency:



picture which emerges is one in which children of Asian origin command practically equal attention from either highly tolerant or highly intolerant teachers; children of European descent losing direct teaching to children of West Indian descent, in the class of the highly tolerant teacher but revealing an association between their self-concept and the direct teaching they receive and, in the class of the highly intolerant children of West Indian descent losing direct teaching to those of European descent (Appendix 36.13).

Following the evidence given above the excessive amount of direct teaching given to white children at the expense of black children by highly intolerant teachers and the greater preference during direct teaching given to black children at the expense of white children by highly tolerant teachers will not be unexpected, (Appendix 36.14).

When the data are analysed solely on the basis of the sex variable there are no significant differences in the distribution of direct teaching.

It appears that in this classroom activity, as far as the allocation of time is concerned, there are no real advantages to be gained by either boys or girls in the classes of those teachers holding strongly negative or strongly positive ethnic viewpoints, (Appendix 36.15).

Nevertheless, the use of direct teaching by the highly intolerant teacher appears to be associated with the self-concept of their girl pupils at a highly significant level whereas in classes taught by highly tolerant teachers the association is very slight (Appendix 37.20).

The results of our analysis of the way in which highly tolerant and highly intolerant teachers use the direct teaching mode point to some interesting characteristics of their respective multi-ethnic classrooms. Both the highly tolerant and highly intolerant teachers appear to give

equal importance, in practice, to the teacher's role as a dispenser of information but it seems that the highly intolerant teacher, with a strong emphasis on class teaching, is more likely to use direct teaching as a regulator of classroom behaviour. As direct teaching is, in itself, a teacher-originated and teacher-orientated activity it is one way in which the teacher can exert a large degree of control in the multi-ethnic classroom. Such control is most effective when direct teaching is used with the class as a whole and tends to become less so as the teacher works with individual children. This may indicate why highly intolerant teachers spend a very considerable amount of their teaching time using the direct teaching mode with their classes as a whole. They appear to want to control the interaction in their classrooms to a much greater extent than those teachers who are more ethnically tolerant and who attach more importance to their direct teaching of individual children thus developing a more child-centred approach to their work.

The extensive use which is made of didactic teaching by both highly tolerant and highly intolerant teachers may be a critical factor in the development of the child's self-concept if a real relationship between the two exists. However, we find that this type of teaching appears to be significantly associated with the self-concept only in children of European origin. All correlations calculated for boys and girls of Asian and of West Indian origins in classes taught by highly tolerant and highly intolerant teachers are at a very low level (Appendices 37.17/18/19).

However these data are analysed there is a persistent indication that those teachers who are ethnically highly intolerant, when engaged in direct teaching, have a tendency to give preferential attention to pupils of

European origin. Likewise we cannot avoid the observation that their colleagues, who are considerably less ethnocentrically inclined, seem to give preferential attention to children of West Indian origin when direct teaching is taking place. There appears to be some relationship between the children's ethnic origin and the teacher's behaviour when engaged in direct teaching and it is not difficult to appreciate how perplexing it must be for children of some ethnic groups to achieve the significance and the "place in another person's world"<sup>(1)</sup> essential to the development of a coherent self-concept especially when direct teaching is taking place in the multi-ethnic classroom as it does for almost one third of the time the child spends there.

Teachers' directions to the children (C6):

As the physical authority in the classroom teachers use directions in order to exercise control over children's behaviour which implies that such instructions are accompanied by the expectation that the child will comply with the command. The excessive reliance on directed activity by the teacher, which is observed in some classrooms, reflects an authoritarianism which, in time, will tend to lessen the child's ability to become a self-functioning person confident in the acceptability of his own actions. This weakening of the capacity for self-initiated activity by the dominance of extrinsic demands encourages the child to abdicate from a personal responsibility for his actions which, in extreme cases, makes serious inroads into his level of

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1. Laing, R.D.,

Self and Others.  
Penguin Books, 1973, p.136.

confidence and undermines the stability of the self-concept. In the multi-ethnic classroom such considerations are no less important and, because of the visual distinctions which are so clearly apparent to the teacher and the children, may be more influential especially where boys and girls of any particular ethnic origins attract more or less directives which will then become part of the adopted stereotype of an ethnic group.

Highly intolerant teachers utilize directions slightly more than highly tolerant teachers taking over twelve percent of their total teaching time in this mode of teaching in contrast to just over ten percent by those who are less ethnocentric. Of the time spent giving directions the highly tolerant teacher uses slightly more collective commands to the class as a whole than the highly intolerant teacher who gives directives in more individual terms (Appendices 39 and 40). Both groups of teachers however use virtually the same proportion of the time they spend in whole class teaching giving directions to the class en masse (HTT 13.63%; HIT 13.00%) so there is no significant difference in their use of directions when they are class teaching.

The major differences lie in the extent to which teachers of these extreme ethnocentric levels use directions with boys and girls of the different ethnic groups in their classes. The first apparent feature is the less than expected time used in giving directions to boys and to girls of European origin by both groups of teachers. This is the only mode of teaching in our analysis in which we find teachers of both levels of ethnocentrism treating both boys and girls of European origin in the same manner although at different levels (boys: HTT -7.92%; HIT -4.45% and girls: HTT -4.33%; HIT -1.61%). Boys and girls of European origin receive, and may possibly require, rather less oral

direction of their activity in the multi-ethnic classroom in order to meet the requirements of the teacher of European origin however tolerant or intolerant of ethnic differences the teacher may be. The second outstanding feature is the extra amount of time spent in giving directions to boys of West Indian origin by highly tolerant teachers (+9.67%) and to girls of the same ethnic group by highly intolerant teachers (+8.34%). The extra time spent by highly tolerant teachers in giving directions to boys of West Indian origin (as distinct from the even balance maintained by more intolerant teachers) suggests that this group of boys find it more difficult to be acceptably self-functioning within the relatively less structured organisation of the highly tolerant teacher's classroom. It appears that girls of West Indian origin may be able to cope with the more relaxed atmosphere encouraged by highly tolerant teachers but do not appear to be amenable to the more rigid and formalised organisation within those classes taught by highly intolerant teachers (Table 19) and as a consequence attract more directives. The self-concept of girls of West Indian origin taught by highly tolerant teachers shows a highly significant association with the amount of time their teachers spend giving them directions. This time amounted to just under thirty percent less than what these girls would have received in an equal distribution of the time highly tolerant teachers spent giving directions. All other correlations are at a very low level and are not statistically significant which is also the case in those classes taught by highly intolerant teachers except for boys of West Indian origin. These boys receive virtually the expected amount of the time highly intolerant teachers use in giving directions and this appears to be slightly associated with the boys' self-concept (Appendix 37.21).

As an ethnic group children of West Indian origin attract more

TABLE 19:

Distribution of individual teaching time spent in giving directions (category 6) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C6HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	736	642	413	332	621	234	2978
$f_e$	972	771	245	324	333	333	2978
$(f_o - f_e)$	-236	-129	+168	+8	+288	-99	
% of total	-7.92	-4.33	+5.64	+0.26	+9.67	-3.32	

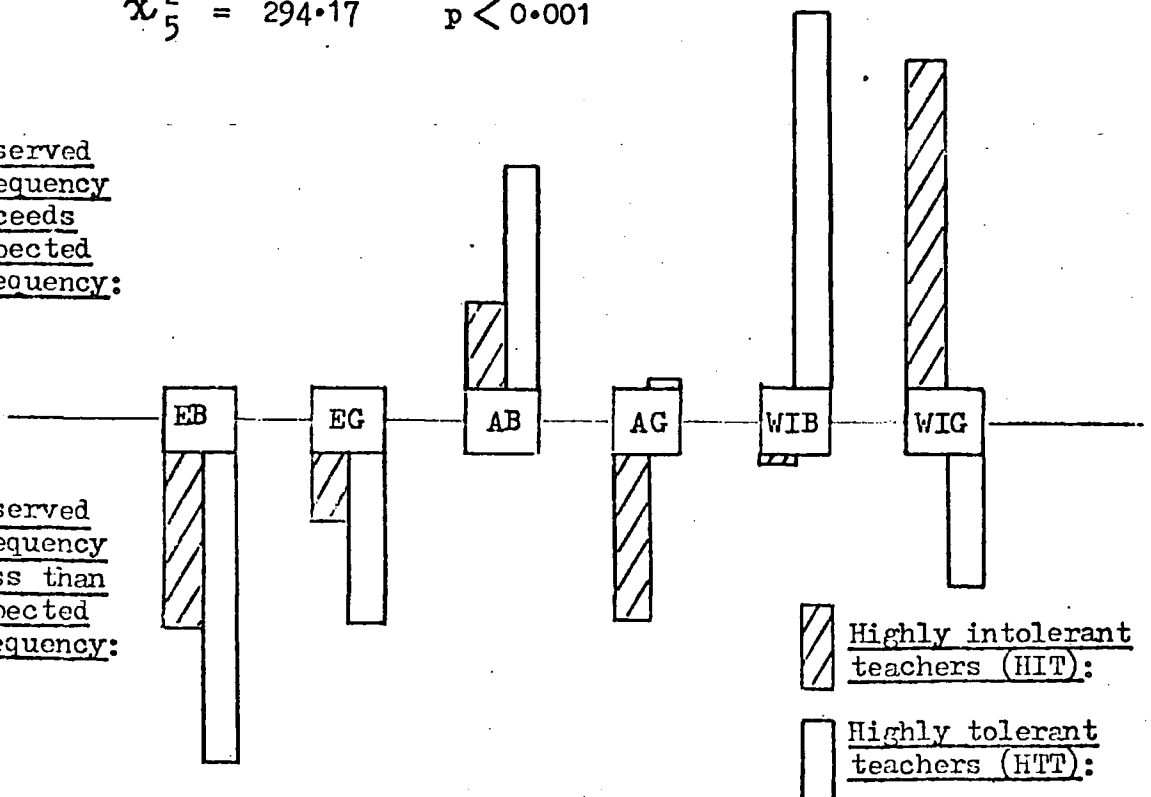
$\chi^2_5 = 472.80; \quad p < 0.001$

C6HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	799	733	513	283	481	741	3550
$f_e$	957	790	434	434	490	445	3550
$(f_o - f_e)$	-158	-57	+79	-151	-9	+296	
% of total	-4.45	-1.61	+2.22	-4.25	-0.25	+8.34	

$\chi^2_5 = 294.17 \quad p < 0.001$

Observed frequency exceeds expected frequency:

Observed frequency less than expected frequency:



directions from both highly tolerant (+6.4%) and highly intolerant teachers (+8.1%) than any other ethnic category. With children of Asian descent also receiving more directions from highly tolerant teachers than from those who are highly intolerant it seems that they also may experience some difficulty in functioning acceptably in what appears to be the more relaxed and more child-centred activity of the highly tolerant teacher's class (Appendix 36.16). From the analysis of ethnic group membership the correlations obtained between the self-concept and the use of directions by highly tolerant and highly intolerant teachers are all very low and statistically insignificant (Appendix 37.22).

The less than expected time spent in giving directions to children of European descent already identified above leads to the inevitable observation that black children attract more than their fair share of directions from both highly tolerant and highly intolerant teachers but what will not be so obvious from the earlier sections of this report on this particular category of interaction is that highly tolerant teachers spend twice as much time giving directions to black children as highly intolerant teachers (Appendix 36.17). Where black children are concerned the teacher-centred approach of the ethnically highly intolerant teacher does not seem to necessitate such a high level of overt teacher-direction as the more child-centred approach of the ethnically highly tolerant teacher. No association between this mode of teaching, the self-concept and skin colour is apparent (Appendix 37.23).

When we compare boys with girls we find that boys, especially those of Asian and of West Indian descent, take up more of the time highly tolerant teachers spend in giving directions than girls but in classes taught by highly intolerant teachers it is girls who take up most of this

time due, exclusively, to the extra time given to girls of West Indian descent (Appendix 36.18). Boys show a significant association between the level of their self-concept and the amount of time highly intolerant teachers spend giving them directions and a weak association is also evident in boys taught by highly tolerant teachers (Appendix 37.24).

Criticism of children and justification of the teachers' authority (C7):

Negative criticism, which is the concern of this category, is, when given orally in the multi-ethnic classroom, a public indicator of failure which, when given excessively, can be detrimental to the self-concept of the individual child. Where the teacher has an over-riding concern to improve standards of work and behaviour children, who may find the perfection sought difficult, if not impossible, to achieve, will tend to become demoralized and will develop increasing feelings of their inadequacy as learners. Feeling a failure the child in the multi-ethnic class is likely to become one if he is subjected to undue negative criticism and the opinion that he holds of his personal worth is likely to diminish as the criticism increases. If a teacher accentuates the child's apparent deficiencies the level of work will deteriorate thus augmenting the child's feelings of inferiority and resentment towards the over critical authority figure. Moreover the avoidance of any gross imbalance in giving criticism in the multi-ethnic classroom is also important because where oral negative criticism of members of a particular ethnic group is extensive, and when it is publicly announced, the image of that group, held by other children, will tend to become debased as the perceived criticism of individual representatives is generalised to the group. Negative criticism is also contained in the use of extreme

self-reference by the teacher so those occasions when teachers justify their authority in this way are included in this category. This negative form of coerciveness, initiated by some teachers to enforce the compliance of children, may also convey to the child a sense of failure no less influential in the development of the child's self-concept than other excessively authoritarian approaches of the teacher and certainly no less obvious to all members of the multi-ethnic class.

Ethnically highly tolerant teachers in our sample spent only fractionally more of their total teaching time using criticism than their highly intolerant colleagues (HTT 5.48%; HIT 4.68%). It might reasonably have been expected that such a similarity in the overall use of negative reinforcement would be unlikely to occur between such extreme tolerance groups but the greater use of criticism with individual children observed in highly tolerant teachers tends to reduce the numbers of children actively affected at any one time and may, therefore, lead to a more time consuming use of criticism. Of the time highly tolerant teachers spend in using criticism 76.45% is directed towards individual children, slightly more than the 73.1% highly intolerant teachers use from the time they spend in criticizing children's work and behaviour. The time remaining to each group of teachers is used in the collective criticism of the whole class.

Boys of West Indian origin attract more criticism than any other group of children receiving more than their fair share in the classes of both highly tolerant and highly intolerant teachers (Table 20). From highly tolerant teachers they receive over eleven percent more of the time these teachers spent in criticism, than they would have done given an equitable distribution, compared to the extra two and a half percent of

TABLE 20:

Distribution of individual teaching time spent criticizing pupils or given to justifying the teacher's authority (category 7) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C7HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	742	533	228	121	490	90	2204
$f_e$	720	570	182	240	246	246	2204

$(f_o - f_e)$  +22      -37      +46      -119      +244      -156

% total +1.00      -1.68      +2.09      -5.40      +11.07      -7.08

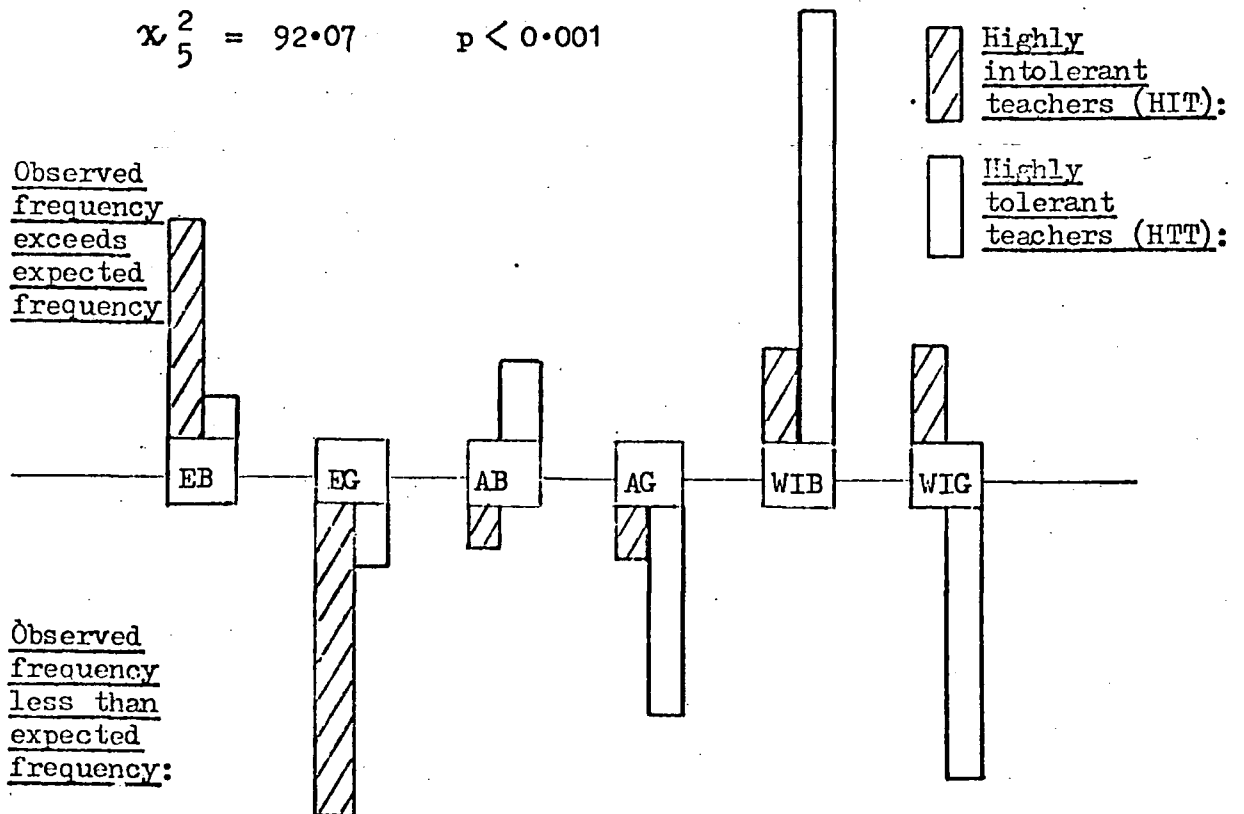
$\chi^2_5 = 414.65$        $p < 0.001$

C7HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	557	240	189	186	278	255	1705
$f_e$	459	379	209	209	235	214	1705

$(f_o - f_e)$  +98      -139      -20      -23      +43      +41

% total +5.75      -8.15      -1.17      -1.35      +2.52      +2.40

$\chi^2_5 = 92.07$        $p < 0.001$



the highly intolerant teachers' time. In the highly tolerant teacher's class the excess time comes mainly from that which would, in an equitable distribution, have gone to girls of Asian and of West Indian origin and in the class of the highly intolerant teacher the extra time comes from girls of European origin (Table 20). These girls of European origin receive, from highly intolerant teachers, almost 37% less criticism than would be expected in an equitable distribution and this appears to be associated with their self-concept ( $p < 0.05$ ). In classes taught by highly tolerant teachers boys of Asian origin receive just over 25% more criticism than would be expected and this is also positively correlated at a significant level with their self-concept (Appendix 37.25).

Control of the sex variable highlights the extra time given by highly tolerant and highly intolerant teachers to the criticism of children of West Indian origin. It is interesting to note that of the ten interaction categories this and category six, in which the giving of directions by the teacher is recorded, are the only two in which highly tolerant and highly intolerant teachers are in accord when interacting with children of West Indian origin and both categories record interaction which is "intended to produce compliance"<sup>(1)</sup>. Both groups of teachers show a uniformity in their use of criticism with children of different groups and in this analysis children of European and of Asian origins receive less criticism than their numbers would warrant. Negative critical appraisal is given excessively to children of West Indian descent (Appendix 36.19) but it is only when it is used by teachers who are highly tolerant that we find any significant association with the self-concept of these children (Appendix 37.26).

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1. Flanders, N.A.,

Analyzing Teaching Behavior.

Addison-Wesley Publishing Co. Inc. 1970, p.47.

The uniformity in approach to the distribution of criticism by highly tolerant and highly intolerant teachers continues to show in the analysis when related to white and black children. The extent to which criticism is directed towards children of West Indian origin is sufficient to give some prominence to the excess of criticism given to black, as distinct from white, children (Appendix 36.30). In this analysis a highly significant relationship is detected between the self-concept of black children and the criticism they receive from highly tolerant teachers (Appendix 37.27).

All the evidence indicates that boys undoubtedly attract, from both tolerance groups of teachers, much more of the time given to criticism than do girls with highly tolerant teachers giving exactly twice as much extra time to criticizing boys than highly intolerant teachers. Highly tolerant teachers give extra time to criticizing boys in each of the three ethnic groups taking the time in each case from the girls in each ethnic group. It appears that teachers with extreme ethnocentric views find some cause to direct most criticism towards boys and, in the case of the highly tolerant teacher, especially towards boys of West Indian origin (Appendix 36.21). The sex of the child appears to be an influential factor in any association there may be between the self-concept of boys and girls and the use made of criticism by both highly tolerant and highly intolerant teachers (Appendix 37.28). The most prominent feature is the very highly significant association detected between the self concept of girls and the criticism directed towards them by highly tolerant teachers.

These analyses have dealt with negative criticism designed to alter the responses and behaviour of children from that which teachers

find unacceptable. Where this form of negative criticism is excessive (as defined by more time being spent with a group than their numbers would warrant in an equitable distribution) we may anticipate some adverse effects on the development of the self-concept. There is a weight of research evidence which suggests "that strong criticism had significant negative relationships with achievement"<sup>(1)</sup> and, although there are some inconsistencies in the results of research, there is an indication that a positive correlation exists between mild criticism and academic achievement<sup>(2)</sup>. In our study the criticism used by highly intolerant teachers appears to be associated with the self-concept of girls particularly those of European origin who, as a group, received substantially less criticism than would have been expected whereas the criticism used by highly tolerant teachers seems to be most closely associated with the self-concept of black children especially girls. Our observations in multi-ethnic classrooms lead to the tentative suggestion that what is important is not so much the strength of criticism but the positive-negative nature of the comment, its relationship to explicit standards (which, for the critical comment to be fully effective, must be understood and accepted by the child) and the manner in which the criticism is made by the teacher.

Children's oral responses to teachers' initiatives (C8):

Flanders' description of this category of interaction as "talk

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- |    |                                      |  |
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| 1. | Westbury, Ian &<br>Bellack, Arno A., | <u>Research into Classroom Processes: recent<br/>developments and next steps.</u><br>Teachers College Press, 1971, p.75. |
| 2. | Perkins, H.V.,                       | <u>Classroom behavior &amp; under-achievement.</u><br><u>Amer. educ. Res. Jnl.</u> 1965, 2, pp.1-12.                     |

by pupils in response to teacher"<sup>(1)</sup> overlooks one important feature which may have a greater degree of significance in the multi-ethnic classroom than in one which is more conventional. After the teacher has initiated the interaction he usually then has to choose who shall respond and it is this process of selection and non-selection within the multi-ethnic class which may tend to impinge upon the self-concept of children of different ethnic origins who may, for their part, interpret selection as personal acceptance and non-selection as personal rejection. The importance of a balanced application of professional discrimination is especially pertinent since choice, as an exercise of the teacher's authority, gives permission for the child to become actively and visibly involved if he so wishes. On the other hand it is open to the teacher to make a selection which is unsolicited and unwelcomed by the child who is chosen to respond and may, in these circumstances, reinforce negative elements of the self-concept. However this latter type of interaction is not included in this category and the data presented here may be interpreted as being those responses willingly made by children in multi-ethnic classes after initiation and genuine selection by the teacher. The initiation employed by the teacher relies to a large extent in the observations included here upon relatively closed questions which seek to stimulate a response which conforms to the teacher's preselected answer. It is very much a 'right or wrong' convergent approach which limits the expression of the child's own ideas (which are included in category nine of this analysis).

In those classes taught by highly tolerant teachers just over

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1. Flanders, Ned A., Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. Inc.  
1970, p.45.

thirteen and a half percent of the total teaching time is given to the children's responses compared with slightly over sixteen percent in classes taught by highly intolerant teachers (HTT 13.5%; HIT 16.19%). A reason for this small difference might emerge if the total time given to children's talking in response and initiation is considered. When the observations in category eight (response) and category nine (initiation) are put together we discover a remarkable similarity in the proportions of time given to children's talking by both groups of teachers in that highly tolerant teachers give 20.92% of their total teaching time to pupil's talking compared with 20.81% given by highly intolerant teachers. Given this very precise balance in the time given to children's talking, by both sets of teachers, the minor differences in the time given by each tolerance group to children's responses and initiatives is a matter of emphasis. Highly intolerant teachers, in giving more time (+2.66%) than their more ethnically tolerant colleagues to children's responses, encourage an atmosphere of conformity in which they initiate contact with the children whereas the additional time given to children's initiatives by highly tolerant teachers (+2.77%) indicates the development of a less restrictive climate in which the child finds encouragement to expand his early initiatives in a creative manner. Highly tolerant teachers have a tendency to promote divergence (which may account, in some measure, for their slightly greater use of criticism); highly intolerant teachers seem to encourage convergence.

Children's comments made in response to teachers' initiatives may be made collectively particularly in small group work in Junior and Middle Schools. The technique was used more by highly tolerant teachers, who used in this way 6.11% of all the time given to children's responses, compared with 3.72% used by highly intolerant teachers.

The time remaining (HTT 93.89%; HIT 96.28%) is used with individual children with boys of Asian origin receiving more than their fair share of the time given to this mode of teaching by both highly tolerant and highly intolerant teachers. This concentration of category eight time (+14.07%) with boys of Asian origin reflects, in some measure, the additional time given, by both groups of teachers, to asking them questions (category 4). It also suggests that boys of Asian origin may tend to respond readily to questioning which then provides positive feedback for their teachers encouraging further interaction. No significant relationships between the time given to children's responses by highly tolerant and highly intolerant teachers and the self-concept of their pupils is present (Appendix 37.29).

The pattern of distribution presents a confused picture (Table 21) until the sex variable is controlled when it can be seen that highly tolerant teachers give a very clear preference to children of Asian origin and, to a lesser extent, to children of West Indian origin. Children of Asian origin also gain extra time from teachers who are highly intolerant together with children of European origin (Appendix 36.22). Analysis by ethnic group only reveals a slight association between this mode of teaching and the self-concept of children of European origin taught by highly intolerant teachers (Appendix 37.30).

The patterns of distribution already reported are reflected in the analysis of the data when they are related to children's skin colour (Appendix 36.23). The additional time given to black children by highly tolerant teachers in every other category of interaction is replicated in the twelve percent extra time given by these teachers to the responsive talk of black children. Highly intolerant teachers have a

TABLE 21:

Distribution of individual teaching time given to children's responses to teachers' initiatives (category 8) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

CSHTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	1631	1466	1082	833	1043	627	6682
$f_e$	2181	1729	551	727	747	747	6682
$(f_o - f_e)$	-550	-263	+531	+106	+296	-120	
% of total	-8.23	-3.94	+7.95	+1.59	+4.43	-1.80	

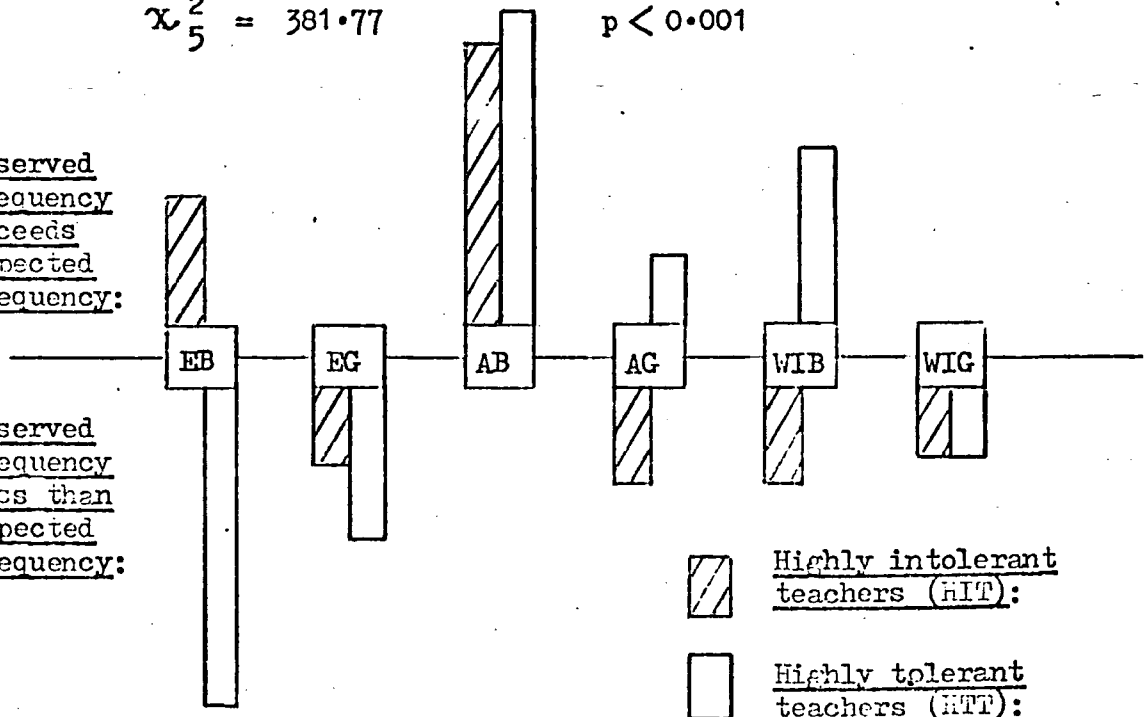
$\chi^2_5 = 842.45 \quad p < 0.001$

CSHIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	2312	1552	1412	737	859	823	7695
$f_e$	2074	1713	941	941	1061	965	7695
$(f_o - f_e)$	+238	-161	+471	-204	-202	-142	
% of total	+3.09	-2.09	+6.12	-2.65	-2.62	-1.85	

$\chi^2_5 = 381.77 \quad p < 0.001$

Observed frequency exceeds expected frequency:

Observed frequency less than expected frequency:



Highly intolerant teachers (HIT):

Highly tolerant teachers (HTT):

very slight tendency to give white children extra time for their responses but the data do not allow any further generalization to be made. In neither case is there any significant association with the self-concept of black children (Appendix 37.31).

Highly tolerant and highly intolerant teachers give boys more time for this form of interaction than they give to girls (Appendix 36.24). The small amount of extra time given to boys by highly tolerant teachers (+4.2%) goes to those of Asian and of West Indian origins and the additional 6.6% given by highly intolerant teachers goes to boys of European and of Asian origins. Any advantage to be gained from this mode of teaching will probably accrue to boys of Asian descent since, as far as they are concerned, the level of their teacher's ethnocentrism appears to make no significant difference when this activity is taking place in the multi-ethnic classroom. It appears from our evidence that the sex of the children may be a crucial factor in any association which may be present between the use of this mode of teaching and the self-concept of the pupils. In classes taught by highly intolerant teachers the self-concept of boys ( $p < 0.05$ ) and of girls ( $p < 0.02$ ) appears to be strongly associated with their responses to the teacher's initiatives. In the class taught by highly tolerant teachers an association is detected at a significant level only in girls (Appendix 37.32).

That there are some imbalances between ethnic groups in the time given to children's oral responses to the initiatives of teachers of different extreme levels of ethnocentrism is suggested by this analysis and that they effect, most prominently, boys of all three ethnic groups distinguished in this study.

The initiation by children of their own contributions (C9):

The teacher's involvement in the interaction recorded in this category is one of subtle encouragement and bold acceptance. Within a relatively relaxed educational atmosphere the teacher will generate children's opinions prompting them to expand their contributions and encouraging them to be independent in their thinking. Such questions as may be used by the teacher will be comparatively open allowing the opportunity for children to develop their responses along lines which have not been prescribed by the teacher. For their part the children will actively seek to make contact with the teacher and will feel free to elicit comment without oppressive constraints. In those classes where the teacher actively promotes children's initiatives it is likely that they will be encouraged to engage in creative activity involving a degree of divergence absent from the more formal classroom interactions.

Where opportunities are given for children to express their own ideas and interpretations and to introduce their opinion and comment they are able to exercise some influence on the work of the class and are likely to achieve in the process a feeling of their own worth. The opportunity for such development will be withheld from those who do not receive equal stimulation and an equal chance to introduce their own contributions and exert their own influence. Where imbalances in this type of interaction are introduced by the teacher in the multi-ethnic class, albeit unintentionally, a decline in confidence may result as those children who are neglected perceive that others are allowed a degree of independence and responsibility denied themselves. To restrict the opportunities that a child in any one ethnic group has to demonstrate what he himself has created in the form of ideas and opinions is to limit

the acceptance of that child's uniqueness as a person and to inhibit the development of his identity and the positive elements of his self-concept.

Accepting the importance of this particular mode of teaching we turn to the analyses of the empirical data. Of their total teaching time highly tolerant teachers give 7.39% to children's talk which the pupils themselves initiate which is in contrast to the 4.62% given by teachers who are highly intolerant. With the exception of boys of Asian origin all children in classes taught by highly tolerant teachers are allocated, for this activity, a greater proportion of the teaching time spent with boys and girls of their ethnic group than children taught by highly intolerant teachers (Table 22). As far as this particular

TABLE 22:

Interaction time used for the initiation of children's contributions as a percentage of the interaction time spent with each ethnic group by highly tolerant (HTT) and highly intolerant teachers (HIT):

Ethnic/sex groups.	Highly tolerant teachers (HTT).	Highly intolerant teachers (HIT).	(HTT - HIT)
E.B.	11.22	9.22	+ 2.00
E.G.	11.08	8.94	+ 2.14
A.B.	8.95	9.31	- 0.36
A.G.	11.24	6.32	+ 4.92
WIB.	10.21	5.97	+ 4.24
WIG.	13.84	2.12	+11.72

activity is concerned it seems to be of some advantage for a girl of West Indian origin to be in a class taught by a highly tolerant teacher from whom she will get the most support for any creative enterprise she

initiates.

The distribution of the time given by highly tolerant teachers to the initiation of children's contributions shows that boys of European origin fare the worst since they are given 6.82% less time than they would receive in an equal distribution with girls of the same ethnic group also receiving less time than their numbers would warrant. The time which accrues as a result of this imbalance in the multi-ethnic class taught by a highly tolerant teacher is distributed between boys and girls of Asian and of West Indian origins all of whom receive more time in which to express their own ideas and opinions than their numbers would otherwise justify. The largest imbalance occurs in the class of the highly intolerant teacher where boys of European descent gain an additional 9.31% of the time given to the initiation of pupil's talk and girls of West Indian descent lose 9.44%. In the same class girls of European origin and boys of Asian origin also gain extra time for this activity with losses by girls of Asian and boys of West Indian origins. It seems that highly intolerant teachers may either fail to stimulate initiatives from boys and girls of West Indian origin (and to a lesser extent girls of Asian origin) or they simply deprive them of this form of interaction which provides the necessary conditions in which to develop initiatives. Boys of Asian descent gain extra time for the initiation of their contributions whether they are taught by highly tolerant or highly intolerant teachers (Table 23) but it is only when this mode of teaching is used by highly tolerant teachers that any association with the self-concept of these boys becomes apparent at a significant level. In classes taught by highly intolerant teachers it is only the self-concept of girls of Asian origin which appears to be associated with the opportunities given for pupils to initiate their own contributions to the

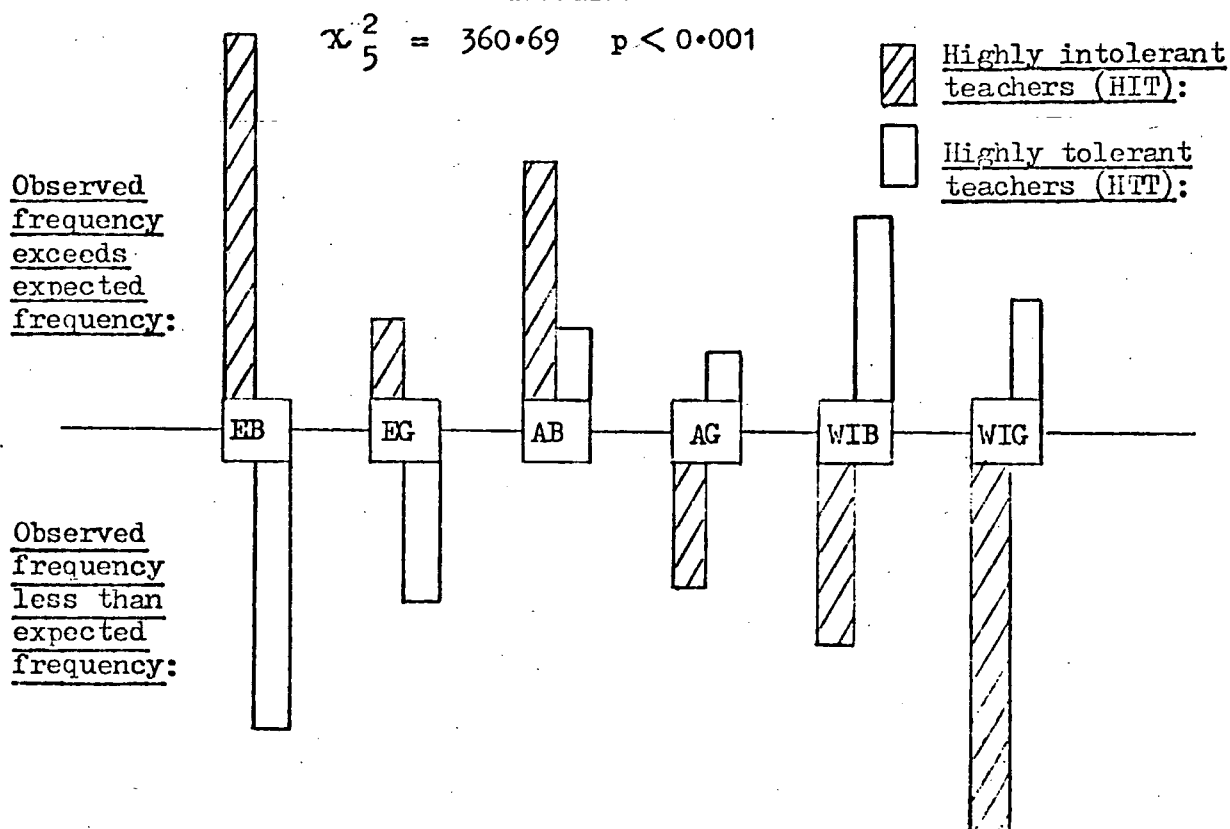
TABLE 23:

Distribution of individual teaching time given to the initiation of children's contributions (category 9) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C9HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	1003	866	392	470	618	538	3887
$f_e$	1268	1006	320	423	435	435	3887
$(f_o - f_e)$	-265	-140	+72	+47	+183	+103	
% of total	-6.82	-3.60	+1.85	+1.21	+4.71	+2.65	

$$\chi^2_5 = 197.66 \quad p < 0.001$$

C9HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	826	551	416	206	209	70	2278
$f_e$	614	507	279	279	314	285	2278
$(f_o - f_e)$	+212	+44	+137	-73	-105	-215	
% of total	+9.31	+1.93	+6.01	-3.20	-4.61	-9.44	



interaction in the multi-ethnic classroom (Appendix 37.33).

As it could reasonably be anticipated from the above analysis when the sex variable is controlled we discover children of Asian and of West Indian origins gaining time at the expense of children of European origin in classes taught by highly tolerant teachers. In these classes the only apparent association between the self-concept and this mode of teaching at a significant level is in children of Asian origin (Appendix 37.34). In the highly intolerant teacher's class children of European and of Asian origins gain time at the expense of children of West Indian origin (Appendix 36.25). It is no surprise, therefore, to find highly tolerant teachers giving a more favourable allocation of time for initiation to black children than to white in contrast to the additional time given to white children by highly intolerant teachers at the expense of black children (Appendix 36.26).

In those classes taught by highly tolerant teachers there is a remarkably even balance in the time given to boys and to girls for their initiatives which appear to be significantly associated with their self-concepts. A similar association is revealed (Appendix 37.36) in boys and girls in those classes taught by teachers who are highly intolerant where there is a tendency to give additional time for initiatives to boys at the expense of girls (Appendix 36.27).

The tendency for highly tolerant teachers to give more time to children's initiatives provides further evidence to support the earlier suggestion that these teachers are less dominant in the multi-ethnic classroom developing a much more personal approach to teaching, emphasizing the place of the individual in the process, than those

teachers who are ethnically highly intolerant. The general pattern of the distribution of individual teaching time observed in other categories of interaction in which extra time is given to black children by highly tolerant teachers and to white children by highly intolerant teachers is repeated in respect of time allocated to children's initiatives. The imbalances revealed in those classes taught by highly intolerant teachers may, it is anticipated, have some serious implications for the education of girls of West Indian descent.

Periods of silence during teaching sequences (C10):

The silence which is recorded in these observations is that which occurred during teaching sequences and which could genuinely be considered to be an integral part of the teaching and learning process. The periods of silence in this category include, for example, the time allowed for children to express themselves as they hesitate in their responses, the pauses used by some teachers when engaged in the direct teaching mode and the time spent waiting for children to respond to directions or requests. The criterion that was used was that teacher and child, or children, should be interacting with an expectancy of oral interchange recommencing which is akin to Flanders' "productive silence".

The teacher who accepts, and even encourages, periods of silence and is prepared to wait for children whilst they consider their responses with some deliberation is likely to have a relaxed atmosphere in the classroom with children feeling able to reflect without being constantly under external pressure. Insistence from the teacher for immediate responses, or consistent intensive direct teaching which allows

no time for assimilation, can lead to a tension in the classroom which not only hinders learning but which also generates a high level of inhibitory anxiety. The anxiety of the teacher manifested in the intensity of his teaching becomes the anxiety of the child manifested in his behaviour and internalized in his self-concept.

What then is the situation in the multi-ethnic classroom?

We find that highly tolerant teachers allow almost twelve percent of all their teaching time for silence compared with nearly nine percent given by highly intolerant teachers. This very slight tendency for more silence in the class of the highly tolerant teacher may suggest that they encourage a more relaxed atmosphere than their more ethnocentric colleagues, an observation supported by the greater proportion of class teaching time (as distinct from that time spent teaching individuals) given to silent periods by highly tolerant teachers (HTT 21.84%; HIT 12.65%).

What is of paramount importance to the child in the multi-ethnic class and to his self-concept however, is the way in which teachers use silence with each ethnic group when they are teaching individual children. Of the time given to silence highly tolerant teachers spend just over thirty-six percent of it when working with individual children giving most of it to boys and girls of Asian origin and boys of West Indian origin. Boys of European origin lose 11.11% of their fair share of silence and the girls of the same ethnic group lose 7.77% which may indicate that there is a greater pressure upon these two groups by the more tolerant teachers. Girls of West Indian descent in classes of these highly tolerant teachers receive a very balanced allocation of time for silence. Moving into a class taught by a highly intolerant teacher we would find that of the time given by them to silence a greater

proportion was being used with individual children than was the case with highly tolerant teachers (HTT 37.27%; HIT 43.78%). These teachers who are highly ethnocentric give to boys of European and of Asian origins far more than their fair share of the time allocated to silence with the Europeans getting over twice as much extra time (+8.74%) than the Asians (+4.01%) at the expense of girls of European descent and of boys and girls of West Indian origin (Table 24).

The pattern of distribution becomes more distinct, and familiar, when the data is analysed in respect of ethnic groups only. Again we discover that children of Asian origin gain additional time in whichever class they may find themselves as both highly tolerant and highly intolerant teachers give them more time in silence than their numbers justify. Other children who also gain are those of West Indian origin in the highly tolerant teacher's class and children of European origin in the class of the highly intolerant teacher. Children of European descent (-18.9%) appear to be put under pressure, or relatively ignored, by highly tolerant teachers with the same fate befalling those children of West Indian descent (-6.2%) taught by highly intolerant teachers (Appendix 36.28). There is a slight suggestion that the self-concept of children of European origin may be associated with the use of silence by highly tolerant teachers (Appendix 37.38).

Black children gain time for silence very substantially in classes taught by highly tolerant teachers but in those classes taught by highly intolerant teachers the colour factor makes only marginal and insignificant difference in favour of white children (Appendix 36.29) and does not seem to be influential in the association of the self-concept and the use of silence by either group of teachers (Appendix 37.39). The

TABLE 24:

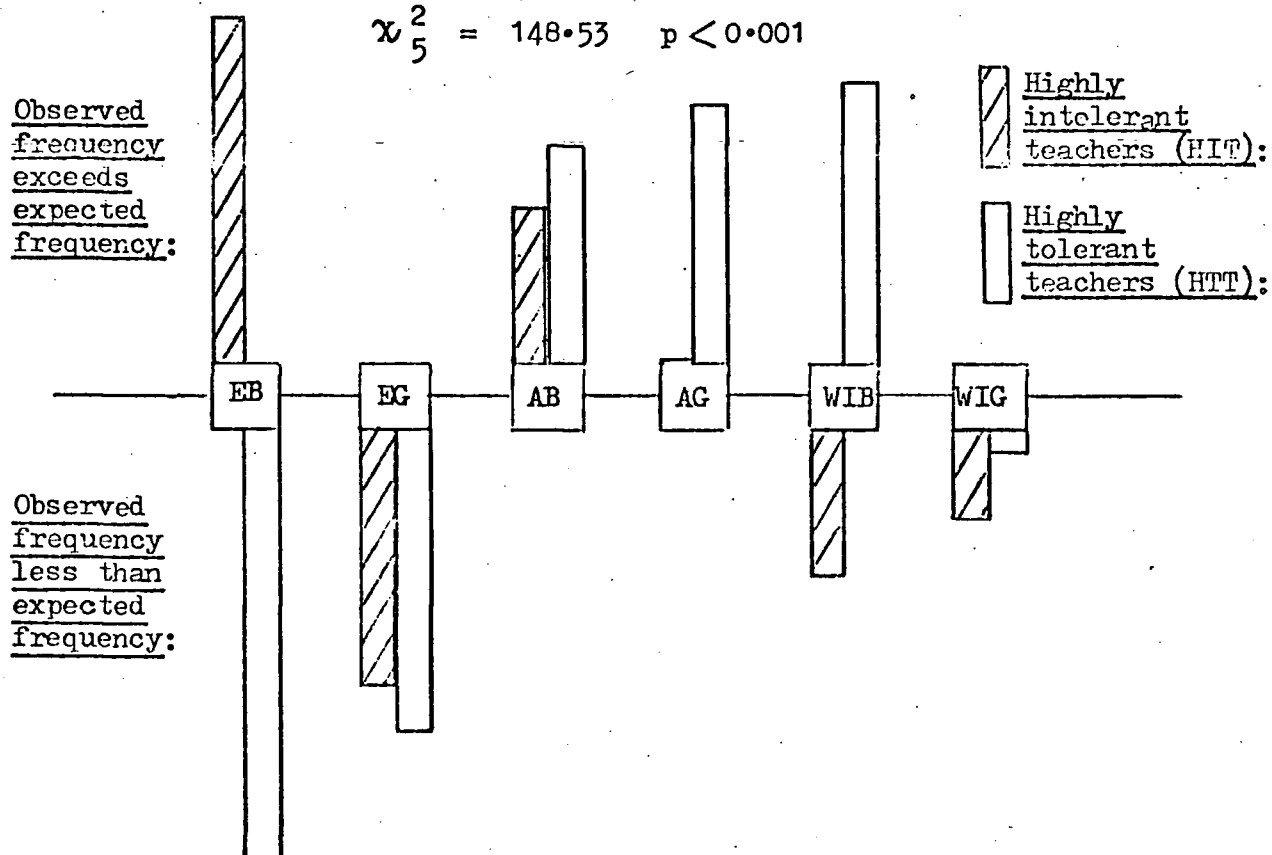
Distribution of individual teaching time given to periods of silence (category 10) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C10HTT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	485	407	310	395	415	239	2251
$f_e$	735	582	185	245	252	252	2251
$(f_o - f_e)$	-250	-175	+125	+150	+163	-13	
% of total	-11.11	-7.77	+5.55	+6.66	+7.24	-0.57	

$$\chi^2_5 = 420.05 \quad p < 0.001$$

C10HIT	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTALS
$f_o$	694	303	316	239	193	199	1944
$f_e$	524	432	238	238	268	244	1944
$(f_o - f_e)$	+170	-129	+78	+1	-75	-45	
% of total	+8.74	-6.63	+4.01	+0.05	-3.86	-2.31	

$$\chi^2_5 = 148.53 \quad p < 0.001$$



very slight tendency highly tolerant teachers have to favour boys is also of no real significance but highly intolerant teachers give almost nine percent extra time for silence to boys (Appendix 36.30) and this is positively correlated, at a significant level, with the boys' self-concept (Appendix 37.40).

Where this analysis has focused upon the distribution of the time given to silence in the course of teaching individual children that silence allows time for thinking and reflection and, presumably, a more carefully considered response from the children. Where a teacher is prepared to accept a slowness of response there is, in most cases, a lowering of the tension which is evident in some sequences of interaction with some children. To maintain silence during interaction requires a measure of confidence in both the teacher and the child. Highly tolerant teachers appear to exercise that confidence more readily with black rather than with white children and more frequently than highly intolerant teachers who tend to find a greater confidence in silence when teaching boys whose self-concept appears to be fairly strongly associated with the silence which occurs during sequences of interaction in which they are involved. The obverse should not be overlooked: black pupils seem to exercise their confidence more extensively with highly tolerant than with highly intolerant teachers. The tentative conclusion may be drawn that the benefits of periods of silence during teaching and response sequences, not being distributed equitably amongst boys and girls of different ethnic origins, accrue disproportionately to different groups of children probably in relation to their teacher's level of ethnocentrism and resulting in a concealed educational inequality and a camouflaged partiality which may be influential in the process of developing the self-concept.

\*\*\*\*\*:\*\*\*\*\*:\*\*\*\*\*

Having identified the emphases given by highly tolerant and highly intolerant teachers in their use and control of separate modes of teaching and revealed where their use appears to be associated with the level of the children's self-concept (Appendix 38) attention is now focused on the total pattern of individual teaching received by boys and girls of European, Asian and West Indian origins. Children in the multi-ethnic classroom are, like children in other more conventional classrooms, subjected to an amalgam of teaching modes and this investigation into the work of highly tolerant and highly intolerant teachers now analyses their composite profiles and their use during the individual teaching received by boys and girls of each ethnic group and examines any possible association there may be with the level of the children's self-concept.

Boys of European origin:

The teaching profile of highly tolerant teachers working with individual boys of European origin, giving the most frequent category first, is:

(+) 7 / 5 - 9 - 3 - 6 - 8 - 4 - 10 - 2 - 1 (-)

which shows, within the limited time given to these boys, an emphasis on direct teaching supported by the opportunity for them to initiate their contributions to the interaction which find acceptance and are used by the highly tolerant teacher within a structure of criticism and direction where praise and encouragement find little place. A very distinctive feature is the additional time given to the negative criticism of the boys' work and behaviour coupled with frequent statements of

self-reference (category 7) in support of the highly tolerant teacher's authority. This particular mode of teaching is also used excessively by these teachers with boys of Asian and of West Indian origins both groups receiving more criticism than boys of European origin (EB +1.0%; AB +2.1%; WIB +11.1%). In the case of boys of Asian and of West Indian origins there may be some alleviation of any negative effects of excessive criticism by the additional use which is made of praise and encouragement (category 2) which is used only very rarely by highly tolerant teachers working with boys of European origin but fairly extensively with boys of Asian and of West Indian origins (EB -14.4%; AB +7.8%; WIB +6.9%). The overall picture is one of tight control by highly tolerant teachers who, nevertheless, allow some freedom for the boys to initiate their own ideas but only within a severely restricted allocation of time.

The teaching of boys of European origin by highly tolerant teachers presents a vivid contrast to that of highly intolerant teachers (Table 25). These two groups of teachers are in accord only when they are criticizing these boys, which is done excessively, and when they are giving them directions, which is done less than would be expected. With the one exception of the additional time spent in criticism and in justifying their own authority teachers who are highly tolerant give less time than would be expected to every mode of teaching used with these boys who must feel relatively ignored in multi-ethnic classes taught by highly tolerant teachers. The situation is somewhat different when controlled by highly intolerant teachers because, apart from the diminished time spent in giving directions, they allocate to every other mode of teaching used with boys of European origin more time than their numbers would warrant in an equitable distribution between ethnic groups.

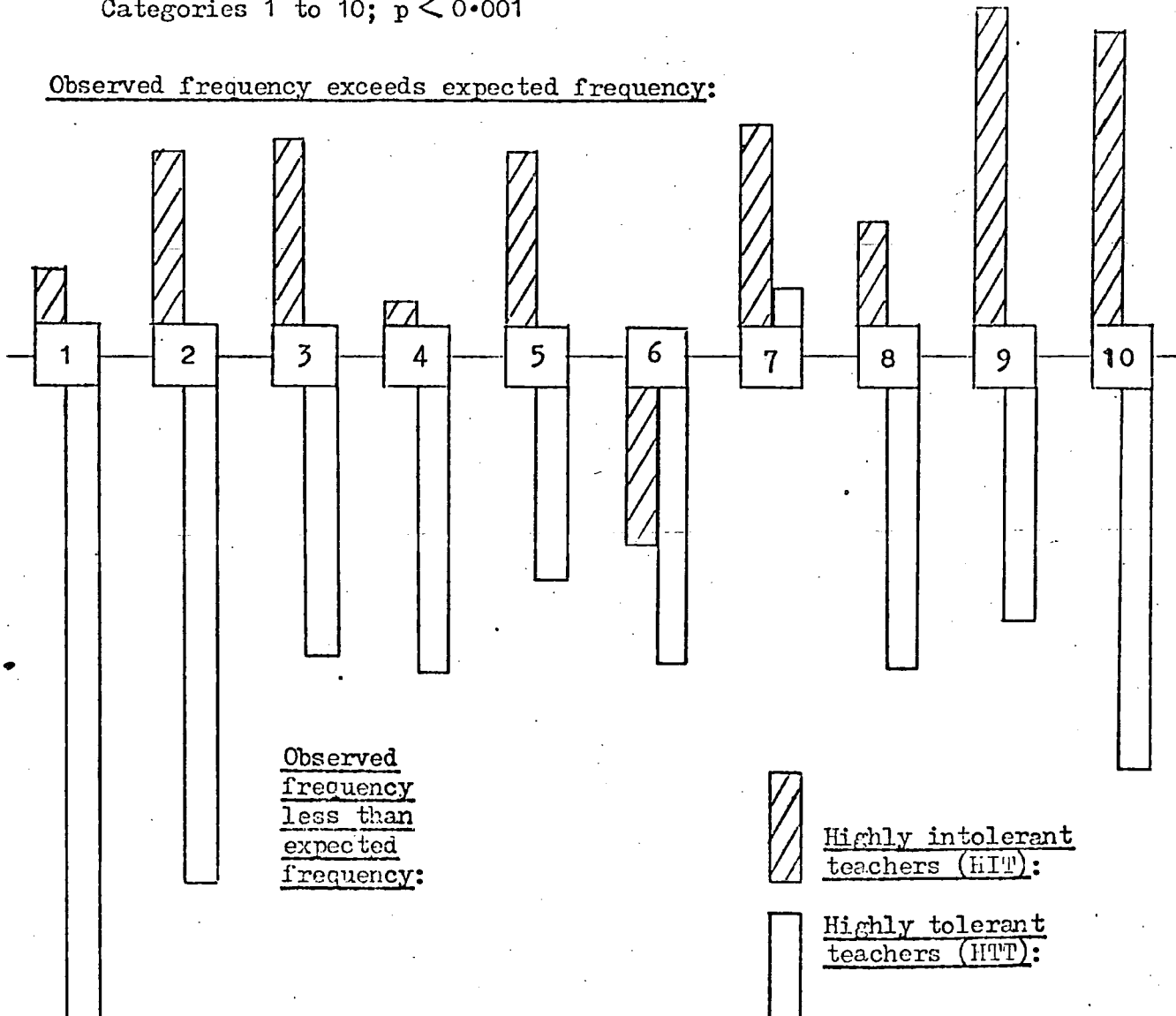
**TABLE 25:**

Distribution of classroom interaction used in the individual teaching of boys of European origin by highly tolerant and highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HIT	$f_o$	13	265	507	1126	2433	736	742	1631	1003	485	8941
	$f_e$	41	475	667	1511	2938	972	720	2181	1268	735	11508
	$f_o - f_e$	-28	-210	-160	-385	-505	-236	+22	-550	-265	-250	-2567
	% cat.	-22.4	-14.4	-7.8	-8.3	-5.6	-7.9	+1.0	-8.2	-6.8	-11.1	-7.3
HIT	$f_o$	17	154	413	1350	1836	799	557	2312	826	694	8958
	$f_e$	16	130	343	1317	1555	957	459	2074	614	524	7989
	$f_o - f_e$	+1	+24	+70	+33	+281	-158	+98	+238	+212	+170	+969
	% cat.	+1.6	+5.0	+5.5	+0.7	+4.9	-4.5	+5.8	+3.1	+9.3	+8.7	+3.3
$\chi^2_1 =$		19.2	97.3	52.7	98.9	137.6	83.4	21.6	166.0	128.6	140.2	690.1

Categories 1 to 10;  $p < 0.001$

Observed frequency exceeds expected frequency:



These disparities produce a very low correlation between the emphases given to the ten modes of teaching by highly tolerant and highly intolerant teachers (Appendix 41).

The boy of European origin in a multi-ethnic class taught by a highly intolerant teacher is clearly going to receive a different balance of teaching resulting from the following profile:

(+) 9 - 10 - 7 - 3 - 2 - 5 - 8 - 1 - 4 / 6 (-)

This indicates a positive approach which gives additional time to the boy to initiate his own ideas and which provides substantial extra time for silence during periods of interaction suggesting a fairly relaxed atmosphere with boys of European origin. The boys' initiatives find ready acceptance and are reinforced by praise and encouragement but they are not, however, isolated from some criticism which is used by highly intolerant teachers fairly extensively. The positive approach to the individual teaching of boys of European origin by highly intolerant teachers is further illustrated by the prominent lack of directives which, in the rank order of usage, is the least utilized mode of teaching (Table 25 and Appendix 41).

The low positive correlation of the precedence given to the various categories of interaction by highly tolerant and highly intolerant teachers suggests some divergence in the approach of these teachers to their work when they are engaged in the individual teaching of boys of European origin. Why such emphases are used by these teachers with boys of European origin is a matter, in the absence of any sound empirical evidence, for future research and present speculation. From our

fieldwork observations, for example, it is not unreasonable to suggest that highly intolerant teachers tend to conduct a fairly ordered classroom in which most children, except those of West Indian origin, appear to have an understanding of the established working routine and follow a pattern of behaviour acceptable to the highly intolerant teacher. When children have a clear understanding of simple routine practices in the classroom then they are not so likely to attract as many directives as those who find difficulty in accepting the purposes and the constraints of such arrangements or those who are given the freedom in which to err. It is also possible that the excessive overall attention that we noted earlier which is given to boys of European origin by highly intolerant teachers provides a sense of classroom superiority so they come to look upon themselves as a rather special and select group with a close identity with the teacher which would tend to generate positive support for the classroom regime. Such an affinity is likely to reduce the need for the highly intolerant teacher to give directives designed to control children's behaviour.

The more black-child-centred and generally less formal atmosphere of the highly tolerant teacher's classroom may, somewhat paradoxically, result in an authoritarian stance being adopted towards boys of European origin (and, to a lesser extent, towards girls of the same ethnic group). The excessive time which these teachers give to individual children of other ethnic groups means that children of European origin are relatively ignored which, when perceived by them, may quickly lead to a resentment which is likely to stimulate attention seeking behaviour from the children and critical comment from the teacher. This heavy concentration by highly tolerant teachers on work with children of Asian and West Indian origin, especially when much of that work is

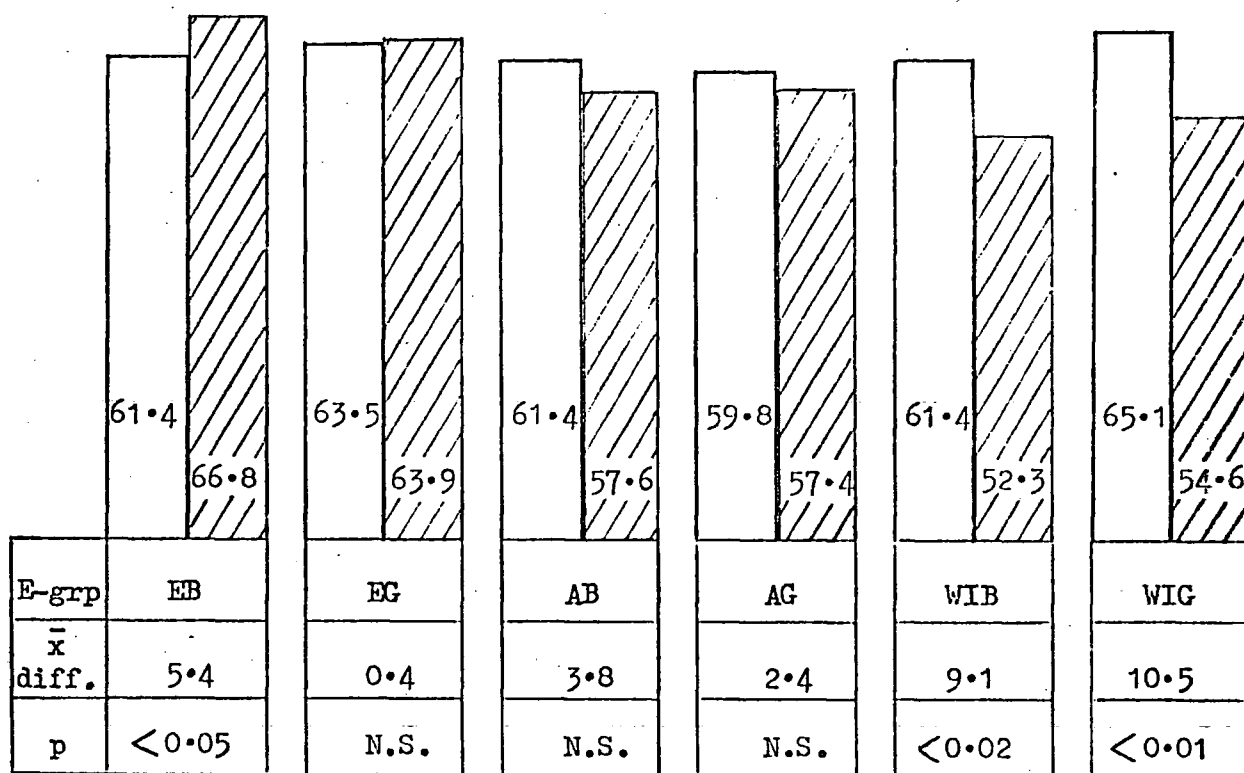
carried out individually, may tend to influence the white child's perception of himself as being of less importance in the multi-ethnic classroom with a consequent deflation of the self-concept.

Our evidence indicates that these are reasonable propositions since boys of European origin taught by highly tolerant teachers have a significantly ( $p < 0.05$ ) lower level of self-concept than boys of the same ethnic group taught by highly intolerant teachers (Table 26 and Appendix 42). Furthermore, within those classes taught by highly intolerant teachers boys of European origin have a level of self-concept which is very significantly higher ( $p < 0.001$ ) than those of boys and girls of Asian and of West Indian origins but which is not significantly different from that of girls of European origin (Table 27 and Appendix 43). However, within those classes taught by highly tolerant teachers there are no statistically significant differences between the self-concept levels of boys and girls of any of the three ethnic groups (Table 27 and Appendix 44).

To summarize: boys of European origin are given more attention than their numbers warrant by highly intolerant teachers who use the more positive modes of teaching most frequently with these boys who, when taught by highly intolerant teachers, record a level of self-concept which is higher than that of boys and girls of Asian and of West Indian origins taught by the same teachers. Those boys of European origin taught by highly tolerant teachers receive substantially less attention than their numbers would justify and they have a lower self-concept than their contemporaries taught by teachers who are highly intolerant although there is no difference between their level of self-concept and that of girls of European origin and those of boys and girls in the other ethnic groups

TABLE 26:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by highly tolerant and highly intolerant teachers:



Highly tolerant teachers:



Highly intolerant teachers:



(Based on data contained in Appendix 42).

taught by highly tolerant teachers.

Girls of European origin:

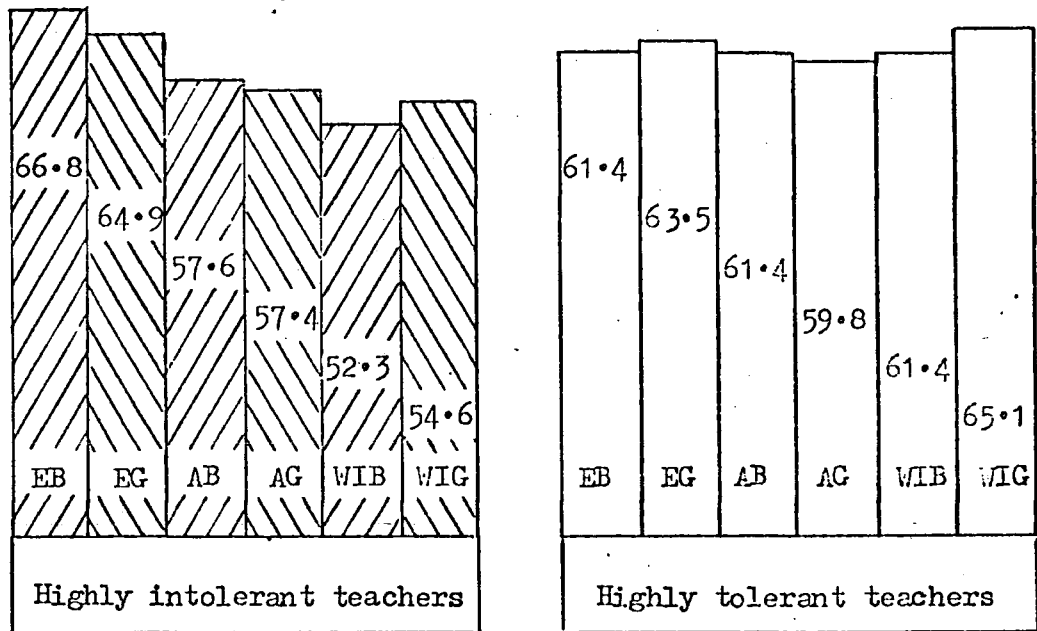
Girls of European origin receive from highly tolerant teachers less individual teaching time than their numbers would justify in respect of every mode of teaching except that which is used to respond to the girls' feelings and attitudes (Table 28 and Appendix 45). The highly tolerant teacher's use of the different modes of teaching with these girls in rank order is:

(+) 1 / 5 - 7 - 9 - 3 - 8 - 6 - 2 - 10 - 4 (-)

which, after the greater than expected attention given to the feelings of these girls, indicates the highly tolerant teachers' emphasis on direct teaching using this didactic mode more often than others supporting their work with a fairly heavy reliance upon criticism. At the other end of the rank order of preference is their less than expected use of questions which, not surprisingly, brings in its train a minimal allocation of time for the girls' responses. The less than expected time given to periods of silence suggests that these girls may be under some pressure when responding to teachers' initiatives but, although there is some evidence to support this explanation, detailed inspection of the record of observations indicates that there is also a lack of silence during sequences of the highly tolerant teacher's direct teaching. It appears, therefore, that the minimal amount of silence is more likely to be indicative of an intensive and concentrated form of direct teaching with girls of European origin. In addition highly tolerant teachers,

TABLE 27:

Mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by highly tolerant and highly intolerant teachers:



(Based on the data contained in Appendices 43 and 44).

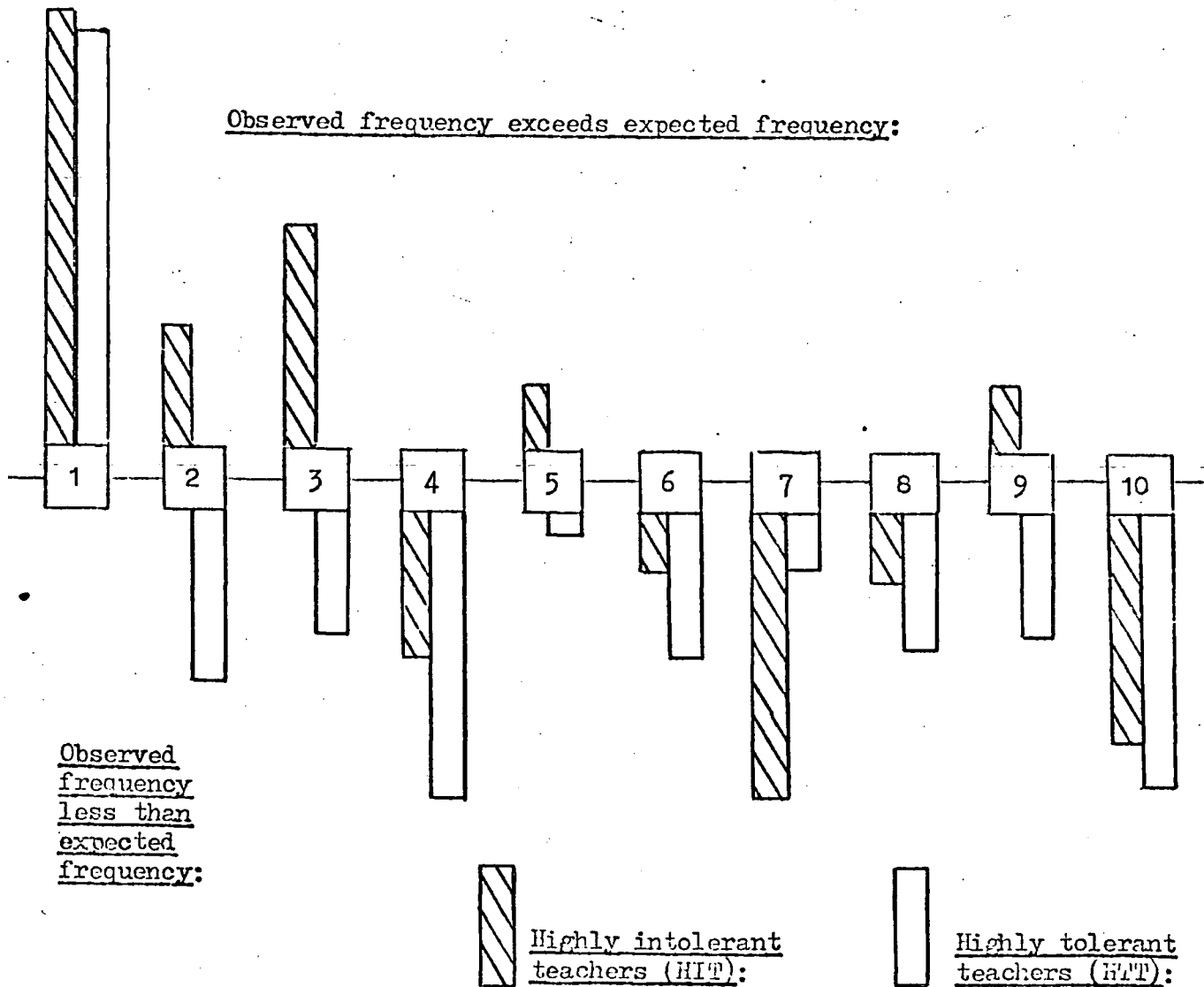
when working with girls of European origin, also give them less praise and encouragement which, coupled with a prominent use of criticism, results in a very restrictive style of teaching. Girls of European origin when taught by teachers who are highly tolerant are not likely to be slow in perceiving that, compared with children in other ethnic groups but like boys of their own ethnic group, they are relatively disregarded. When they do receive the teacher's attention they will find themselves subjected, again like boys of European origin taught by teachers who are highly tolerant, mainly to criticism and a teaching style which emphasizes direct

TABLE 28:

Distribution of classroom interaction used in the individual teaching of girls of European origin by highly tolerant & highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HIT	$f_o$	47	303	454	815	2280	642	533	1466	866	407	7813
	$f_e$	32	376	529	1198	2330	771	570	1729	1006	582	9123
	$f_o - f_e$	+15	-73	-75	-383	-50	-129	-37	-263	-140	-175	-1310
	% cat.	+12.0	-5.0	-3.7	-8.3	-0.6	-4.3	-1.7	-3.9	-3.6	-7.8	-3.7
HIT	$f_o$	22	124	364	877	1394	733	240	1552	551	303	6160
	$f_e$	14	107	282	1087	1284	790	379	1713	507	432	6595
	$f_o - f_e$	+8	+17	+82	-210	+110	-57	-139	-161	+44	-129	-435
	% cat.	+12.7	+3.5	+6.5	-4.3	+1.9	-1.6	-8.2	-2.1	+1.9	-6.6	-1.5
$\chi^2_1 =$		11.6	16.9	34.5	163.0	10.5	25.7	53.4	55.1	23.3	91.1	216.8

Categories 1 to 4 & 6 to 10;  $p < 0.001$ ; category 5;  $p < 0.01$



teaching. This lack of any really positive attributes in the teaching they receive in the multi-ethnic classroom may possibly promote a negative appraisal of themselves as learners which may, in turn, tend to inhibit their learning. It seems reasonable to suggest that the preoccupation highly tolerant teachers have with the teaching of children of Asian and West Indian origins so inhibits their work with children of European origin that their adopted teaching style for work with these children is one which occupies not only a minimum of time but also a minimum of effort and, in the process, may provide little more than a pseudo-educational activity.

Less parsimonious in their use of some modes of teaching with girls of European origin highly intolerant teachers allocate to them slightly more than their fair share of time in respect of direct teaching, the opportunity to express their own ideas and opinions and the use of these contributions to classroom interaction. The girls' efforts are given more than expected praise and encouragement and the most conspicuous excess of time is given to the acceptance of their feelings and responding to them. The highly intolerant teacher's use of the different modes of teaching in order of precedence is:

(+) 1 - 3 - 2 - 5 = - 9 = / 6 - 8 - 4 - 10 - 7 (-)

which produces a teaching profile rather different from that used with these girls by highly tolerant teachers. Highly intolerant teachers tend to use a more expansive and positive style emphasizing the use of the girls' contributions and supporting their ideas and opinions with substantial praise and encouragement. The positive nature of their approach to the teaching of these girls is further emphasized by the very

infrequent use of criticism. Like their more ethnically tolerant colleagues these teachers appear to use an intensive teaching style with these girls making little use of, or allowing little scope for, silence. They also demonstrate their concern about factual content when teaching girls of European origin by giving direct teaching a prominent place in their work. With less of their attention occupied with children of Asian and West Indian origins highly intolerant teachers seem to provide girls of European origin with an educational environment which uses some of the more positive modes of teaching in excess of what would normally be expected and which might be associated with the positive image they have of themselves as learners when compared with children of Asian and of West Indian origins taught by highly intolerant teachers (Appendix 43).

Within those classes in the sample taught by highly intolerant teachers girls of European origin record a significantly higher level of self-concept than boys and girls of Asian and of West Indian origins but there is no significant difference with the self-concept level of boys of European origin (Appendix 43). In the classes taught by highly tolerant teachers there are no significant differences between the self-concept level of girls of European origin and other children in the classes (Appendix 44) and there is no significant difference between the level of the self-concept of girls of European origin whether they are taught by highly tolerant or highly intolerant teachers (Appendix 42).

Girls of European origin, denied their full share of individual teaching by both highly tolerant and highly intolerant teachers (Appendix 45), are treated most favourably by highly intolerant teachers who tend to teach these girls more positively supporting their efforts with praise and encouraging them by using their ideas and opinions. Highly intolerant

teachers apparently use a very mild level of criticism with girls of European origin and this appears to be positively and significantly correlated to their level of self-concept (Appendix 38) which, coupled with an association between direct teaching and the level of self-concept of these girls, may be an influential factor in the positive self-concept revealed in girls of European origin taught by highly intolerant teachers. Girls of this ethnic group taught by highly tolerant teachers seem to be comparatively disregarded in the multi-ethnic classroom but this appears to make little difference to their level of self-concept. The disparities between the styles of teaching used with these girls by highly tolerant and highly intolerant teachers are reflected in the low correlation between the order of precedence given to the modes of teaching by each group of teachers (Appendix 41).

Boys of Asian origin:

When they are teaching boys of Asian origin highly tolerant teachers use all modes of teaching in excess of what would normally be expected and their less tolerant colleagues give additional time to all but four categories, the acceptance of the boys' feelings, direct teaching, criticism and praise. (Table 29). Both groups of teachers give substantial additional time to the questions they direct to these boys and for their responses to them allowing extra time for periods of silence during the response sequences. Additional time is also given by both groups of teachers to the pupils' initiatives and to their use in subsequent interaction. The extra time given to teaching boys of Asian origin also involves a more than expected use of directives by both highly tolerant and highly intolerant teachers. However, within these

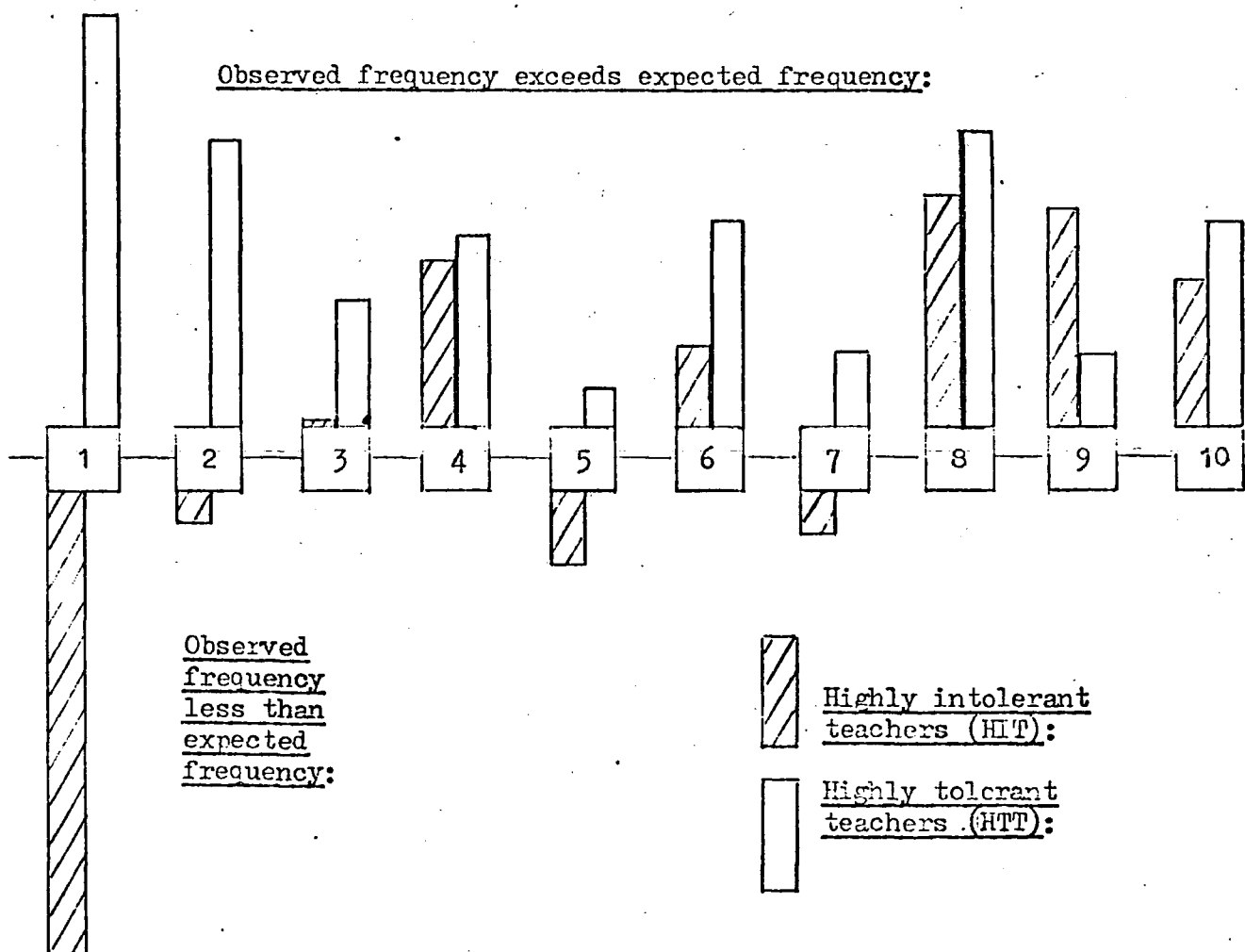
TABLE 29:

Distribution of classroom interaction used in the individual teaching of boys of Asian origin by highly tolerant and highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HTT	$f_o$	24	234	238	622	837	413	228	1082	392	310	4380
	$f_e$	10	120	168	381	742	245	182	551	320	185	2904
	$f_o - f_e$	+14	+114	+70	+241	+95	+168	+46	+531	+72	+125	+1476
	% cat.	+11.2	+7.8	+3.4	+5.2	+1.1	+5.6	+2.1	+8.0	+1.9	+5.6	+4.2
HIT	$f_o$	0	55	157	825	583	513	189	1412	416	316	4466
	$f_e$	8	59	155	598	706	434	209	941	279	238	3627
	$f_o - f_e$	-8	-4	+2	+227	-123	+79	-20	+471	+137	+78	+839
	% cat.	-12.7	-0.8	+0.2	+4.6	-2.1	+2.2	-1.2	+6.1	+6.0	+4.0	+2.8
$\chi^2_1 =$		27.6	108.6	29.2	238.6	33.6	129.6	13.5	747.5	83.5	110.0	944.3

Categories 1 to 10;  $p < 0.001$

Observed frequency exceeds expected frequency:



broad similarities there are some important differences of emphasis which account for the very low correlation between the order of precedence given to different modes of teaching by both sets of teachers when working with boys of Asian origin (Appendix 41).

The most distinctive feature of the highly tolerant teacher's work with these boys is the greater than expected allocation of time which is given to every mode of teaching in the following order:

(+) 1 - 8 - 2 - 6 = - 10 = - 4 - 3 - 7 - 9 - 5 / (-)

but which, unlike work with children in other ethnic groups (Table 30), gives least emphasis to direct teaching. Highly tolerant teachers appear to accept the feelings of boys of Asian origin more readily than their highly intolerant counterparts giving substantial additional time over and above what would be expected in an equitable distribution. Second to this mode is the extra time given to boys of Asian origin for their responses to the highly tolerant teacher's questions. These responses not only receive the support of considerable praise and encouragement, which is the mode third most frequently used by these teachers, but also the benefit of additional time in the form of silent periods. The teaching profile of highly tolerant teachers working with boys of Asian origin is one which suggests a relaxed and pupil-orientated approach although somewhat surprisingly the pupils' initiatives, whilst attracting excess time, nevertheless command only low priority.

The position concerning the boys' initiatives is reversed when they are taught by teachers who are highly intolerant as they give the

TABLE 30:

Rank order use of interaction categories with individual boys and girls of European, Asian and West Indian origins taught by highly tolerant (HTT) and highly intolerant (HIT) teachers:

		INTERACTION CATEGORIES					
RANK		EB	EG	AB	AG	WIB	WIG
HIGHLY TOLERANT TEACHERS	1	7	1	1	10	7	1
	2	5	5	8	3	6	9
	3	9	7	2	2	4	4
	4	3	9	6=	8	10	3
	5	6	3	10=	9	2	5
	6	8	8	4	4	5	2
	7	4	6	3	6	9	10
	8	10	2	7	5	8	8
	9	2	10	9	7	3	6
	10	1	4	5	1	1	7
HIGHLY INTOLERANT TEACHERS	1	9	1	8	1	7	6
	2	10	3	9	2	6	7
	3	7	2	4	4	4	3
	4	3	5=	10	5	5	8
	5	2	9=	6	10	2	10
	6	5	6	3	3	8	5
	7	8	8	2	7	10	4
	8	1	4	7	8	3	2
	9	4	10	5	9	9	9
	10	6	7	1	6	1	1

Figures above lines indicate observed frequency greater than expected frequency.

boys' initiatives a greater amount of time and a much higher priority. This emphasis is not, as might be anticipated, at the expense of the time given to the boys' responses to teachers' questions as this mode commands the top place in the order of precedence which is:

(+) 8 - 9 - 4 - 10 - 6 - 3 / 2 - 7 - 5 - 1 (-)

and results in a teaching profile considerably different to that of more ethnically tolerant teachers (Appendix 41). Despite their ethnocentrism highly intolerant teachers give considerable excess time to the contributions made by boys of Asian origin. They not only give the highest priority to these two forms of pupil-talk (C8,C9) but there is a suggestion that support also comes from time allowed for silence (C10). The greater than expected emphasis on silence during interaction occurs predominantly during those sequences involving the boys' responses or initiatives. At the other end of the order of precedence it is interesting to observe that in their work with boys of Asian origin highly intolerant teachers, like their more ethnically tolerant colleagues, also give direct teaching (C5) very little emphasis allocating this mode less time than would be expected and using it ninth in rank order of priority.

The correlation of the rank order of priority given to the different modes of teaching by highly tolerant and highly intolerant teachers when working with boys of Asian origin is greatly affected by the strongly contrasting emphasis given to the acceptance of the boys' feelings and the time given to the boys' initiatives. If these two categories could be set aside we would find that the priority given to the remaining modes by highly tolerant and highly intolerant teachers is remarkably similar ( $\rho = 0.6845$ ;  $p < 0.05$ ). Given these two

exceptions the similarity of the emphases given to the different modes of teaching by both sets of teachers may not be totally disassociated with the similar levels of self-concept recorded by those boys of Asian origin taught by highly tolerant teachers and those taught by highly intolerant teachers (Appendix 42 and Table 26). Although there is no significant difference between the level of self-concept of boys of Asian origin taught by highly tolerant and those taught by highly intolerant teachers, within the separate classes, where differences of emphasis may be readily perceived, boys of Asian origin taught by highly intolerant teachers record a level of self-concept which is significantly lower than that of boys of European origin ( $p < 0.001$ ) and also lower than that of girls of European origin ( $p < 0.01$ ). No differences in the level of self-concept are evident between boys and girls of different ethnic groups in those classes taught by highly tolerant teachers (Appendix 44).

Boys of Asian origin seem to receive more than their fair share of attention from both highly tolerant and highly intolerant teachers with both groups of teachers giving prominence to the boys' talking. Highly intolerant teachers give special attention to this aspect allocating far more time to the boys' initiatives than highly tolerant teachers. This emphasis highly intolerant teachers give to the boys' contributions to classroom interaction may, if they have difficulty in expressing themselves, be associated with their low self-concept score which in classes taught by highly intolerant teachers, is very significantly lower than those of boys and girls of European origin.

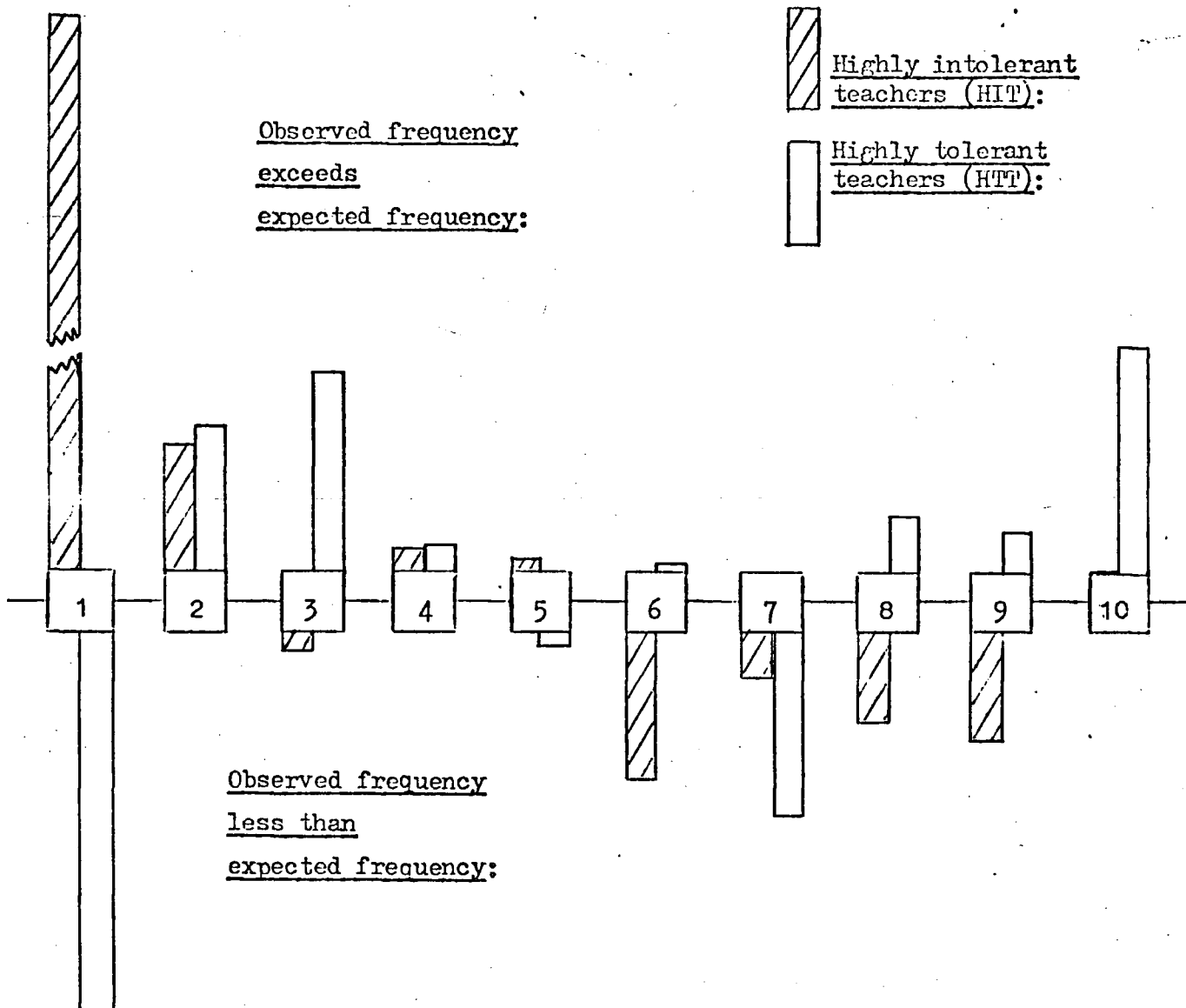
Girls of Asian origin:

Inspection of Table 31 will show that girls of Asian origin.

TABLE 31:

Distribution of classroom interaction used in the individual teaching of girls of Asian origin by highly tolerant and highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HIT	$f_o$	0	220	338	539	934	332	121	833	470	395	4182
	$f_e$	14	158	222	504	980	324	240	727	423	245	3837
	$f_o - f_e$	-14	+62	+116	+35	-46	+8	-119	+106	+47	+150	+345
	% cat.	-11.2	+4.3	+5.9	+0.8	-0.5	+0.3	-5.4	+1.6	+1.2	+6.7	+1.0
HTT	$f_o$	24	77	149	631	728	283	186	737	206	239	3260
	$f_e$	8	59	155	598	706	434	209	941	279	238	3627
	$f_o - f_e$	+16	+18	-6	+33	+22	-151	-23	-204	-73	+1	-367
	% cat.	+25.4	+3.7	-0.5	+0.7	+0.4	-4.3	-1.4	-2.7	-3.2	+0.1	-1.2
$\chi^2 =$		46.0	29.8	60.8	4.3	2.8	52.7	61.5	59.7	24.3	91.8	68.2
$p <$		0.001	0.001	0.001	0.05	N.S.	0.001	0.001	0.001	0.001	0.001	0.001



receive from teachers who are highly tolerant a relatively even allocation of time in respect of most modes of teaching. Although the differences are, in most cases, quite small the tendency is for highly tolerant teachers to err on the side of giving excess time to these pupils with only direct teaching, criticism and the acceptance of pupils' feelings in deficit in their teaching profile:

(+) 10 - 3 - 2 - 8 - 9 - 4 - 6 / 5 - 7 - 1 (-)

The emphasis on silence (C10), the use of the girls' ideas and suggestions (C3) coupled with substantial praise and encouragement (C2) suggests a positive and supportive style of teaching. The tendency for these teachers to give extra time to the girls' talking, both in response (C8) and in initiation (C9), is indicative of a child-orientated approach which finds further support in the minimal time which these teachers give to direct teaching (C5) and criticism (C7). The general impression of this teaching profile is one in which the use of the girls' ideas and the support they receive through praise seems to encourage their active participation in the classroom interaction.

Highly intolerant teachers, whilst also giving additional time and a high priority to praise, tend to emphasize the teacher-centred modes of questioning (C4) and direct teaching (C5) whilst giving less time than would be expected in an equitable distribution, and a very low priority, to the responses (C8) and initiatives (C9) of girls of Asian origin. The order of priority used by highly intolerant teachers with girls of Asian origin is:

(+) 1 - 2 - 4 - 5 - 10 - / 3 - 7 - 8 - 9 - 6 (-)

The outstanding feature in this teaching profile is the high priority which is given to praise and encouragement (C2) in contrast to the low priority given to the girls' talking in response and initiation both of which are the most common activators of the teachers' use of praise. The wide difference between the length of time given to children's talking and the extent of the teacher's praise suggests an abnormally excessive and, perhaps, spurious use of praise with girls of Asian origin when being taught by highly intolerant teachers.

In this research the teaching styles used by highly tolerant and highly intolerant teachers with girls of Asian origin differ in that highly tolerant teachers appear to emphasize the use of child-centred modes (e.g. categories 10; 3; 2; 8; 9) giving only minor precedence to the more teacher-centred activities of asking questions (C4) and direct teaching of a didactic nature (C5) both of which are highly rated by highly intolerant teachers. Furthermore, each of these two extreme tolerance groups of teachers appears to adopt rather different orders of priority in their use of the different modes of teaching with girls of Asian origin and boys of the same ethnic group (Appendix 41).

In those classes taught by highly tolerant teachers there is no statistical significance in the differences recorded between the self-concept levels of any ethnic groups (Appendix 44) but in classes taught by highly intolerant teachers the self-concept of girls of Asian origin is at a significantly lower level than those of boys of European origin ( $p < 0.001$ ) and girls of European origin ( $p < 0.01$ ) (Appendix 43). There is not, however, any significant difference between the self-concept levels of girls of Asian origin taught by highly tolerant teachers and those girls of the same ethnic group taught by highly intolerant teachers

(Appendix 41). We therefore conclude that, as far as the level of the self-concept of girls of Asian origin is concerned, there is no apparent advantage in being taught either by highly tolerant or by highly intolerant teachers but if taught by one of the latter group there is a very strong possibility that the self-concept of these girls would be less positive than that of both boys and girls of European origin.

Boys of West Indian origin:

Highly tolerant teachers give more individual teaching time to boys of West Indian origin than their numbers would justify in respect of every mode of teaching except for the even balance achieved when accepting the boys' feelings (Table 32). The order of precedence given to the ten modes of teaching is:

(+) 7 - 6 - 4 - 10 - 2 - 5 - 9 - 8 - 3 / 1 (o)

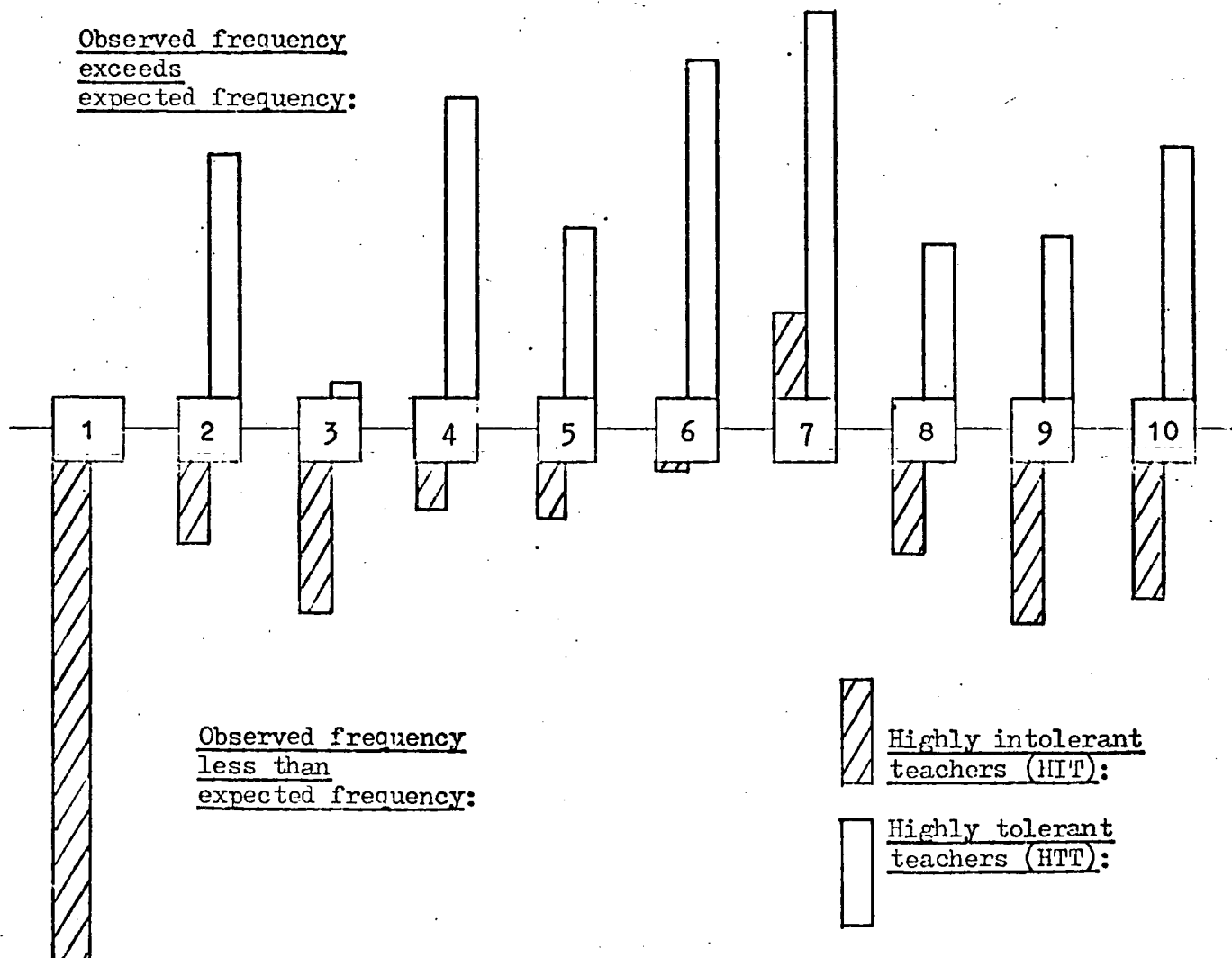
which illustrates the importance that these teachers attach to maintaining their control of the interaction through criticism (C7) and directives (C6) and the prominence they give to their insistence on compliance by boys of West Indian origin. Further teacher control of the interaction is evident in the strong emphasis given to asking questions (C4) of these boys which is a form of control accentuated by the low priority given to the responses (C8) evoked by the questions. The '9 - 8 - 3' pattern at the lower end of the order of precedence is a classic example of the teacher's very limited use of the children's contributions (C3) inhibiting further contributions in the form of responses (C8) and initiation (C9). The combination of the high priority given by highly tolerant teachers to

TABLE 32:

Distribution of classroom interaction used in the individual teaching of boys of West Indian origin by highly tolerant & highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HTT	$f_o$	14	264	239	911	1438	621	490	1043	618	415	6053
	$f_e$	14	163	229	517	1006	333	246	747	435	252	3942
	$f_o - f_e$	0	+101	+10	+394	+432	+288	+244	+296	+183	+163	+2111
	% cat.	0.0	+6.9	+0.5	+8.5	+4.8	+9.7	+11.1	+4.4	+4.7	+7.2	+6.0
HIT	$f_o$	0	56	119	608	698	481	278	859	209	193	3501
	$f_e$	9	67	175	674	796	490	235	1061	314	268	4089
	$f_o - f_e$	-9	-11	-56	-66	-98	-9	+43	-202	-105	-75	-588
	% cat.	-14.3	-2.3	-4.4	-1.4	-1.7	-0.3	+2.5	-2.6	-4.6	-3.9	-2.0
$\chi^2 =$		9.0	64.4	18.4	306.7	197.6	249.3	249.9	155.8	112.1	126.4	1215.0

Categories 2 to 10;  $p < 0.001$ ; category 1;  $p < 0.01$



categories '7 - 6 - 4' and the low priority given to categories '9 - 8 - 3' is indicative of very tight teacher control dominating the work with boys of West Indian origin. With no other ethnic/sex group do these teachers give the acceptance and use of children's contributions such a low priority (Table 30).

The very high rank order correlation ( $\rho = +0.98$ ;  $p < 0.01$ ) (Appendix 41) indicates that highly intolerant teachers differ only slightly from their more tolerant colleagues in the order of precedence they give to the use of the ten modes of teaching with boys of West Indian origin. The three most prominent modes in the teaching of highly intolerant teachers are, in fact, the same as those used most frequently by highly tolerant teachers but at a much lower level of frequency since the use of every mode, except criticism, is used less by highly intolerant teachers than would be expected in an equitable distribution (Table 32). Their teaching profile with boys of West Indian origin is:

(+) 7 / 6 - 4 - 5 - 2 - 8 - 10 - 3 - 9 - 1 (-)

reflecting the concern highly intolerant teachers have with retaining control of the interaction as already observed in the work of highly tolerant teachers. At the lower end of the order of precedence we again find a low priority being given to the boys' initiatives (C9) and only minimal use being made of their contributions. As with teachers who are highly tolerant the acceptance and use of the children's contributions by highly intolerant teachers is given a lower priority with boys of West Indian origin than with any other ethnic/sex group (Table 30). Although highly intolerant teachers give less attention to boys of West Indian origin than their numbers warrant these teachers

give a higher priority to direct teaching than those who are highly tolerant which may suggest greater concern with the process of imparting information to these boys. They also give a higher priority to the boys' responses to questions (C8) but a lower priority to silence which suggests a less relaxed atmosphere during interaction sequences than would be evident in those involving highly tolerant teachers.

These differences in the patterns of teaching used by highly tolerant and highly intolerant teachers, coupled with the disparity in the amount of time they give to boys of West Indian origin, may be associated with the significantly lower level of self-concept ( $p < 0.02$ ) recorded by these boys when they are taught by teachers who are highly intolerant (Appendix 42 and Table 26). In those classes taught by highly tolerant teachers the level of self-concept of boys of West Indian origin is not significantly different from girls of the same ethnic group or boys and girls of European and of Asian origins (Appendix 44 and Table 27). However a wide difference has been discovered in those classes taught by teachers who are highly intolerant where boys of West Indian origin record a level of self-concept which is significantly lower than that of boys of European origin ( $p < 0.001$ ) and girls of the same ethnic group ( $p < 0.01$ ) (Appendix 43 and Table 27).

Our evidence points to the possibility that some advantages may accrue to the self-concept level of boys of West Indian origin when they are taught by teachers who are ethnically highly tolerant. Not only is the self-concept of these boys likely to be higher than that of their ethnic counterparts taught by less tolerant teachers but it may be on a par with all other children in the same class. Boys of West Indian origin taught by teachers who are highly intolerant are likely to have a

lower self-concept than their fellows taught by a teacher who is ethnically highly tolerant and they may, like other black children, tend to have a lower self-concept than boys and girls of European origin in the same class.

Highly intolerant teachers use a priority of teaching modes with boys of West Indian origin which is similar to that which they use with girls of the same ethnic group ( $\rho = +0.61$ ;  $p < 0.05$ ) whereas those teachers who are highly tolerant tend to adopt a significantly different pattern of priorities with both boys and girls of West Indian origin ( $\rho = -0.65$ ;  $p < 0.05$ ) (Appendix 41). We conclude therefore that the boy of West Indian origin in the class of the highly intolerant teacher is likely to be relatively ignored and on those occasions when he does receive the teacher's attention it will be predominately in the form of criticism and directives with little opportunity provided for making his own verbal contributions to the work of the class. Furthermore, in the class of the highly intolerant teacher, his relatively low self-concept is likely to give him some feeling of inferiority in relation to children of European origin.

#### Girls of West Indian origin:

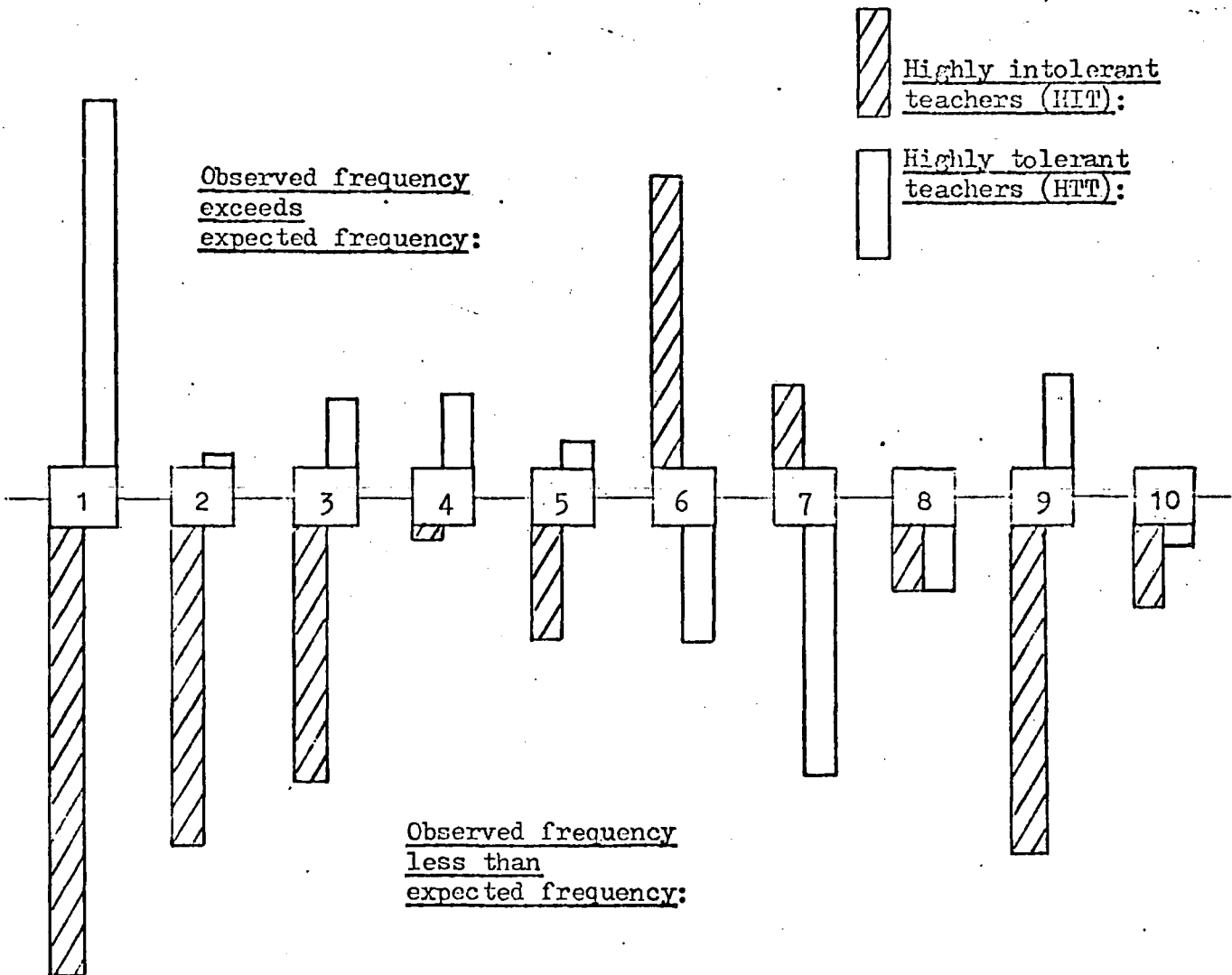
In classes taught by highly tolerant teachers girls of West Indian origin can expect to receive more than their fair share of individual attention during the use of six of the ten categories of interaction identified for this study (Table 33). Less time than would be expected in an equal distribution is spent criticizing them and giving them directives suggesting that these teachers tend to adopt a positive

TABLE 53:

Distribution of classroom interaction used in the individual teaching of girls of West Indian origin by highly tolerant & highly intolerant teachers:

	CAT.	1	2	3	4	5	6	7	8	9	10	Total
HIT	$f_o$	27	169	268	615	1080	234	90	627	538	239	3887
	$f_e$	14	163	229	517	1006	333	246	747	435	252	3942
	$f_o - f_e$	+13	+6	+39	+98	+74	-99	-156	-120	+103	-13	-55
	% cat.	+10.4	+0.4	+1.9	+2.1	+0.8	-3.3	-7.1	-1.8	+2.7	-0.6	-0.2
HTT	$f_o$	0	16	67	596	531	741	255	823	70	199	3298
	$f_e$	8	60	159	613	723	445	214	965	285	244	3716
	$f_o - f_e$	-8	-44	-92	-17	-192	+296	+41	-142	-215	-45	-418
	% cat.	-12.7	-9.1	-7.3	-0.4	-3.3	+8.3	+2.4	-1.9	-9.4	-2.3	-1.4
$\chi^2 =$		20.1	32.5	59.9	19.1	56.4	226.3	106.8	40.2	186.6	9.0	47.8

Categories 1 to 9;  $p < 0.001$ ; category 10;  $p < 0.01$



approach to their work with girls of West Indian origin. The teaching profile of the highly tolerant teachers' work with girls of West Indian origin:

(+) 1 - 9 - 4 - 3 - 5 - 2 / 10 - 8 - 6 - 7 (-)

supports this observation with its emphasis on the acceptance of the girls' feelings (C1) and the additional time they are given for the initiation of their own contributions (C9) to the work of the class. There is also a tendency on the part of the highly tolerant teacher to give additional time to the use of the girls' contributions (C3) accepting them as part of the interaction and integrating them into the work of the class. This approach does not appear to detract from the highly tolerant teachers' use of direct teaching (C5) which is also given excess time and which appears to stimulate the use of questions (C4). It is, however, uncharacteristic of the general tenor of the work with girls of West Indian origin to discover that only minimal time is given by highly tolerant teachers to the girls' responses to the questions (C8). With less time given to this aspect than would be expected, and its eighth position in the order of precedence, the girls' responses occupy a relatively unimportant position in the highly tolerant teachers' work with girls of West Indian origin as also does the provision of silence (C10) which suggests that these girls may experience a mild degree of pressure during interaction particularly that related to their responses to the highly tolerant teachers' questions.

The highly intolerant teacher working with girls of West Indian origin displays a rigid control of the interaction giving considerably more time to directives (C6) than to any other mode of teaching:

(+) 6 - 7 / 3 - 8 - 10 - 5 - 4 - 2 - 9 - 1 (-)

This use of directions and the additional time which is given to criticism (C7) are the only two modes of teaching which highly intolerant teachers employ more frequently than would be expected in an equal distribution amongst boys and girls of the three ethnic groups. This, when contrasted to the very minimal amount of time given to the initiatives of these girls (C9) and the very low priority accorded to their praise and encouragement (C2), suggests that girls of West Indian origin taught by highly intolerant teachers have a very restrictive form of teaching. This is in direct contrast to the experience of the girl of West Indian origin who is taught by a highly tolerant teacher as comparison of the two teaching profiles illustrates and which is further supported by the negative correlation obtained between the orders of priority given to the modes of teaching by the two groups of teachers ( $\rho = -0.82$ ;  $p < 0.01$ ) (Appendix 41). The most distinctive features in this negative correlation are the highly tolerant teachers' high priority, and the highly intolerant teachers' low priority, to the acceptance of the girls' feelings and the allocation of extra time for their initiatives and the highly tolerant teachers' low priority, and the highly intolerant teachers' high priority, given to directives and criticism. Unlike their highly tolerant colleagues highly intolerant teachers tend to use a similar pattern of teaching whether they are teaching boys or girls of West Indian origin ( $\rho = +0.61$ ;  $p < 0.05$ ) (Appendix 41).

Girls of West Indian origin, taught by highly tolerant teachers using a 1-9-4-3-5-2/10-8-6-7 order of teaching priority, have a significantly ( $p < 0.01$ ) higher level of self-concept than those of girls

of the same ethnic origin taught by highly intolerant teachers using a 6-7/3-8-10-5-4-2-9-1 order of teaching priority (Appendix 42 and Table 26). In classes taught by highly tolerant teachers girls of West Indian origin record a level of self-concept which is not significantly different from those of other children in the class (Appendix 44 and Table 27). The situation is different, however, in those classes taught by highly intolerant teachers where girls of West Indian origin record a level of self-concept which is very significantly lower than that of boys of European origin ( $p < 0.01$ ) and significantly lower than that of girls of European origin ( $p < 0.02$ ) (Appendix 43 and Table 27).

In summary: when girls of West Indian origin are taught by highly intolerant teachers they receive less than their fair share of positive teaching but an excessive amount of direction and criticism. Their level of self-concept is significantly lower than that of their counterparts who are taught by highly tolerant teachers and is also significantly lower than that of boys and girls of European origin taught by highly intolerant teachers. The evidence of this research points to the possibility that the image girls of West Indian origin have of themselves as learners is likely to be more positive if they are in multi-ethnic classes which are taught by a teacher who is ethnically highly tolerant.

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In the two previous sections the use which highly tolerant and highly intolerant teachers make of the ten individual modes of teaching has been investigated and certain associations with the pupils' self-concept revealed before describing the pattern of priorities which emerge

during the inevitable conflation of the different modes when teachers are working individually with boys and girls of European, Asian and West Indian origins. This comparative examination of the professional behaviour of ethnically highly tolerant and ethnically highly intolerant teachers is now concluded by investigating what style of teaching may be associated with the relatively low level of self-concept of boys and girls of Asian and of West Indian origins compared to the higher level of self-concept of boys and girls of European origin discovered in those multi-ethnic classes taught by highly intolerant teachers (Appendix 43 and Table 27). In this context "style of teaching" refers to the balance of different modes representing the initiation and response elements of classroom interaction. Because we are concerned here not just with the use of individual modes but with the balance of their use we have followed Flanders<sup>(1)</sup> suggestion and computed ratios which provide four sets of indices related to the interaction with boys and girls of each ethnic group (Table 34).

The first of these, the teacher response ratio, is an index corresponding to the teacher's tendency to react positively to the ideas and feelings expressed by the children. Inspection of Table 34 reveals that highly intolerant teachers respond in a positive manner to the talking of their pupils far less frequently ( $\bar{x}$  24.81) than those teachers who are highly tolerant ( $\bar{x}$  44.46). This latter index compares favourably with the "norm" of "42" quoted by Flanders<sup>(2)</sup> but

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1. Flanders, N.A., Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. Inc. 1970, p.102.
  2. Flanders, N.A., Op. Cit. p.103.

TABLE 34: (See also Appendix 47)

Interaction indices for highly tolerant and highly intolerant teachers working individually with boys and girls of European, Asian and West Indian origins:

	Teacher response ratio (TRR).	Teacher question ratio (TQR).	Pupil initiation ratio (PIR).	Teacher authority ratio (TAR).
Highly tolerant teachers	WIG 58.88	AB 42.63	WIG 46.18	WIB 43.59
	AG 55.19	WIB 38.78	EB 38.08	AB 43.37
	AB 43.62	AG 36.59	WIB 37.21	EB 37.79
	EG 41.63	WIG 36.28	EG 37.14	EG 34.01
	EB 35.69	EB 31.64	AG 36.07	AG 32.66
	WIB 31.76	EG 26.33	AB 26.59	WIG 23.08
	$\bar{x}$ 44.46	$\bar{x}$ 35.38	$\bar{x}$ 36.88	$\bar{x}$ 35.75
Highly intolerant teachers	AG 34.77	AB 58.59	EB 26.32	WIG 65.23
	EG 34.39	WIG 52.88	EG 26.20	WIB 52.09
	EB 30.10	WIB 46.55	AB 22.76	EB 42.48
	AB 23.19	AG 46.43	AG 21.85	EG 41.12
	WIB 18.74	EB 42.37	WIB 19.57	AG 39.18
	WIG 7.69	EG 38.62	WIG 7.84	AB 35.33
	$\bar{x}$ 24.81	$\bar{x}$ 47.57	$\bar{x}$ 20.76	$\bar{x}$ 45.91

Formulae:

$$\text{Teacher response ratio (TRR)} = 100(C1+C2+C3) \div (C1+C2+C3+C6+C7)$$

$$\text{Teacher question ratio (TQR)} = 100(C4) \div (C4+C5)$$

$$\text{Pupil initiation ratio (PIR)} = 100(C9) \div (C8+C9)$$

$$\text{Teacher authority ratio (TAR)} = 100(C6+C7) \div (C5+C6+C7)$$

it seems that those teachers who are ethnically highly intolerant make only minimal use of their pupils' contributions to the interaction of the multi-ethnic classroom. This observation applies to boys and girls of each ethnic group since we find that in every case highly tolerant teachers respond more often to the children's ideas and feelings than those teachers who are highly intolerant. Furthermore, with the notable exception of girls of Asian origin, highly intolerant teachers respond positively to the talking of those pupils whose self-concept level is low less frequently than they do with boys and girls whose level of self-concept is significantly higher (Appendix 43 and Table 27). The highly intolerant teachers' unusually responsive reaction in respect of girls of Asian origin is largely influenced by the less than expected amount of criticism they receive coupled with the very few directives which, as we have suggested earlier, may result from the relatively passive nature of many girls of Asian origin. This passivity seems to appeal to highly intolerant teachers for they also react positively giving more than expected time to the acceptance of the girls' feelings and to giving praise and encouragement. Although it is correct to exercise some caution in the interpretation of these findings it does seem possible that there may be an association between the highly intolerant teachers' limited tendency to react positively to the ideas and feelings displayed by their pupils and the level of the children's self-concept.

The second index, the teacher question ratio, illustrates the tendency of a teacher to emphasize questioning in preference to direct teaching of the didactic type. We find that when they are working with individual children in multi-ethnic classrooms highly intolerant teachers favour the use of questions ( $\bar{x}$  47.57), in preference to direct

teaching, more often than highly tolerant teachers ( $\bar{x}$  35.38). It is also pertinent to observe that both these teacher question ratios, arising as they do from interaction in multi-ethnic classrooms, are substantially in excess of the "norm" given as "26" by Flanders<sup>(1)</sup> for a teacher question ratio. Although there is no explicit indication of the ethnic composition of the classes observed for the data from which this figure was calculated we may safely assume that if the classes used were multi-ethnic such a fact would have been recorded in Flanders' rigorous work. We are left then with the interesting observation that both highly tolerant and highly intolerant teachers use questions in preference to direct teaching with boys and girls of all three ethnic groups to a greater extent than the quoted "norm" taken, we assume, from interaction in a conventional classroom. Furthermore, the greater preference for using questions, demonstrated in the teaching style of highly intolerant teachers, is exercised more frequently by them, without exception, with boys and girls of each of the three ethnic groups, than by highly tolerant teachers (Table 34). One further pattern is discernible namely that the teacher question ratio for boys and girls of European origin, when taught by highly tolerant or highly intolerant teachers, is lower than that for children of Asian or of West Indian origins who are taught by teachers of the same level of ethnocentrism. The tendency to use questions in preference to direct teaching seems to be used not only more frequently than is the norm but is directed towards boys and girls of Asian and of West Indian origins in the classes of both highly tolerant and highly intolerant teachers.

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1. Flanders, N.A.,

Analyzing Teaching Behavior.

Addison-Wesley Publishing Co. Inc. 1970, p.103.

The third index to be computed, a pupil initiation ratio, shows the pupils' initiatory talk as a proportion of all pupil talking. Not unexpectedly the highly tolerant teachers' average index ( $\bar{x}$  36.88) is considerably higher than that of the highly intolerant teachers' ( $\bar{x}$  20.76) and it is very close to Flanders' <sup>(1)</sup> average of "34". As with the teacher response ratio, described previously, the pupil initiation ratio is higher for boys and girls of each ethnic group when they are taught by highly tolerant teachers than when they are taught by highly intolerant teachers so the importance that highly tolerant teachers attach to initiatory pupil talk in preference to responsive talking is evident. There is also a tendency for this preference to be positively associated with the level of the children's self-concept with the highly tolerant teacher providing most time for initiatory talk to those children who record the highest levels of self-concept (Appendix 46). In those classes taught by highly intolerant teachers a similar preferential provision of time for initiation is given to pupils with high self-concept levels although, as described above, at a much lower level than in the classroom of the highly tolerant teacher ( $\rho$  +0.943;  $p < 0.01$ ) (Appendix 46). The allocation of time to initiation, strongly preferential to those children with a high level of self-concept, appears to be particularly detrimental to girls of West Indian origin ( $\bar{x}$  7.84) taught by highly intolerant teachers.

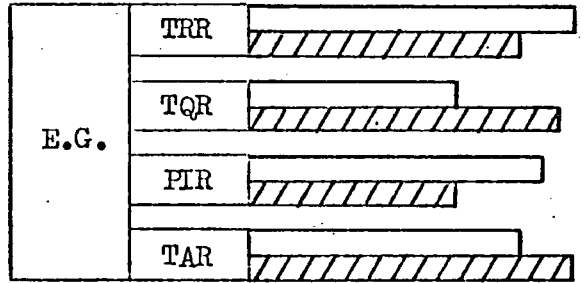
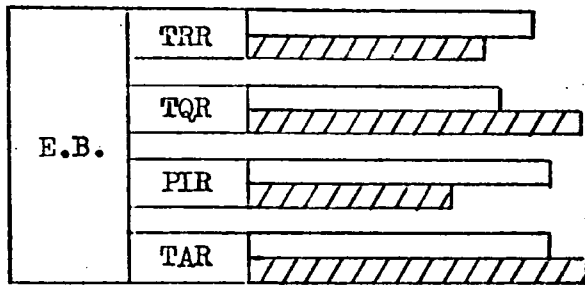
The teacher authority ratio is an index representing that proportion of the teacher's direct teaching activity used for giving directions, criticizing and justifying his authority. The index for

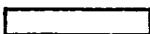
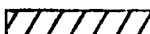
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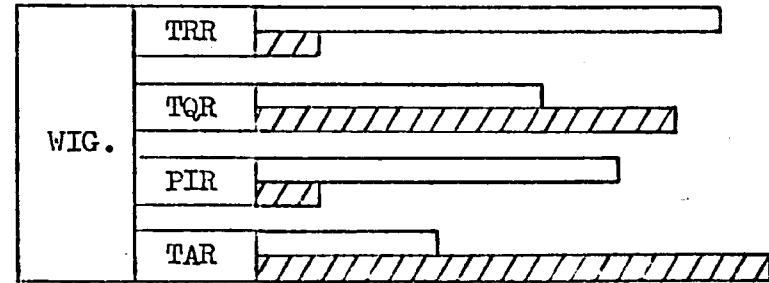
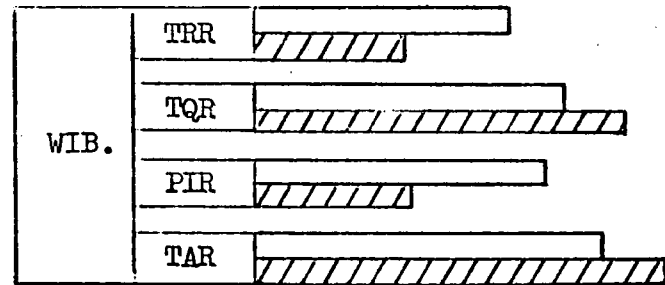
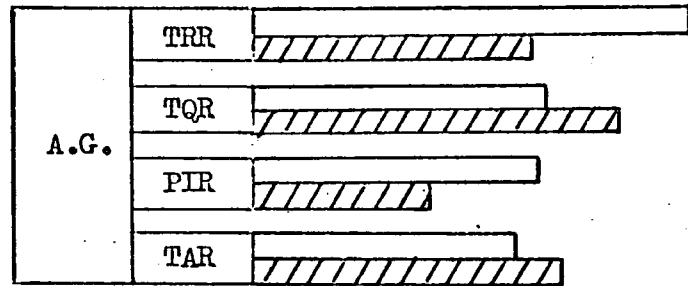
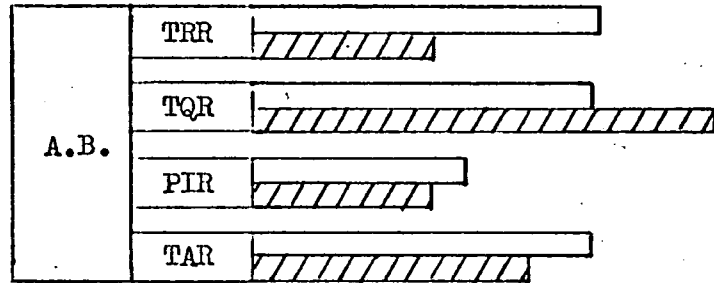
1. Flanders, N.A., Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. In. 1970, p.103.

TABLE 35:

Histogram of interaction indices based on the content of Appendix 47:



 Highly tolerant teachers:  
 Highly intolerant teachers:



highly intolerant teachers ( $\bar{x}$  45.91) is some ten points higher than that for highly tolerant teachers ( $\bar{x}$  35.75) which is what might have been reasonably anticipated. Highly tolerant teachers spend proportionately more of their direct teaching activity in this authoritarian manner with boys, irrespective of their ethnic origins, than with girls (Table 34). Their highly intolerant counterparts make a different distinction based on ethnic group membership spending proportionately more time in authoritarian activity with boys and girls of West Indian origin and least time in this manner with boys and girls of Asian origin. These highly intolerant teachers also spend a greater proportion of their direct teaching activity than highly tolerant teachers adopting an authoritarian stance with the children of each ethnic group other than boys of Asian origin. Why highly tolerant teachers should uncharacteristically spend such a large proportion of their time in authoritarian interaction with boys of Asian origin is not possible to determine from our data although we can say that the high teacher authority ratio is largely influenced by the comparatively small amount of direct teaching these boys receive from highly tolerant teachers (Table 29 and p.172).

Within multi-ethnic classes taught by highly intolerant teachers significant differences have been discovered between the self-concept levels of children of European origin and children of Asian and of West Indian origins (Appendix 43). Our evidence suggests that their teachers, when teaching children individually, use a style of teaching (Appendix 47) within which they react less positively ( $\bar{x}$  TRR 24.81) to the ideas and feelings expressed by their pupils than highly tolerant teachers ( $\bar{x}$  TRR 44.46). This lack of responsiveness is particularly noticeable when highly intolerant teachers work individually with girls of West

Indian origin (TRR 7.69) and, to a lesser extent, with boys of the same ethnic group (TRR 18.74). During the more content oriented sequences of interaction with individual children the use of questions figures prominently in the work of the teacher who is highly intolerant ( $\bar{x}$  TQR 47.57) and is very conspicuous when they are teaching boys of Asian origin (TQR 58.59) and girls of West Indian origin (TQR 52.88) whilst the balance of direct teaching is weighted very much in favour of boys and girls of European origin (Appendix 47 and Table 35). Another feature of the teaching style of highly intolerant teachers which seems to favour children of European origin is the greater opportunity which they are given during their talking to initiate ideas and opinions and to introduce questions and new topics into the interaction of the multi-ethnic classroom. The limited opportunity for initiatory talk given to black pupils by highly intolerant teachers is particularly noticeable in the case of girls of West Indian origin (PIR 7.84) whose white classmates, when they are talking, receive over three times as much opportunity to engage in initiatory activity (Appendix 47). When girls of West Indian origin contribute to the interaction of the multi-ethnic class they do so mainly in direct response to the highly intolerant teacher's initiatives and, being given very little freedom to express their own ideas, seem to be subjected to a style of teaching which maintains a tight controlling influence. This restrictive feature in the style of teaching of the highly intolerant teacher is displayed in a more explicit fashion in the emphasis these teachers place on projecting their authority ( $\bar{x}$  TAR 45.91). This is illustrated most markedly when individual work takes place with boys (TAR 52.09) and girls (TAR 65.23) of West Indian origin with whom highly intolerant teachers use a balance of teaching which strongly emphasizes directives, criticism and the authority of the teacher at the expense of direct teaching of the didactic type.

In the less personal work with the class as a whole highly intolerant teachers respond to their pupils' ideas and feelings even less positively (TRR 12.64) than during individual teaching which indicates an almost overriding concern with maintaining class control through criticism and directives. This tight teacher control tends to generate an authoritarian atmosphere within which direct teaching to the class as a whole takes place. However, the teacher authority ratio for working with the class as a whole (TAR 24.37) is lower than that when teaching children individually (TAR 45.91) which illustrates the emphasis that highly intolerant teachers give to controlling and regulating the behaviour of individual children. This style of teaching the class as a whole conflated with the style of teaching used during periods of individual teaching by highly intolerant teachers, in whose classes boys and girls of Asian and of West Indian origins have a low level of self-concept, emphasizes the use of questions, directives, criticism and authority statements at the expense of direct teaching during which the teacher would be transmitting information in a variety of forms. This very negative style of teaching is accentuated by a lack of positive response from the teacher to the contributions of the children who are given only minimal opportunity to introduce their own initiatives. In those classes taught by teachers who are highly intolerant it is children of West Indian origin, especially the girls, who are most seriously affected by this style of teaching and it is these children who record the lowest levels of self-concept.

This chapter began with the assertion that "the behaviour of the teacher in the multi-ethnic classroom, unless it is consciously modified to produce a spurious behavioural pattern for some particular reason, is likely to reflect those attitudes which are most strongly

held". It went on to argue that work with children of different ethnic origins would tend to be influenced by the teachers' degree of ethnocentrism which would predispose them to act "in some preferential manner" and might, because of the significance of the teacher-pupil relationship in the development of the children's self-concept, be found to be associated with the level of self-concept found amongst their pupils. The subsequent investigation disclosed the relationship that exists between the teachers' ethnocentrism and their professional behaviour in the multi-ethnic classroom and demonstrated that real differences do occur in the use of the ten modes of teaching into which all classroom interaction was classified for this study. Our enquiry shows that these differences appear to be manifested in a complex variety of ways but most clearly in the orientation of highly tolerant teachers towards children of Asian and of West Indian origins and in the positive relationship which seems to exist between highly intolerant teachers and boys and girls of European origin. Although, as was discussed earlier, it is correct to exercise some caution in the interpretation of data derived from a cross-sectional study there are some indications that the level of teachers' ethnocentrism tends to be associated with their professional behaviour in the multi-ethnic classroom and that boys and girls of different ethnic groups are likely to receive different styles of teaching in which teachers give differing emphases to certain modes of teaching some of which appear to be associated with the children's level of self-concept.

TEACHERS' ATTITUDES TOWARDS EDUCATION, THEIR STYLE OF TEACHING  
AND THEIR PUPILS' SELF-CONCEPT.

The strong influence which teachers' attitudes towards education can have on their professional activity has been demonstrated in a number of studies which were reviewed earlier in chapter two of this work. It seems, therefore, important to set this research into the context of the teachers' attitudes towards the overall professional activity in which they are engaged and to conclude our study into the teachers' influence on the self-concept of pupils of different ethnic origins by investigating what association exists, if any, between the types of attitudes teachers in our sample hold about education, their use of different teaching styles and their pupils' level of self-concept. For this purpose we again make use of the four sets of indices introduced in the last section of the previous chapter and obtained by computing the teacher response ratio (TRR), the teacher question ratio (TQR), the pupil initiation ratio (PIR) and the teacher authority ratio (TAR) each of which is analysed in relation to the attitude dimensions of tender-toughmindedness, radicalism-conservatism and idealism-naturalism.

The tender-toughminded dimension:

From the work already undertaken<sup>(1)</sup> into teachers' attitudes towards education we would expect that teachers holding attitudes about education which are inclined towards toughmindedness would be likely to display signs of authoritarianism and impatience in their insistence on

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1. Reviewed on pages 46 - 52.

quick practical responses whilst emphasizing their own extrovert prominence in the multi-ethnic classroom. At the opposite end of the scale the more introverted and theoretically orientated teachers holding tenderminded attitudes towards education may be expected to undertake their work in a more individualistic manner exercising a greater degree of personal involvement in the activity of the classroom.

Of our sample seventy percent of the teachers hold attitudes towards education which are toughminded with the proportion of women holding such attitudes being significantly greater ( $p < 0.001$ ) than men of whom most hold tenderminded attitudes (Table 9). Toughminded teachers incline towards idealism and radicalism: tenderminded teachers incline towards naturalism and radicalism (Appendices 11 and 12).

Our evidence shows that in multi-ethnic classrooms both toughminded and tenderminded teachers seem to react more positively to the ideas and feelings expressed by girls than they do to those of boys in each ethnic group. Both groups of teachers also tend to react more negatively to the contributions made by boys of West Indian origin than they do to those made by any other children (Appendix 48). These responses of both groups of teachers whilst similar in pattern are, nevertheless, at different levels: tenderminded teachers tend to respond more positively to boys and girls of Asian and West Indian origins than their toughminded colleagues who tend to react most positively with boys and girls of European origin. In the course of their work tenderminded teachers are likely to react most positively with girls of West Indian origin (Ten-TRR 37.43) and least positively with boys of the same ethnic group (Ten-TRR 21.08) whereas those teachers holding toughminded attitudes to their work engage in frequent positive responses with girls of European origin

(Tgh-TRR 35.72) and only rarely with boys of West Indian origin (Tgh-TRR 15.10).

The use of questions (C4) in relation to the time spent by the teacher in direct teaching (C5) is shown by the teacher question ratio for which Flanders<sup>(1)</sup> gives a norm of '26'. With the exception of the index recorded for interaction between toughminded teachers and boys of European origin (Tgh-TQR 21.80) all teacher question ratios in our sample exceed this norm. All the teachers, irrespective of whether they hold tender or toughminded attitudes towards their task, spent a higher proportion of time asking questions of children of Asian and of West Indian origins than they did with children of European origin. In other words the teaching of children of European origin, especially boys, tends to emphasize direct teaching in preference to questioning more strongly than that teaching which is given to children of Asian and of West Indian origins. With the exception of girls of Asian origin all black children receive a higher proportion of questioning from toughminded teachers than they do from those teachers holding tenderminded attitudes towards education.

The extent to which children initiate their own contributions to classroom interaction, as a proportion of all the time they spend talking, is indicated by the pupil initiation ratio which we find is lowest for children of Asian origin whether they are taught by tough or by tenderminded teachers (Appendix 48). When they are taught by teachers holding toughminded attitudes boys, when compared with girls of

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1. Flanders, N.A.,

Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. Inc.  
1970, p.103.

the same ethnic group, use a larger proportion of the time they spend talking to initiate their own ideas: girls in these classes tend to spend more of their talking time in response to the questions of their toughminded teachers than they do in initiating their own contributions. In classes taught by teachers holding tenderminded attitudes towards their work there is no discernible pattern of pupil initiation although there is tendency for these teachers to give pupils of West Indian origin more time for initiatory talking than other children except girls of European origin who use an exceptionally high proportion of their talking for this particular activity.

The exercise of authority by teachers in multi-ethnic classrooms expressed as a proportion of their direct teaching activity shows some distinct patterns. Both tenderminded and toughminded teachers spend proportionately least time exercising their authority with children of European origin followed by children of Asian origin spending most of this time with children of West Indian origin. Within this general pattern toughminded teachers spend less time with children of Asian and of West Indian origins than those teachers who are tenderminded but use a higher proportion of their direct teaching time exercising their authority with boys than with girls of each ethnic group. Furthermore, this time spent with boys of each ethnic group by toughminded teachers is greater than that spent by those teachers holding tenderminded attitudes towards education. However, the reverse is the case with girls with whom tenderminded teachers spend more time justifying their authority than do those holding toughminded attitudes towards education but both groups of teachers spend most of this time justifying their authority and criticizing boys of West Indian origin (Appendix 48).

It is within the context of these teaching styles that girls of Asian origin and boys of West Indian origin, who are taught by tenderminded teachers, record a significantly higher level of self-concept than those girls and boys of the same ethnic groups who are taught by teachers holding toughminded attitudes about their work (Appendix 49). Within those classes taught by tenderminded teachers there is no significant difference between the level of these pupils' self-concepts and those of other children in the same classes (Appendix 50) but in those classes taught by teachers holding toughminded attitudes about education girls of Asian origin and boys of West Indian origin have significantly lower levels of self-concept than boys and girls of European origin, boys of Asian origin and girls of West Indian origin (Appendix 51). It is within these classes taught by toughminded teachers that boys of West Indian origin receive responses from their teachers that are decidedly negative (Tgh-TRR 15.10) and are subjected to a high level of authoritarian control (Tgh-TAR 53.32). The major feature associated with the toughminded teachers' work with girls of Asian origin is the very limited opportunity given their pupils to express their own ideas (Tgh-PIR 24.17) contrasted with the time allocated to other pupils for the same activity (Appendix 48).

The radical-conservative dimension:

The position a teacher holds along the radical-conservative continuum provides an indication of the subjects' attitudes towards change in education with those holding conservative attitudes supporting the maintenance of traditional and conventional approaches to teaching whilst those holding radical attitudes would be most likely to encourage

and countenance changes away from prescriptive practices in their work in the classroom. Teachers in the sample holding predominantly radical attitudes about education account for almost seventy-six percent of the sample with teachers holding conservative attitudes constituting the remaining twenty-four percent. There is no significant difference in the proportions of men and women holding predominantly radical and predominantly conservative attitudes towards education (Table 9). Subjects in the sample holding predominantly conservative attitudes and also those holding predominantly radical attitudes about education have a strong tendency towards idealism (Appendix 10).

Teachers in the sample holding radical attitudes towards education show a tendency to react more positively to the ideas and feelings of their pupils than teachers holding conservative attitudes. Boys of West Indian origin are the only group to receive more positive reaction from teachers holding conservative attitudes (C-TRR 20.82) than from teachers holding radical views about education (R-TRR 17.37). Apart from this one difference there is a remarkable similarity in the pattern of responses made by radical and conservative teachers to children's ideas and feelings. Close inspection of Appendix 52 will show that both radical and conservative teachers respond more to girls than to boys in each ethnic group. Both categories of teacher also respond more to boys of European origin than they do to boys of Asian or West Indian origins and they also respond more to girls of European origin than they do to girls of Asian or West Indian origins. The highest ratio comes from the interaction of radical teachers with girls of European origin (R-TRR 36.60) which, even though it is the highest, is lower than the quoted norm of '42' and the lowest ratio is that from radical teachers' reactions to boys of West Indian origin (R-TRR 17.37). Boys and girls

of West Indian origin receive less positive response from teachers holding predominantly conservative and also those holding predominantly radical attitudes about education than any other children.

There is also a notable similarity of pattern in the proportion of time these teachers spend in the use of questions with individual children of different ethnic origins. Both groups of teachers, conservative and radical, have higher teacher question ratios than the quoted norm of '26' (R-TQR  $\bar{x}$  31.95; C-TQR  $\bar{x}$  34.52) and tend to use questions more frequently with black children than with white. Teachers holding conservative attitudes towards education use substantially more time questioning boys and girls of Asian and of West Indian origins than their more radical colleagues (Appendix 52). However, they use less time questioning white children than teachers holding radical attitudes towards the task in which they are engaged which suggests that white children taught by conservative teachers are likely to receive proportionately more direct teaching than black pupils.

Allowing children to initiate their own contributions to the interaction which takes place in the multi-ethnic classroom is practised more by teachers holding radical views about education than by those whose attitudes are predominantly conservative and who stress the importance of the responses given to their questions by the children (Appendix 52). These differences seem to affect boys and girls of all ethnic groups except for boys of European origin to whom teachers with conservative views give fractionally more time for initiatory talking than radically minded teachers. The most vivid contrasts occur in those classes taught by teachers holding conservative attitudes about education. These teachers give significantly more opportunity to

white children to initiate their ideas than they do to black children ( $t = 4.445$ ;  $p < 0.02$ ). Furthermore, teachers holding conservative views give significantly less opportunity to black children to engage in initiatory talking than those teachers holding attitudes which are predominantly radical ( $t = 2.469$ ;  $p < 0.05$ ). It seems to make little difference to children of European origin, as far as initiatory talking is concerned, whether they are taught by conservative or radically minded teachers.

Teachers holding conservative attitudes about education tend, in our sample, to be slightly more authoritarian with black boys than with white boys and with black girls than with white girls but, in the absence of any statistical significance in the data, further generalisations are precluded. In those classes taught by teachers holding radical views about education boys of West Indian origin are subjected to the greatest amount of authoritarian comment significantly in excess of other children in the same classes ( $t = 3.097$ ;  $p < 0.05$ ). A similar emphasis is not evident in classes taught by teachers holding conservative attitudes towards education. Despite this specific difference conservative or radical attitudes towards education appear to make little difference to the extent to which teachers holding such views generally exercise their authority in the multi-ethnic classroom (Appendix 52).

This similarity may be a contributory factor in the lack of significant differences discovered in the levels of self-concept of children taught by teachers holding conservative and those holding radical attitudes about education (Appendix 53). Although this is the case between classes there is, nevertheless, within classes some distinct

differences. Boys of European origin in those classes taught by teachers holding conservative attitudes towards education have a significantly higher level of self-concept than boys and girls of Asian and of West Indian origins who are in the same classes (Appendix 54). They received more positive responses from their conservative teachers and more time for initiatory talking than the children of Asian and of West Indian origins and they were subjected to less questioning and less authoritarian comment (Appendix 52). In those classes which are taught by teachers holding predominantly radical attitudes towards education girls of Asian origin and boys of West Indian origin have significantly lower levels of self-concept than boys and girls of European origin and girls of West Indian origin (Appendix 55). The girls of Asian origin received a high level of positive response from their radically minded teachers but a very low level of questioning, little opportunity for initiatory talking and only minimal authoritarian comment. Although teachers holding radical views about their work respond to girls of Asian origin in a strongly positive manner the general picture which emerges is one in which these pupils are relatively ignored. That is not the case with boys of West Indian origin who receive from radically minded teachers an almost exactly opposite style of teaching which emphasizes questioning and authoritarian statements and gives a lot of time to the boys' initiatory talking but only minimal time for responding positively to their ideas and feelings.

The naturalism-idealism dimension:

Teachers holding attitudes towards education that incline towards naturalism would be expected to emphasize in their teaching the importance of freedom of expression in the the classroom for all children

allowing them adequate time to focus on their own interests as a means of self-motivation. This child-centred approach by naturalistic teachers is likely to make a lot of use of sensory experience in an effort to assist the children's adjustment to their environment.

Whereas the teacher holding naturalistic attitudes will tend to guide the child through learning experiences the teacher at the other end of the continuum holding idealistic views is likely to infuse ideas and information whilst stressing the importance of high levels of achievement. These teachers would also give prominence to the need to master the content of their lessons and would tend to regulate interaction so as to maximize opportunities for the development of their pupils' character which they see as an essential component of education. The analysis which follows reveals how these teachers manifest these constructs with boys and girls of different ethnic origins during the teaching process in the multi-ethnic classroom.

Almost thirty-six percent of the teachers in the sample incline towards naturalism leaving some sixty-four percent holding attitudes towards education reflecting their idealism. There is no statistical significance between the numbers of men and women holding idealistic and those holding naturalistic attitudes towards education (Table 9). Teachers holding naturalistic attitudes incline towards tendermindedness and those holding idealistic attitudes incline towards toughmindedness (Appendix 11). Both groups show a strong tendency towards radicalism (Appendix 10).

Given the closer personal involvement in the work of the classroom advocated by teachers inclined towards naturalism it is not surprising to find that they have a significantly ( $p < 0.05$ ) higher

response ratio than teachers inclined towards idealism (Appendix 56). This is not simply a general difference but one which is spread throughout the interaction with boys and girls of all ethnic groups. In every case the naturalistic teacher response ratio is higher than the corresponding idealistic one. Girls, irrespective of whether they are taught by teachers inclined towards idealism or naturalism, receive more positive response from their teachers than boys of the same ethnic group. The pattern of responses within those classes taught by idealistic teachers is for them to respond less to the ideas and feelings of boys of Asian and of West Indian origins than to those of European origin. Likewise with girls, the idealistic teacher response ratio tends to be lower with girls of Asian and of West Indian origins than with girls of European origin (Appendix 56). In the other classes those teachers inclined towards naturalism have a tendency to respond more positively to children of Asian origin than to children of European or of West Indian origins.

There is some indication<sup>(1)</sup> that questioning pupils in the multi-ethnic classroom is used not only as a test of the children's grasp of subject matter but also as a control mechanism. Flanders<sup>(2)</sup>, in his discussion on the use of questions as a check on pupils' reactions to ideas and on their understanding, "would expect the average TQR for a number of teachers, each observed on several occasions, to be close to '26'". For teachers inclined towards naturalism working in multi-ethnic classrooms and for those inclined towards idealism both indices

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1. See pp. 122 - 129.

2. Flanders, N.A., Analyzing Teaching Behavior.  
Addison-Wesley Publishing Co. Inc.  
1970, p.102.

exceed this norm (N-TQR  $\bar{x}$  37.33; I-TQR  $\bar{x}$  33.17) which may be an indicator to the presence of behavioural difficulties in the multi-ethnic classroom. It might reasonably be anticipated that with their stress on the need to master subject matter the more formally orientated idealistic teachers would spend more time asking questions than their naturalistic counterparts. However, our evidence suggests that in practice they tend to use a smaller proportion of their time questioning boys and girls of each ethnic group other than girls of West Indian origin (Appendix 56). These girls, unlike those of European and those of Asian origins, also attract a higher proportion of questioning than boys of the same ethnic group which may indicate a difficulty which idealistic teachers attempt to resolve indirectly by excessive questioning. Moreover the proportion of time given to questioning by teachers inclined towards naturalism and by those inclined towards idealism is greater during interaction with black children than it is with white children.

Given the underlying educational philosophy of teachers holding naturalistic attitudes about education it is not surprising to find that they tend to allow greater scope for their pupils to initiate their own contributions to the interaction of the multi-ethnic classroom than the more formally and traditionally centred teachers holding idealistic attitudes towards education (Appendix 56). This difference in the proportion of time allowed children for this activity is evident also amongst the different ethnic groups because, with the one exception of boys of Asian origin, all children taught by teachers inclined towards naturalism receive a greater proportion of time in which to initiate their contributions than their fellow pupils of the same ethnic group in classes taught by idealistic teachers. The biggest discrepancies in the proportions of time given for initiatory talking occur during

interaction with girls of all ethnic groups, particularly those of Asian and of West Indian origins, who receive substantially less proportional time from idealistic than from naturalistic teachers. Teachers inclined towards idealism also tend to allow more time for initiation when interacting with white children than they do when interacting with black children.

The teacher authority ratios suggest that teachers inclined towards idealism may possibly experience some behavioural difficulties with boys more than they do with girls ( $t = 3.212$ ;  $p < 0.05$ ) since in every ethnic group the index for interaction with boys is higher than that for girls of the same ethnic group. There is also a strong tendency for these teachers to be more authoritarian with black children than with white because as our evidence shows boys of Asian and of West Indian origins attract a greater proportion of authoritarian comment than boys of European origin (Appendix 56). Furthermore girls of Asian and of West Indian origins also attract more authoritarian comment than girls of European origin taught by idealistic teachers. The proportional use of authoritarian comment which emerges from naturalistic teachers' authority ratios shows a distinct ethnic pattern with children of Asian origin being subjected to less of this form of control than children of European origin and substantially less than children of West Indian origin (Appendix 56). That the use these teachers make of the more informal approaches to education may lead to some behavioural problems with boys of West Indian origin might possibly be inferred from the significant difference ( $t = 4.621$ ;  $p < 0.01$ ) between the proportion of authoritarian comment they receive compared with other children in the same classes. In classes taught by teachers inclined towards idealism these boys also receive a very substantial amount of authoritarian comment but not at a

level which is significantly different from the other children in the same classes.

Girls of Asian origin taught by teachers inclined towards idealism have a significantly lower level of self-concept ( $p < 0.05$ ) than those girls of the same ethnic group taught by teachers inclined towards naturalism (Appendix 57). Inspection of Appendix 56 will show that idealistic teachers respond to girls of Asian origin much less positively than their naturalistic colleagues, spend less time asking questions of these pupils, allow them considerably less time for initiatory talking and spend slightly less time making authoritarian comments. Within classes taught by teachers holding idealistic attitudes towards education girls of Asian origin and boys of West Indian origin have a significantly lower level of self-concept than boys and girls of European origin (Appendix 58). If we compare the teaching style used by idealistic teachers with girls of Asian origin with that used by the same teachers with girls of European origin we find that these teachers respond less positively to the ideas and feelings of the girls of Asian origin and give them far less time for initiatory talking: girls of Asian origin are also subjected to proportionately more questioning and to proportionately more authoritarian comment than girls of European origin in the same classes (Table 36). Boys of West Indian origin in the same classes also receive considerably less positive response from idealistic teachers than boys of European origin and this, coupled with a much greater proportional amount of authoritarian comment and more questioning, provides them with a more negative style of teaching than that given to boys of European origin (Table 37). Boys of Asian origin in classes taught by teachers inclined towards idealism also have a lower level of self-concept than girls of European origin and we again

TABLE 36:

Interaction indices for girls of European and girls of Asian origins in classes taught by teachers holding idealistic attitudes towards education:

Index	E.G.	A.G.	d
I-TRR	33.00	28.36	- 4.64
I-TQR	27.10	30.38	+ 3.28
I-PIR	32.38	21.97	-10.41
I-TAR	36.13	38.48	+ 2.35
$\bar{x}$ S-Con.	62.40	56.59	
t-value	4.347		
p	< 0.001		

TABLE 37:

Interaction indices for boys of European and boys of West Indian origins in classes taught by teachers holding idealistic attitudes towards education:

Index	E.B.	WIB.	d
I-TRR	25.02	14.53	-10.49
I-TQR	30.03	33.35	+ 3.32
I-PIR	31.32	32.72	+ 1.40
I-TAR	44.34	54.50	+10.16
$\bar{x}$ S-Con.	62.40	56.46	
t-value	3.174		
p	< 0.01		

find similar differences in the style of teaching used with each group of children with those recording the lowest levels of self-concept receiving less positive response from these teachers, more questioning, more authoritarian comment and proportionately less time in which to engage in initiatory talking (Table 38). Moving into those classes taught by teachers inclined towards naturalism we find that the only significant difference in self-concept levels is between boys of European origin and boys of West Indian origin. Again we find that the differences in the styles of teaching received by these two groups of pupils from teachers holding naturalistic attitudes is similar in pattern to those recorded for interaction between idealistic teachers and their pupils who have significantly different levels of self-concept. Pupils with significantly lower levels of self-concept (in the case of naturalistic teachers only boys of West Indian origin) tend to receive less positive response from their teachers, more questioning and are subjected to more authoritarian comment. In the case of boys of West Indian origin they receive very slightly more time for initiatory talking which is against the general trend although in keeping with the pattern used with these boys by teachers inclined towards idealism (Table 39).

This section of our study into teachers' influences on the self-concept of pupils of European, Asian and West Indian origins has provided an indication of the attitudinal structure underlying the teachers' activity in the multi-ethnic classroom. It is evident from our investigation that amongst teachers in the sample schools there is a predominance of toughmindedness, radicalism and idealism (Table 9) and from the evidence presented in this section it may be tentatively deduced that girls of Asian origin and boys of West Indian origin are those children whose level of self-concept is most likely to be associated adversely with

TABLE 38:

Interaction indices for girls of European origin and boys of Asian origin in classes taught by teachers holding idealistic attitudes towards education:

Index	E.G.	A.B.	d
I-TRR	33.00	23.15	- 9.85
I-TQR	27.10	36.77	+ 9.67
I-PIR	32.38	27.52	- 4.86
I-TAR	36.13	49.78	+13.65
$\bar{x}$ S-Con.	62.40	58.98	
t-value	2.505		
p	< 0.02		

TABLE 39:

Interaction indices for boys of European origin and boys of West Indian origin in classes taught by teachers holding naturalistic attitudes towards education:

Index	E.B.	WIB.	d
N-TRR	31.98	23.76	- 8.22
N-TQR	32.57	35.99	+ 3.42
N-PIR	32.78	34.42	+ 1.64
N-TAR	44.12	52.75	+ 8.63
$\bar{x}$ S-Con.	63.48	59.22	
t-value	2.242		
p	< 0.05		

the type of teaching which results from the attitudes which their teachers hold about education. In all classes, except those taught by tenderminded teachers, these two groups of pupils record levels of self-concept which are significantly lower than those recorded by certain of their contemporaries (Appendix 60). Of the three dominant attitude dimensions identified in the sample multi-ethnic schools the teaching resulting from toughmindedness and from idealism appears to be most closely associated with the debilitation of the self-concept levels of girls of Asian origin and of boys of West Indian origin (Appendices 61 and 62). Those features of the teachers' work which may be associated with this debilitation of the self-concept can be distinguished by reference to Table 40 from which it may be seen that when girls of Asian origin record significantly lower levels of self-concept they receive from all teachers concerned less opportunity to initiate their own responses and ideas and they receive less authoritarian comment except from those teachers holding idealistic attitudes towards their work from whom they receive a higher proportion of directives and more criticism than girls of European origin. As far as boys of West Indian origin with significantly lower levels of self-concept are concerned it can be seen that they receive less positive response and more authoritarian comment from all teachers except those holding tenderminded attitudes (Table 40 and Appendix 63).

Accepting the evidence of previous studies which conclude that teachers' attitudes to education are likely to exert a strong influence on their professional activity in the classroom this section of this present study has investigated how such attitudes are manifested when teachers' interact with pupils of different ethnic origins. The evidence presented above in the form of initiation and response ratios shows how

TABLE 40:

Levels of response ratios for boys and girls of different ethnic origins recording significantly lower levels of self-concept in classes taught by teachers holding different attitudes towards education:

Teacher att. grp.	Ethnic groups with significantly lower self-concepts												Sig. higher s-concept				
	AB				AG				WIB					WIG			
	TRR	TQR	PIR	TAR	TRR	TQR	PIR	TAR	TRR	TQR	PIR	TAR		TRR	TQR	PIR	TAR
Tgh					+	+	-	-	-	+	-	+					
Rad					+	-	-	-	-	+	-	+					
Con	-	+	-	+	+	+	-	-	-	+	-	+	-	+	-	+	EB
Nat					+	+	-	-	-	+	+	+					
Id									-	+	+	+					
Tgh	-	+	-	+	-	+	-	-	-	+	+	+					
Rad					-	+	-	-	-	+	+	+					EG
Id	-	+	-	+	-	+	-	+	-	+	+	+					
Tgh					+	-	-	-	-	-	+	+					AB
Tgh					+	-	-	-	-	-	+	+					
Rad					+	-	-	-	-	-	+	+					WIG

Read the above table DOWN and then ACROSS left to right: for example, boys of Asian origin in classes taught by teachers holding conservative attitudes towards education receive less (-) teacher response than boys of European origin in the same classes.

the influence of ethnic variables may be concealed in the generalised picture which can emerge from the study of any pair of attitude dimensions. Furthermore the indications are that some differences do occur within the context of the multi-ethnic classroom which do not become evident until the data is analysed according to the sex and ethnic origins of the pupils and is related to the different attitudes towards education held by the teachers with whom the children are interacting (Appendices 48, 52 and 56). There is, for example, no immediately apparent difference between the extent to which responses and initiatives are related to either tenderminded

or toughminded teachers. However, we find that girls of Asian origin and boys of West Indian origin, who when taught by toughminded teachers record significantly lower levels of self-concept than girls and boys of European origin respectively, receive from these same teachers less responsiveness, more questioning and diminished time for their initiatives (Table 40). Other consistent patterns of response and initiation related to the sex of the pupils and their ethnic origins, their level of self-concept and their teacher's attitudes towards education are revealed through detailed analyses but tend to remain camouflaged in more generalised descriptions of the multi-ethnic classroom. It is not difficult, therefore, to accept the sincerity of those teachers who genuinely believe that they do not discriminate, either positively or negatively, to any greater or lesser extent than their colleagues holding different attitudes towards education and using different approaches in their work in multi-ethnic classes. It seems possible that some teachers, particularly those holding tenderminded attitudes towards education, may promote an educational environment in their multi-ethnic classrooms, which is significantly associated with the enhancement of the self-concept level of girls of Asian origin and boys of West Indian origin (Appendices 61 and 62). The evidence of our investigation into this aspect of teachers' influences on the self-concept of pupils of different ethnic origins leads us to postulate that the attitudes which teachers hold about education tend to foster, through the teaching styles generated by them, an educational environment which, in some cases, may be associated with the self-concept level of certain children in multi-ethnic classes and within which the expression of varying degrees of ethnocentrism takes place. The indications are that this may be an area which could usefully be investigated by further research.

## DISCUSSION AND CONCLUSIONS

This research was conducted against a backcloth of public concern about the observed lack of educational progress amongst children of so-called ethnic minority groups. The apparent under-achievement in academic subjects of many of these children, most notably those of West Indian origin, is the subject of a continuing debate fuelled by a disquiet over both the causes of failure in school and its consequences in society. Persistent failure, especially in a society in which success is consistently exalted, brings in its train a despondency which tends to breed frustration which frequently finds expression in ways which are socially unacceptable. Such feelings are likely to be intensified by the resentment which is likely to accrue if teaching is inappropriate to the felt needs of the pupils or is perceived by them to discriminate against their interests. Since the pupil's failure may be seen as a reflection of the teacher's failure the need to reveal something of the dynamics of teaching and learning in the multi-ethnic classroom was considered to be important in this research. Early endeavours at coping with the unfamiliar educational environment created by the influx of large numbers of children of mainly Asian and West Indian origins seemed to be hampered by the lack of objective evidence about teachers' work with these pupils. Early studies focused almost exclusively upon the children but since it is the teacher who bears the responsibility of making professional decisions, and who is seen by the children to be making selections, then such choices, when the class is multi-ethnic in composition, may be interpreted as ethnically biased. This sensitive situation within which teachers of multi-ethnic classes have to exercise their professional skills has generated a concern, particularly amongst the West Indian community, about the effects of what is generally referred to as

racism. It is within this multi-ethnic scenario that individual and social-psychological factors are active, some of which are likely to influence the pupils' learning. After investigating the evidence of other studies this research accepts that the image the child has of himself as a learner is likely to have a bearing on his scholastic achievement and, since teachers appear to be significant persons in the development of the pupils' self-concept, it is argued that the enhancement or deflation of the self may be associated with the teachers' use of different modes of teaching in the multi-ethnic classroom.

The research designed to investigate the problem recorded the frequency with which ten different categories of initiation and response were used with the whole class or with individual boys and girls of European, Asian or West Indian origins. It also recorded personal characteristics of the teachers in the sample and measured the types of attitudes they held about education and their level of ethnocentrism: the pupils' levels of self-concept were also measured. Subsequent analysis revealed the frequency with which men and women teachers, those teachers who were identified as highly tolerant or highly intolerant and those teachers holding different types of attitudes about education used each of the ten-different teaching modes with boys and girls of each ethnic group. These frequencies, related to different variables, were then statistically correlated with the level of the pupils' self-concept to determine the presence of any associations.

Putting multi-ethnic teaching under the microscope of research categorisation and analysis brings into focus some factors which might otherwise have remained concealed to 'naked-eye' observation but, conversely, it should not lead to spurious exactitude which may be as misleading as

excessive compounding of data. It would be correct, therefore, to exercise a cautious approach to the interpretation of small numerical differences in the descriptive analysis of multi-ethnic classroom interaction especially where there may be some impurities in data accumulated from a large number of observations. Nevertheless, it is important to remember that differences in the frequency counts of teaching modes relate to periods of time which may be real to pupils and which may reveal styles of teaching and patterns in the use of different modes which may be significant in the development of the pupil's self-concept. Small numerical differences ought not to be ignored but assessed with discretion since they may signify a relatively protracted and psychologically important period of time in the educational experience of the pupil who is being criticized, praised, listened to, questioned and so forth.

The study of teachers holding extreme levels of ethnocentrism has been given some prominence in this study because, as it was argued earlier, these attitudes might "prove to be a strong predeterminent influencing (teachers') behaviour and, consequentially, their possible effect on the children's self-concept" (p.102). The contrasting of extreme groups, useful though the technique is in order to highlight differences which might otherwise remain concealed in averaging-out differences over large moderate groups, does have some pitfalls for the unwary. The sub-sets for highly tolerant and highly intolerant teachers are, inevitably, small and the differences revealed ought to be interpreted with caution and ascribed with prudence especially since it is not known whether the sample from which the extreme groups were drawn is representative of the population of teachers in multi-ethnic schools in this country. There was, of course, no available sampling frame for ethnocentrism and it would have been inappropriate to establish one since

the method which delayed the identification of highly tolerant and highly intolerant teachers until the data processing and analysis is an advantage to reliability in this type of study because, as the distinctions were only revealed after the data collection, any observer expectations about the possible effect of ethnocentrism did not influence the categorisation of interaction. One further cautionary note should be sounded: it must not be assumed that the observed teaching distinctions between the two extreme groups provide any indication of the distribution within the group of forty-six moderately ethnocentric teachers which divides them. It would be quite erroneous to attribute a linear progression between the two extreme positions.

Although cross-sectional studies do not permit of conclusive generalizations, and correlational analysis tends to inhibit definitive statements, some characteristics do emerge which may indicate where further research could be usefully conducted. Evidence is presented which indicates that rather than teaching the class as a whole men and women teachers in the sample emphasized individual teaching with women using this method more frequently than men (p.83). Girls of Asian origin in classes taught by women appeared to gain additional attention in every mode of teaching except criticism and the initiation of their own contributions. When they were taught by men they lose individual teaching time gaining only in the time given to the acceptance of their feelings and, only minimally, in the praise and encouragement they received. Boys of West Indian origin received from both men and women teachers more individual attention, mainly in the form of criticism, than their numbers would warrant (p.86). In those classes taught by men the evidence suggests that there is likely to be a strong male orientation (p.87) whereas women teachers seemed to maintain an even distribution of individual teaching

time between boys and girls (p. 88). There is some indication that a positive association may exist between the individual teaching time men give to boys and girls of Asian origin and the level of their self-concepts but those of other pupils taught by men do not appear to be associated with the amount of individual attention they receive (p. 89). A different picture emerges from classes taught by women who, by their individual teaching, appear as though they may sustain the self-concept of all pupils except girls of European origin (p. 90). The evidence presented suggesting which modes of teaching used individually may be associated with the self-concept levels of boys and girls of different ethnic origins provides no overall pattern of associations (pp. 93 - 100). In the hands of men and women teachers different modes of teaching seem to give differing degrees of support to the self-concept levels of children of different ethnic origins. Praise and encouragement, for example, given by male teachers in the sample to boys and girls of West Indian origin, appears to be associated with their level of self-concept (p. 94) but finds no such association when given to pupils of the same ethnic group by women teachers (p. 288).

The level of ethnocentrism amongst teachers in the sample, which is lower than that of the general population (p. 104), is used as a major variable. The ten modes of teaching used in the analysis of multi-ethnic classroom interaction were analysed in respect of two extreme ethnocentric groups designated as highly tolerant and highly intolerant teachers. Highly tolerant teachers tended to interact more frequently with individual children relying less on teaching the class as a whole than their more ethnocentric colleagues (p. 113). These highly tolerant teachers, mainly by giving more time than would normally be expected to children's initiatives, seem to encourage a less convergent type of response

from children than highly intolerant teachers. This is especially evident when highly tolerant teachers work with children of West Indian origin, to whom they strongly inclined, allowing them, and to a lesser extent children of Asian origin, additional time at the expense of pupils of European origin (p. 146). The preferential approach shown by highly tolerant teachers to children of West Indian and of Asian origins is further demonstrated by the additional attention which is given to the acceptance and use of the contributions made by these children to classroom interaction and the excess time given to their praise and encouragement by highly tolerant teachers (p. 114). Children of West Indian and of Asian origins, who are taught by highly tolerant teachers, also gained more direct teaching than children of European origin which may further suggest that the educational climate of the multi-ethnic class taught by a teacher who is ethnically highly tolerant is supportive to children of West Indian and of Asian origins but is likely to be in some ways detrimental to pupils of European origin, especially boys. However, despite the generally supportive atmosphere for black children, boys of West Indian origin were subjected to excessive criticism by highly tolerant teachers from whom they also received more directives than other children (p. 136) which may suggest that these boys have some difficulty in coping with the relatively relaxed atmosphere of the highly tolerant teacher's multi-ethnic classroom. The existence of possible associations between the teachers' use of different modes of teaching and the level of the children's self-concept was investigated. The evidence suggests (p. 130) that in classes taught by highly tolerant teachers strong associations may be present between the self-concept of boys of European origin and the amount of direct teaching they receive; between the self-concept of boys of Asian and the criticism and the opportunities they receive for initiating their own contributions; and between the self-concept of girls of West Indian origin and the

directives they receive. There does not appear to be any single mode of teaching which the highly tolerant teacher can utilize with all pupils with the possibility of enhancing the self-concept. The indications suggest that future research might usefully investigate whether or not highly tolerant teachers can sustain the self-concept of boys of European origin using the stimulation of individual direct teaching; of boys of Asian origin by the encouragement of mild criticism and adequate time for initiation; of girls of West Indian origin by the support of clear directions. In addition to identifying which modes of teaching may be influential in the development of the self-concept the influence of the intermix of teaching modes was investigated and the levels of self-concept of children in the classes of highly tolerant and highly intolerant teachers was measured. The self-concept of boys and girls of West Indian origin in the sample was significantly higher when they were taught by highly tolerant teachers but when boys of European origin were taught by the same teachers their level of self-concept was significantly lower than when they were taught by highly intolerant teachers (p. 315).

In those classes taught by teachers who are highly intolerant the research tentatively suggests that children of European origin and, to a lesser extent, those of Asian origin might benefit from additional time which their teachers give to the positive modes of teaching. In the sample they gained excess praise and encouragement, their ideas were more acceptable and more extensively utilized, they received additional direct teaching and they were encouraged not only to respond to the highly intolerant teacher's questions but also to make their own contributions to the activity of the classroom. On the other hand children of West Indian origin in these classes received less praise and encouragement (p. 115), had less time spent on the acceptance and the use of their ideas

(p. 183) and were given only minimal time in which to initiate their own contributions to the interaction of the classroom. The more negative modes of criticism and direction were used extensively with children of West Indian origin by highly intolerant teachers with the girls of this ethnic group receiving more directions and the boys more criticism than their numbers would warrant in an equitable distribution (p. 185). The evidence from multi-ethnic classes in the sample taught by teachers who are ethnically highly intolerant suggests that a strong association may be present between the self-concept of girls of Asian origin and the amount of time they are given in which to initiate their own contributions to the work of the classroom (p. 152). There are also indications that associations exist between the level of self-concept of girls of European origin and the limited criticism they received from their highly intolerant teachers and also between the additional time these same teachers gave to their direct teaching of these girls (p. 172). Any influence which may be exerted by the highly intolerant teacher on the self-concept of girls of Asian and of European origins seems most likely to be exercised by the use of these particular modes of teaching. Enquiry into the influence of the intermix of all ten teaching modes reveals that, when taught by teachers who are ethnically highly intolerant, boys of European origin had a significantly higher, and boys and girls of West Indian origin a significantly lower, level of self-concept than those pupils of the same ethnic groups taught by highly tolerant teachers (p. 315). In classes taught by highly intolerant teachers pupils of Asian and of West Indian origins have significantly lower self-concept levels than children of European origins. No such differences were present amongst those pupils in classes taught by teachers who are ethnically highly tolerant (p. 316).

The pattern of priority given to the different modes of

teaching used with boys and girls of each ethnic group revealed some differences in the teaching profiles of highly tolerant and highly intolerant teachers with the one exception of their work with boys of West Indian origin. When working with these boys both highly tolerant and highly intolerant teachers gave a very similar order of priority to their use of the ten modes of teaching although at very different levels of incidence (p. 183). To their other pupils highly intolerant teachers make positive responses only rarely, give little opportunity for pupils to initiate contributions, spend a lot of time asking questions and using authoritarian comment. This contrasts with the teachers who were ethnically highly tolerant: they spent considerable time making positive responses and allowing their pupils to make contributions with only minimal time spent asking questions and making authoritarian comment (p. 192). The mean level of self-concept of all children was significantly lower in classes taught by highly intolerant teachers than that of all children taught by highly tolerant teachers (p. 332). Boys and girls of European, Asian and West Indian origins in the sample appear to have received different styles of teaching from highly tolerant and highly intolerant teachers who gave different emphases to certain modes of teaching some of which may be associated with the level of the children's self-concept.

Ethnocentrism, however, is not manifested in isolation but is expressed within an educational environment which, the study suggests, may be conditioned by the attitudes teachers hold about education. Possible associations between these attitudes, different styles of teaching and the level of the pupils' self-concepts were investigated (p. 200) using the attitude dimensions of tender-toughmindedness, radicalism-conservatism and idealism-naturalism. The dominant attitudes towards education amongst teachers in the sample appear to be radicalism, idealism and toughmindedness

the last two of which seem to be associated with low levels of self-concept in girls of Asian origin and in boys of West Indian origin (p. 204).

The teaching of tenderminded teachers seems as though it may be associated with an enhanced level of self-concept of boys of West Indian and girls of Asian origins the latter also appearing to gain support from naturalistic teachers. Boys of European origin in the classes of those teachers of all types of attitudes towards education, except tendermindedness, recorded significantly higher levels of self-concept than boys of West Indian origin whose low level of self-concept appears to be associated with negative responses from their teachers coupled with excessive authoritarian comment (p. 219). There appears to be a tendency for the attitudes which teachers hold about education to foster, "through the teaching styles generated by them, an educational environment which, in some cases, may be associated with the self-concept level of certain children in multi-ethnic classes and within which the expression of varying degrees of ethnocentrism takes place" (p. 219).

Speculatively it seems that the teachers' work in the multi-ethnic classroom may be influenced by their sex, their level of ethnocentrism and the types of attitudes they hold about education and that these characteristics may tend to influence the emphasis of different forms, modes, patterns and styles of teaching with pupils of different ethnic groups. It seems likely that boys and girls of the different ethnic origins identified for this study, even when they are taught in the same class by the same teacher, may receive different educational experiences than those of other pupils of different sex and ethnic origins. It may, of course, be appropriate that they should do so but, given the complexity of the teaching activity, especially in the multi-ethnic classroom, teachers are unlikely to be aware of the precise manner in which they teach and are,

presumably, denied any accurate assessment of the influence their work may have on the development of their pupils' self-concepts. If teachers of multi-ethnic classes wish to modify their teaching in order to reduce some of the imbalances which may be present in the use of different teaching modes it would be necessary for individual teachers to unveil their existing patterns of interaction with their pupils and acknowledge areas of inconsistency in their work. To do this consideration would need to be given to the objective evaluation of teaching practices in multi-ethnic classes which, until more sophisticated methods become generally available, would probably require a multi-ethnic classroom interaction analysis of the type employed in this research although it would not, of course, have the advantage of concealed purpose. Nevertheless it would be our contention, based on the experience gained during the field work carried out for this research, that the complexity and stress of teaching would efficiently minimize the effect of any attempted subterfuge or unconscious modification to habitual teaching practices which might take place during periods of observation. Provided authorities are prepared to engage the services of independent, fully trained and proficient observers much useful objective information about teachers' work could become available to them which might otherwise remain camouflaged in the conglomerate of multi-ethnic classroom activity. If such information were then related to the teacher's sex, ethnocentrism and attitudes towards education the use of different modes, patterns and styles of teaching might be modified with the possibility of enhancing the level of self-concept of pupils of differing ethnic origins.

Any modifications made in teaching behaviour would need to take into account those variations which apparently exist in the association between certain modes of teaching used by teachers holding different characteristics and the level of self-concept of pupils of different ethnic

origins. Accepted traditional practices, often based on long-standing assumptions generated before the advent of multi-ethnic education, might be usefully reconsidered in the light of these observations within the multi-ethnic setting. Is it, for example, correct to assume that praise is always a positive reinforcement to the self-concept irrespective of whether that praise, its content and amount, is given to a boy or girl of either European, Asian or West Indian origin by an ethnically highly tolerant or highly intolerant teacher? Evidence from the sample suggests the presence of a slight association between praise and the level of self-concept only when girls of Asian origin were praised by highly intolerant teachers who gave high priority to the use of praise with these girls using only time for the acceptance of their feelings more frequently. They also tended to give praise to these girls in a context of supporting modes using not only the acceptance of their feelings but also making full use of their ideas and contributions more extensively than criticizing them or giving them directives. There is evidence which indicates that the most favourable conditions for girls of Asian origin in which to receive praise are likely to be provided by female teachers holding tenderminded, radical and naturalistic attitudes about education. Such considerations might raise questions for the attention of future research about the use of praise in the multi-ethnic classroom. Is it more valued by, and more value to, girls of Asian origin because, perhaps, they are rarely praised elsewhere? Why do highly intolerant teachers use praise prominently with these girls? To what extent does its effectiveness as a stimulant to the self-concept diminish with greater use in the multi-ethnic class of the highly tolerant teacher (pp. 312 and 313)? Many established practices and much prescriptive thinking about the use of different modes, patterns and styles of teaching may need to be reconsidered in the light of expanding knowledge about multi-ethnic education.

There is a tendency for teachers of differing characteristics to teach in multi-ethnic classes in ways which may be related to the ethnic origin of the pupils with whom they interact at any one time and that certain modes, patterns and styles of teaching are variously associated with the level of the children's self-concept. Unlike St. Paul teachers of multi-ethnic classes are not "made all things to all men" yet the present organisation of most Junior and Middle Schools demand this of those lesser mortals striving to cope with the serious educational complexities of multi-ethnic education. If future research substantiates the tentative and, for reasons discussed earlier (p. 80), necessarily cautious interpretations of our data it may become possible to isolate those teacher characteristics which are likely to produce the most favourable conditions for sustaining and enhancing the level of self-concept in children of different ethnic origins: the identification of those teachers who are most likely to be successful with boys and girls of a given ethnic origin might become feasible. This might open up the possibility of selecting some teachers to specialize in the teaching of boys or girls of one ethnic origin with the advantage that sympathetic use could be made of those modes, patterns and styles of teaching known to support the self-concept of boys or girls of any particular group. Such a proposition implies, of course, the separate teaching of different ethnic groups which, accepting that the self-concept is an influential factor in scholastic achievement which can be enhanced, might be academically beneficial. An innovation of this type might not only have positive advantages gained by the use of teaching appropriate to a particular ethnic group but it could possibly avoid any detrimental effects of that teaching which might only be beneficial to children of other ethnic groups. Uni-ethnic teaching, given by a teacher having the appropriate characteristics for teaching the particular ethnic group, would be able to provide a balanced application of the modes,

patterns and styles of teaching which might be of some benefit to pupils of all ethnic groups. If it is accepted that a positive self-concept is beneficial to learning and if certain teacher characteristics and teaching styles appear to enhance the level of self-concept of boys and girls of particular ethnic groups then some justification for uni-ethnic teaching might be established. There are, of course, other kinds of processes and pressures in multi-ethnic schools which cannot be ignored but with increasing knowledge about multi-ethnic education it seems reasonable to suppose that some benefits might accrue to children of all ethnic origins from even a minimal amount of uni-ethnic teaching within multi-ethnic schools. However, education is more than simply academic advancement and such a change in established practice should only be contemplated after further detailed investigation and then limited in its application.

The multi-ethnic debate has over the years frequently and persistently criticized those responsible for training for failing to provide adequate and appropriate in-service and initial training courses for teachers and prospective teachers. Since there has been little agreement on what was adequate and appropriate little progress has been made with a tendency for the content of courses to rely more on conjecture than on fact. This research draws attention to the apparent necessity for teachers and prospective teachers to be aware of their attitudes about education and to know what effect those attitudes may have on their teaching in the multi-ethnic classroom and the possible association with the level of self-concept in children of different ethnic origins. Since teachers' attitudes towards education appear to influence their teaching, and find some association with the level of their pupils' self-concept, further research needs to consider how teachers' attitudes towards their professional work might be modified to induce those most favourable for the

multi-ethnic classroom. Likewise this research, using the concept of ethnocentrism, reveals the extent to which this phenomenon appeared to relate to the work of the teachers in the sample and its association with the children's level of self-concept. It would seem on the basis of these investigations important for qualified teachers working in multi-ethnic schools, and those training to be such teachers, to be apprised of their personal level of ethnocentrism and ways in which it might be modified. The possible influence of these attitudinal factors ought not to be ignored by teachers in multi-ethnic schools nor by appointing authorities who might be encouraged to take cognizance of the effects of ethnocentrism and its possible influence on teachers' work with children of different ethnic origins. Further research to investigate means with which to make objective evaluations of the teacher's activity in the multi-ethnic classroom would be of value so that teachers new to multi-ethnic teaching could be assisted and assessed in a professional manner by their advisers during periods of orientation. Such periods would be of value to pupils and teachers and would help authorities to be less haphazard in their presently inadequate appointments procedures and would, furthermore, help to advance the quality, and therefore the standing, of multi-ethnic teaching to a position appropriate to its complexity and the special professional skills required for its effective conduct.

This research has revealed the extent to which teachers in the sample with certain characteristics, use different forms, modes, patterns and styles of multi-ethnic teaching and has indicated where some associations may be present between them and the level of self-concept of boys and girls of European, Asian and West Indian origins. This, however, is but a small penetration into the complexities of multi-ethnic teaching and learning and further substantial research is an urgent necessity. One

advantage of a cross-sectional study is its facility to open up other areas of enquiry which can be further developed by potentially useful research. Some interesting results have emerged from a preliminary examination of our data designed to investigate the possible presence of ethnic sequencing during multi-ethnic teaching. By ethnic sequencing we mean the order in which representatives of different ethnic origins are engaged in the interaction which arises from the use of different modes of teaching in any given sequence of interaction. A simple, yet revealing, example of ethnic sequencing has been found in data taken from the interaction analysis of a nature-study lesson in a first-year Junior School multi-ethnic class which was categorised as:

WC	EB	EG	AB	AG	WIB	WIG
4						
	8p					
	2					
					4	
					8n	
4r						
10						
				6		
				8p		
				2		

(p = positive; n = negative; r = repeat)

certain characteristics of which were repeated throughout the twenty-minute lesson. Whenever this teacher began a new question and answer sequence she always directed the question to the whole class and then, without exception, an answer was given spontaneously by a boy or girl of European origin which, when correct, earned a comment of praise. (On those occasions when the response was incorrect the question was repeated to the whole class and the above sequence recommenced).

This procedure was then followed by a question very closely associated to the original but directed to a teacher-selected boy or girl of West Indian origin who had not shown a willingness to respond. When, as in the above example, a wrong response was given the teacher repeated the question to the whole class and then selected, from those indicating a willingness to respond, a boy or girl of Asian origin. This ethnic sequencing was repeated each time this particular teacher conducted question and answer interaction during the lesson analysed. It is notable that a child of European origin always provided spontaneously the first response which was accepted and, if accurate, was praised. If the response was inaccurate they were given the opportunity to correct it with a second voluntary response. A specific child of West Indian origin was then brought compulsorily into the interaction with a question closely associated to the original which, because a response was being sought which expanded that given by the child of European origin, tended to be more difficult to respond to acceptably. When an acceptable response was not forthcoming from the child of West Indian origin the question was then repeated to the whole class, time given in a relaxed atmosphere and a child of Asian origin, who had voluntarily indicated a wish to respond, was directed to do so and received praise for a correct response. It is interesting to note that the class seemed to have an expectation of the ethnic sequencing which took place in this class because spontaneous responses were never made by children of European origin when the second similar question was repeated to the whole class following a negative response from a child of West Indian origin. There is no suggestion that ethnic sequencing was consciously initiated but where it does occur it may have a significant influence on the way the child sees himself as a learner in the multi-ethnic class.

The language content of the lesson from which the above brief example of ethnic sequencing has been extracted was recorded and on analysis was found to contain what might prove to be some interesting distinctions in the language used with boys and girls of different ethnic origins. In the example above, after the boy of West Indian origin had failed to give a satisfactory response, the teacher selected the girl of Asian origin and said to her, "(name) you tell him what the answer should be". The boy's failure was highlighted by the teacher and reinforced by a correct response from the girl of Asian origin selected from those offering to respond to the repeated question. Frequent repetition of this type of language and its implications, coupled with ethnic distinctions, may have a significant effect on the development of the self-concept of pupils of all ethnic origins in the context of the multi-ethnic classroom. Content analysis of the language of interaction in the multi-ethnic classroom could be an important area of research and might provide a useful concomitant to that proposed into ethnic sequencing and also this present research.

That there is no lucid, all-embracing explanation of, or solution to, under-achievement in the multi-ethnic classroom seems to be axiomatic especially since the range of factors involved is unknown and makes elusive any simple aetiology of the macroproblem. One task of the researcher in this field is to identify those elements which remain relatively unexamined and which, perhaps, have been influential in our understanding of teaching and learning processes in more conventional settings. Analytical observation of classroom interaction has, in recent years, advanced our understanding of the teacher's work in more traditional classrooms which, by its nature, tends to be exercised in some obscurity. It is within this obscurity that any influence, which previous extensive studies suggest that adults can have on the development of the child's self-concept, takes place

whilst, as many studies predict, the level of the child's self-concept may affect learning. This present study has attempted to lift the veil of obscurity, albeit very slightly, to expose something of the teachers' influence on the self-concept of pupils of different ethnic origins by describing what was observed, analysing what was recorded, assessing what was revealed and interpreting what was compared and contrasted. We conclude that boys and girls of different ethnic origins taught in the same multi-ethnic classroom by the same teacher are likely to receive different educational experiences some elements of which may be associated with the pupils' levels of self-concept and which appear to be differentially related to the teacher's sex, the types of attitudes held about education and, when present, extreme levels of ethnocentrism. The extent to which the findings may be applied to the population is likely to remain unknown until the results of further research in this area become available. Bearing in mind that we investigated what obtained and that correlation is not causality the findings must be interpreted with caution, assessed with discretion and ascribed with prudence since any future patterns cannot, with confidence, be predicted.

Such a restrained approach may inhibit the drawing of inferences from the study but in such a sensitive field as multi-ethnic education such caution would not be inappropriate especially when such inferences might be used as a basis for the formulation of policy. However, caution does not imply any necessity for an infecund inertia but signifies the exercise of activity with particular care and attention so, with vigilance, some of the conspicuously large imbalances revealed in the use of certain teaching modes, the wider disparities in teaching profiles and styles and the stronger associations identified with self-concept levels could stimulate further debate, research and experimentation which might then result in the

modification of present teaching practices and the development of a greater sensitivity in teacher and pupil interactions in multi-ethnic classrooms.

For the teacher in the multi-ethnic classroom a sensitive and discerning assessment of the way in which the exercise of their teaching skills may affect their pupils of different ethnic origins would seem to be a necessary accompaniment to the professional judgements and expediential discriminations which their responsibilities impose upon them. Failure to modify previous practices and to overlook the necessity to acquire new skills in the light of new discoveries is to ignore the advantages, to both teacher and pupil, of an expanding corpus of knowledge and experience which supports the educational practitioner as he bears the heavy responsibility of constantly influencing the development of the self-concept of pupils of different ethnic origins: underachievement is a mutual failing.

APPENDICES

NOTE:

The figures of immigrant pupils given in Appendices 1, 2 and 3 relate to:

- 1) children born outside the British Isles who have come to this country with, or to join, parents or guardians whose countries of origin were abroad; and
- 2) children born in the United Kingdom to parents whose countries of origin were abroad and who came to the United Kingdom on or after 1st January ten years before the collection of the information.

The tables exclude children of mixed immigrant and non-immigrant parentage and children from the Republic of Ireland.

Children of immigrant parents from two overseas countries have been classified according to the country of origin of the father<sup>(1)</sup>.

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1.

Statistics of Education: (Schools).  
H.M.S.O. Vol. 1., 1972. p.xv. section 36.

APPENDIX 1

Numbers of immigrant children in maintained Primary  
and Secondary Schools in England and Wales during the  
period 1966 to 1972.

YEAR JAN.	PRIMARY SCHOOLS	SECONDARY SCHOOLS	TOTALS	% of all pupils
1966	99,160	48,840	148,000	2.1
1967	123,131	60,645	183,776	2.5
1968	145,371	74,841	220,212	2.9
1969	164,892	84,772	249,664	3.2
1970	174,903	88,807	263,710	3.3
1971	176,776	93,969	270,745	3.3
1972	178,466	101,406	279,872	3.3

(Compiled from Statistics of Education, H.M.S.O. Vol.1; 1966 (p. 74 of 1969)

1967 p. 55

1968 p. 70

1969 pp.73 and 75

1970 pp.63 and 65

1971 pp.65 and 67

1972 pp.67 and 69)

No figures are officially recorded before 1966 or after 1972.

APPENDIX 2

Numbers of children of West Indian (including Guyana)  
descent in maintained Primary and Secondary Schools in  
England and Wales during the period 1966 to 1972.

YEAR JAN.	BOYS	GIRLS	TOTALS	% of all immigrant pupils
1966*	27,330	29,887	57,217	43.7
1967*	35,147	38,458	73,605	44.7
1968*	43,203	46,785	89,988	44.8
1969	51,126	55,000	106,126	42.5
1970	53,255	56,708	109,963	41.7
1971	52,064	55,072	107,136	39.6
1972	49,410	52,488	101,898	36.4

\*The 1966, 1967 and 1968 figures in the above table exclude those children of Indian and Pakistani descent in schools where there were less than ten immigrant pupils.

(Compiled from Statistics of Education, H.M.S.O. Vol.1; 1966 p. 63

1967 pp.61 & 63

1968 pp.75 & 77

1969 pp.73 & 75

1970 pp.63 & 65

1971 pp.65 & 67

1972 pp.67 & 69)

No figures are officially recorded before 1966 or after 1972.

APPENDIX 3

Numbers of children of Indian and Pakistani descent  
in maintained Primary and Secondary Schools in England  
and Wales during the period 1966 to 1972.

YEAR JAN.	BOYS	GIRLS	TOTALS	% of all immigrant pupils
1966*	18,966	13,209	32,175	24.6
1967*	26,743	18,241	44,984	27.3
1968*	35,690	23,713	59,403	29.6
1969	41,494	28,536	70,030	28.0
1970	44,937	31,701	76,638	29.0
1971	47,414	34,637	82,051	30.3
1972	49,672	37,150	86,822	31.0

\*The 1966, 1967 and 1968 figures in the above table exclude those children of Indian and Pakistani descent in schools where there were less than ten immigrant pupils.

(Compiled from Statistics of Education, H.M.S.O. Vol.1; 1966 p. 63

1967 pp.61 & 63

1968 pp.75 & 77

1969 pp.73 & 75

1970 pp.63 & 65

1971 pp.65 & 67

1972 pp.67 & 69)

No figures are officially recorded before 1966 or after 1972.



**APPENDIX 5: A British Ethnocentrism Scale (Revised for use with school teachers)**

CONFIDENTIAL

You are invited to respond to the statements on social and educational topics which are listed below. As the questions are matters of opinion, there are no 'right' or 'wrong' answers. Please choose the response you prefer from the alternatives listed on the right-hand side of the paper; indicate your choice by placing an 'x' in the appropriate box. Please give your own frank opinion to every statement. There is no time limit, but you are advised not to spend a long time considering each statement. Space is available overleaf for any additional comment you may wish to make. Thank you for your co-operation.

		Very strongly agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Very strongly disagree
1.	Children do not need someone to set limits for their behaviour.							
2.	There is much to be said for the rites and customs within the Roman Catholic Church.							
3.	The age for starting school should be flexible so that it suits the intellectual development of the child.							
4.	Sex offenders should not be punished but treated with kindness and sympathy by qualified psychiatrists.							
5.	Communists should be carefully watched and strong action taken against any suspicious activities observed.							
6.	A predominance of interdisciplinary studies is unlikely to lead to a better quality of learning in schools.							
7.	The state should give students more generous financial help and support.							
8.	Even though people of all sorts mix together nowadays one should not have to worry very much about catching an infection or disease.							
9.	All subjects in the school curriculum should be available to both boys and girls.							
10.	Parents ought to make a direct financial contribution towards the cost of educating their children.							
11.	The state should provide more special teaching for gifted children.							
12.	The development of creativity in children is crucial to society.							
13.	It is an urgent necessity to disassociate the education service from political influence.							
14.	There is very little discipline in today's youth.							
15.	All school work ought to be closely related to the child's immediate environment.							
16.	Much of the learning which takes place in the classroom occurs in spite of the teacher rather than because of the teacher.							
17.	As the rate of development varies from child to child, there is an inevitable futility in mass education.							
18.	It is right that capital punishment has been abolished.							
19.	One big trouble with <u>Indians</u> is that they are never contented but always try for the best jobs and the most money.							
20.	<u>Coloured people</u> should not be segregated from whites in schools, jobs and housing estates.							

continued.....

## APPENDIX 5 (Continued)

-2-

		Very strongly agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Very strongly disagree
21.	<u>Teenage gangs</u> demonstrate that inferior groups when given too much money and freedom just misuse their privileges and create disturbances.							
22.	There is something primitive and uncivilized in the <u>West Indian</u> , as shown in his music and extreme aggressiveness.							
23.	Chronological age should not be used as the sole criterion for grouping children into classes.							
24.	Traditional and popular theories of learning are not helpful to the classroom teacher.							
25.	The teaching profession should determine the content of the curriculum.							
26.	The development of a positive self-image is of crucial importance in the learning process and should be a major concern of the teacher.							
27.	Group learning produces better social attitudes than individual learning.							
28.	Teaching methods in school should emphasize co-operation rather than competition between children.							
29.	Negroes would most likely become officious, overbearing and disagreeable if not kept in their place.							
30.	It is probably true to say that one fault of the Jews is their conceited idea that they are a chosen race.							
31.	Many advantages would accrue if parents were given more encouragement to work voluntarily in schools.							
32.	We should do <u>even</u> more to limit immigration in order to give British workers more jobs.							
33.	Homosexuals are not criminals and should never be treated as such.							
34.	The teacher is the most important person in the educative process.							
35.	Districts containing many <u>coloured immigrants</u> are hardly ever as dirty as many people make out.							
36.	Due mainly to the innate dirtiness, laziness and general backwardness of most of the Irish, Ireland can never advance to the standard of living and civilization of England.							
37.	The teacher is the most important stimulator of motivation in the classroom.							
38.	It would probably be a mistake to have <u>coloured people</u> for foremen and leaders over whites.							

continued.....

## APPENDIX 5 (Continued)

-3-

		Very strongly agree	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Very strongly disagree
39.	Large schools multiply large problems.							
40.	It is very likely that British trade and industry has improved because of the increase of foreign skill in factories and other work places.							
41.	All students training for teaching should undertake an extensive period of work in industry or commerce before commencing work in schools.							
42.	It does seem that we are spending rather too much money for the pampering of criminals.							
43.	The gap between educational theory and practice is a serious handicap to children's learning.							
44.	In the last few years teenagers have shown that they are being given too much independence and too much money.							
45.	Children should not be taught to value the role of industry and commerce in earning and maintaining the nation's standard of living.							
46.	The Irish are perfectly capable of skilled and responsible work and should certainly not be restricted to manual and menial jobs.							
47.	It is not wrong for <u>black</u> and white people to intermarry.							
48.	On the whole Negroes are a responsible, hardworking race.							

It is not necessary to add to the responses you have given, but if you wish to do so, please use the space overleaf.

(Words underlined in red indicate changes to the original scale).

APPENDIX 6

Rank order of e-scores obtained from a sample of 70 schoolteachers:

x and y - scores of equivalent halves;

n and p - scores of negative and positive items.

HIGHLY INTOLERANT GROUP:

code	x	y	n	p	e-score	sex	age	yrs. teach. experience	multi-ethnic experience	attitudes towards education		
B13	64	58	60	62	122	M	34	7	7	Tgh	R	I
B15	60	56	56	60	116	M	58	27	8	Tgh	R	I
E47	58	51	47	62	109	F	31	9	7	Tgh	C	I
B16	56	52	46	62	108	M	51	24	7	Ten	C	I
F60	54	52	52	54	106	F	34	10	6	Tgh	R	I
E49	55	49	45	59	104	F	48	20	10	Tgh	C	I
E52	53	51	54	50	104	M	43	20	9	Ten	R	N
E54	56	48	53	51	104	M	28	1	1	Tgh	R	I
E57	55	49	45	59	104	F	56	21	3	Tgh	C	I
F62	56	47	43	60	103	F	55	28	15	Tgh	C	N
E48	56	47	51	52	103	M	49	24	15	Tgh	C	I
E50	54	47	48	53	101	M	41	15	6	Tgh	C	I

INTOLERANT GROUP:

F66	51	48	48	51	99	F	35	12	10	Tgh	C	I
D45	55	43	49	49	98	M	58	32	7	Tgh	C	I
E46	52	46	43	55	98	F	31	8	3	Tgh	R	I
D39	53	45	48	50	98	F	28	3	3	Tgh	R	I
F70	53	45	48	50	98	F	27	6	5	Tgh	R	I
F63	55	41	47	49	96	F	27	5	5	Tgh	C	I
B17	53	43	42	54	96	F	39	13	8	Tgh	R	N
B18	52	44	49	47	96	F	32	10	10	Tgh	R	I
C30	44	52	51	45	96	F	26	4	4	Tgh	R	I
B19	49	46	50	45	95	M	51	8	5	Tgh	R	N
B20	50	45	45	50	95	F	42	22	20	Tgh	R	I
A2	54	40	42	52	94	F	37	14	12	Tgh	R	I
B21	52	42	49	45	94	M	25	4	1	Tgh	C	N

Continued.....

## (Appendix 6: continued)

code	x	y	n	p	e- score	sex	age	yrs. teach. experience	multi-ethnic experience	attitudes towards education		
C31	51	43	57	37	94	F	25	3	3	Tgh	R	I
D44	50	43	43	50	93	M	36	14	4	Tgh	R	I
D35	54	38	40	52	92	F	26	5	3	Ten	C	I
F67	48	44	45	47	92	M	25	3	3	Ten	R	I
F68	51	41	45	47	92	M	40	14	7	Ten	C	I
F53	51	39	42	48	90	F	53	10	6	Tgh	R	I
C25	46	44	44	46	90	F	25	1	1	Tgh	C	I
F59	46	43	44	45	89	M	50	17	2	Ten	R	I
A7	52	37	47	42	89	F	32	4	4	Tgh	R	N
A8	49	39	46	42	88	M	39	18	1	Ten	R	I

TOLERANT GROUP:

B22	44	43	39	48	87	F	42	2	2	Tgh	R	N
C27	45	42	45	42	87	M	26	4	4	Ten	R	N
C28	42	45	42	45	87	F	50	18	4	Tgh	C	I
F55	45	42	41	46	87	F	37	7	3	Tgh	R	I
A5	48	38	41	45	86	F	33	12	12	Ten	R	I
F64	46	40	44	42	86	M	55	31	10	Ten	R	I
C32	44	41	48	37	85	M	36	3	3	Tgh	R	I
F56	50	35	38	47	85	F	39	12	12	Tgh	R	N
D36	43	41	41	43	84	M	32	11	2	Ten	R	N
D37	50	34	39	45	84	F	26	1	1	Tgh	R	N
D41	34	50	34	50	84	M	23	2	2	Ten	R	I
A9	39	44	38	45	83	F	24	1	1	Tgh	R	N
F58	43	40	38	45	83	F	44	24	4	Ten	R	N
F69	46	36	38	44	82	F	47	7	1	Tgh	R	I
B11	42	39	42	39	81	F	34	1	1	Tgh	R	I
A4	40	40	41	39	80	F	30	4	1	Tgh	R	I
B14	41	39	39	41	80	F	39	3	1	Tgh	R	N
C33	43	37	43	37	80	M	30	4	4	Ten	R	N
D38	43	37	41	39	80	F	40	10	4	Tgh	R	I
D43	42	37	38	41	79	F	24	3	3	Tgh	R	I
C34	42	36	35	43	78	F	28	3	3	Tgh	C	I

Continued.....

(Appendix 6; continued)

code	x	y	n	p	e-score	sex	age	yrs. teach. experience	multi-ethnic experience	attitudes towards education		
A1	40	34	38	36	74	M	41	14	11	Ten	R	N
F65	38	36	37	37	74	M	44	16	8	Tgh	R	I

HIGHLY TOLERANT GROUP:

A3	37	36	37	36	73	M	25	2	2	Ten	R	N
C26	42	31	33	40	73	F	28	2	2	Tgh	R	I
D40	40	33	35	38	73	F	39	14	13	Ten	R	N
C24	38	31	34	35	69	M	33	7	2	Tgh	R	I
A6	38	30	34	34	68	F	23	3	2	Ten	C	N
F61	35	30	40	25	65	M	27	5	3	Ten	R	N
D42	33	31	35	29	64	F	29	8	2	Tgh	R	N
B10	33	30	32	31	63	M	28	8	1	Ten	R	N
C29	27	26	28	25	53	F	28	2	1	Tgh	R	I
B12	27	23	25	25	50	F	31	5	5	Tgh	R	N
C23	25	23	29	19	48	M	30	6	6	Ten	R	N
E51	29	19	23	25	48	F	30	8	8	Tgh	R	N

$\bar{x}$	46.31	40.67	42.41	44.57	86.99	M 28 F 42	37.8 34.6	9.99	5.21	Toughm/d 49 Tenderm/d 21 Radical. 53 Conserve. 17 Natural. 25 Idealism 45
$\sigma$	1.83	7.69	7.17	9.39	15.03		9.74	7.98	4.09	
N = 70										

## SURVEY OF OPINIONS ABOUT EDUCATION

Constructed by R. A. C. Oliver, University of Manchester

You are invited to give your opinions about a number of educational questions which are set out in the following pages. As the questions are matters of opinion, there are no "right" or "wrong" answers: you will be asked to choose the answer you prefer from a number of alternatives. Please answer every question. There is no time limit, but you are advised not to spend a long time considering each question. Space is available on the back of the answer-sheet for you to use if you want to add anything to the answers you have given.

Please give your own frank opinion. Answer on the answer-sheet only after writing your name etc. on it.

### PART I

A number of debatable opinions about education are expressed in the following statements. You are asked to indicate whether on the whole you agree or disagree with each of these opinions. Five alternative answers are suggested—STRONGLY AGREE, AGREE, NO OPINION, DISAGREE, STRONGLY DISAGREE, and on the answer-sheet there are five boxes corresponding to these answers for each question. Please indicate your own attitude by placing an X in the appropriate box on the answer-sheet. Be sure to indicate in one of these five ways your opinion about each of these statements. Should you wish to qualify the answers you have given, you will find a space in which you may write on the back of the answer-sheet.

1. The time to begin reading lessons is when the children feel the need for them.
2. Direct moral instruction does little to improve children's characters.
3. History should make children familiar with the great figures of the past.
4. Schools should teach Social Studies rather than History or Geography.
5. Naturalness is more important than good manners in children.
6. Character training is impossible if there is no final standard of right or wrong.
7. You cannot expect children to write good English unless they have a good foundation in grammar.
8. The teacher should not stand in the way of a child's efforts to learn in his own fashion.

### PART II

You are asked to give your opinion about a number of changes in education which have been suggested. You will probably feel that some of the changes would be desirable and that others would be undesirable. Some you may not feel able to express an opinion about one way or the other. Five alternative answers are offered: VERY DESIRABLE, RATHER DESIRABLE, NO OPINION, RATHER UNDESIRABLE and VERY UNDESIRABLE, and for each question five corresponding boxes are provided on the answer-sheet. Please consider each of the changes mentioned, and indicate your opinion of it by placing an X in the appropriate box on the answer-sheet. Please be sure to indicate in one of these five ways your opinion about each of the changes mentioned. Should you wish to qualify the answers you have given, you will find space in which you may write on the back of the answer-sheet.

1. Fewer free school meals.
2. The raising of the school leaving age <sup>beyond</sup> ~~to~~ 16.
3. More education for international understanding.
4. Increased expenditure on adult education.
5. School courses in parenthood.
6. Bigger allowances for play material in primary schools.
7. Comprehensive schools to be the normal form of secondary education.
8. More nursery schools.
9. A higher proportion of the national income to be spent on education.
10. Smaller classes in the primary school.
11. Less corporal punishment in schools.

### PART III

Below are four reasons which might be given for the teaching of English Language in schools. You may feel that better reasons than any of these might be given but please consider only the four reasons given here. Some of these you may feel are better than others. Some you may feel are not good at all. Five alternative opinions about each of the reasons are given—VERY GOOD, GOOD, FAIRLY GOOD, NO OPINION and NOT GOOD. Corresponding boxes are provided on the answer-sheet. Note that the five possible ways of expressing your opinion are not exactly the same as in PARTS I and II.

1. *Reasons for the teaching of English Language in schools:*
  - (a) It helps children to express themselves with freedom and fluency.
  - (b) It cultivates enjoyment in the use of language.
  - (c) A person who uses English incorrectly is handicapped in his career.
  - (d) Children must acquire proficiency in spelling, punctuation and grammar.

**APPENDIX 7:**  
**(Continued)**

When you have indicated your opinion about the reasons for teaching English Language in schools, you will find various reasons which might be given for teaching other subjects stated below. Please indicate in a similar way what you feel about each of the reasons given.

2. *Reasons for teaching science:*

- (a) The child's sense of wonder is a good starting-point for the development of his interests.
- (b) The progress of industry demands workers equipped with scientific techniques.
- (c) The study of science is satisfying to one's intellectual curiosity.
- (d) A scientific training offers good prospects for a career.

3. *Education for international understanding* may be approached in the following four ways. Please indicate as before how good you feel each to be.

- (a) Respect for one's own country is the best foundation for one's attitude to other countries.
- (b) A study of international affairs should show which countries are our friends.
- (c) Contact between the people of different countries makes them feel they are alike at heart.
- (d) Knowledge of the achievements of other countries engenders respect for them.

4. *Reasons for Religious Instruction:*

- (a) It develops a sense of spiritual values.
- (b) The knowledge of a loving God meets a deep-felt need in children.
- (c) It instils a sense of duty.
- (d) It helps to keep children from wrong-doing.

5. *Reasons for excluding propaganda from schools:*

- (a) It is better to aim at sound knowledge and a fair-minded attitude.
- (b) Pupils should be free to form their own opinions.
- (c) Propaganda might get into the wrong hands.
- (d) Instruction in one's duties to the state should come later.

6. *The problem of comics.* It is often said that some comics are harmful to children, and a number of ways of dealing with the problem have been suggested. Assume that some comics may be harmful, and indicate as before how good you feel each of these suggestions to be.

- (a) Parents should not allow their children to read such comics.
- (b) Try to cultivate interest in other kinds of reading matter.
- (c) The sale of harmful comics should be prohibited.
- (d) See that children can get the better comics.

7. *Reasons for the training of teachers:*

- (a) A teacher must acquire efficient techniques of teaching his subject.
- (b) A teacher must know how to control children.
- (c) A teacher must learn to understand children's needs.
- (d) A teacher must understand how to develop children's interest in their studies.

8. *Corporal punishment.* The majority of teachers are not in favour of the prohibition of corporal punishment in schools. Here are some of the arguments in favour of its retention. Indicate as before how good you feel each of these particular arguments to be.

- (a) Some children will not respond to any other form of discipline.
- (b) No other type of punishment is over so quickly or leaves so little resentment.
- (c) Corporal punishment is an emergency measure to be followed by more constructive treatment.
- (d) The attitude of society to corporal punishment can only be altered gradually.

9. *Reasons justifying the cost of special schools.* It costs much more to educate handicapped children, such as the educationally sub-normal, in special schools than it does to educate normal children in ordinary schools. Here are some of the reasons why the cost of special schools is thought to be justified. Indicate as before how good you feel each of these reasons to be.

- (a) It is only fair that a child unfortunate enough to suffer from a handicap should be compensated by special educational treatment.
- (b) Handicapped children, like other children, should have the education their individual needs require.
- (c) Handicapped children can be very troublesome in ordinary schools.
- (d) The training provided may prevent the handicapped from becoming a charge upon society later.

10. *Some arguments in favour of secondary technical education* have been as follows. Please indicate as before how good you feel each of these arguments to be.

- (a) A technical school training gives a boy or girl a good start in the competition for jobs.
- (b) With some children the best approach to general education is through their technical interests.
- (c) Technical education is a good investment for an industrial country.
- (d) His future work is naturally one of the main interests of an adolescent.

If you wish to add to the answers you have given, please use the space provided on the back of the answer-sheet.

**APPENDIX 8:**

**SURVEY OF OPINIONS ABOUT EDUCATION — ANSWER SHEET**

(It is understood that the short answers do not fully express your views. It is not necessary to add to the answers you have given, but if you wish to do so, please use the space below)

NAME \_\_\_\_\_ SEX \_\_\_\_\_ AGE \_\_\_\_\_ DATE \_\_\_\_\_

1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_

PART I		PART II		PART III	
1	Strongly agree	Very desirable	1a	Very good	1a
	Agree	Rather desirable	b	Good	b
	No opinion	No opinion	c	Fairly good	c
	Disagree	Rather undesirable	d	Good	d
	Strongly disagree	Very undesirable	2a	Fairly good	10a
2			b	No opinion	b
3			c	No opinion	c
4			d	Not good	d
5			3a	Very good	7a
6			b	Good	b
7			c	Fairly good	c
8			d	No opinion	d
9			4a	Very good	8a
10			b	Good	b
11			c	Fairly good	c
			d	No opinion	d

	F	J
T		
R		
Z		

APPENDIX 9Likert scores of the 'Survey of Opinions About Education'

Subject	Tough-tender mindedness	Conservatism- radicalism	Idealism- naturalism
A1	49	41	33
A2	30	42	24
A3	45	48	35
A4	40	38	26
A5	54	41	30
A6	51	34	33
A7	40	44	37
A8	47	45	26
A9	39	45	34
B10	51	46	35
B11	27	37	26
B12	37	48	36
B13	37	40	20
B14	40	47	37
B15	29	37	24
B16	44	36	26
B17	42	50	33
B18	39	41	23
B19	41	43	36
B20	23	43	20
B21	42	32	34
B22	37	49	35
C23	45	50	39
C24	17	41	21
C25	34	14	26
C26	24	42	28
C27	59	40	38
C28	32	36	21
C29	28	42	23
C30	30	39	25
C31	36	37	28
C32	37	48	24

Continued.....

## (APPENDIX 9: continued)

Subject	Tough-tender mindedness	Conservatism- radicalism	Idealism- naturalism
G33	50	44	38
G34	38	35	24
D35	43	33	25
D36	57	46	33
D37	30	47	33
D38	35	39	28
D39	36	40	30
D40	50	54	35
D41	43	49	28
D42	40	46	32
D43	33	55	26
D44	30	43	22
D45	31	31	25
E46	24	41	26
E47	34	30	26
E48	37	32	25
E49	24	36	24
E50	17	32	14
E51	35	46	35
E52	43	43	31
E53	41	52	28
E54	30	45	28
E55	35	40	27
E56	34	40	34
E57	27	32	25
E58	47	44	38
E59	48	41	29
F60	35	38	17
F61	47	45	33
F62	39	31	32
F63	32	36	21
F64	48	39	28
F65	30	48	30
F66	39	33	29

Continued.....

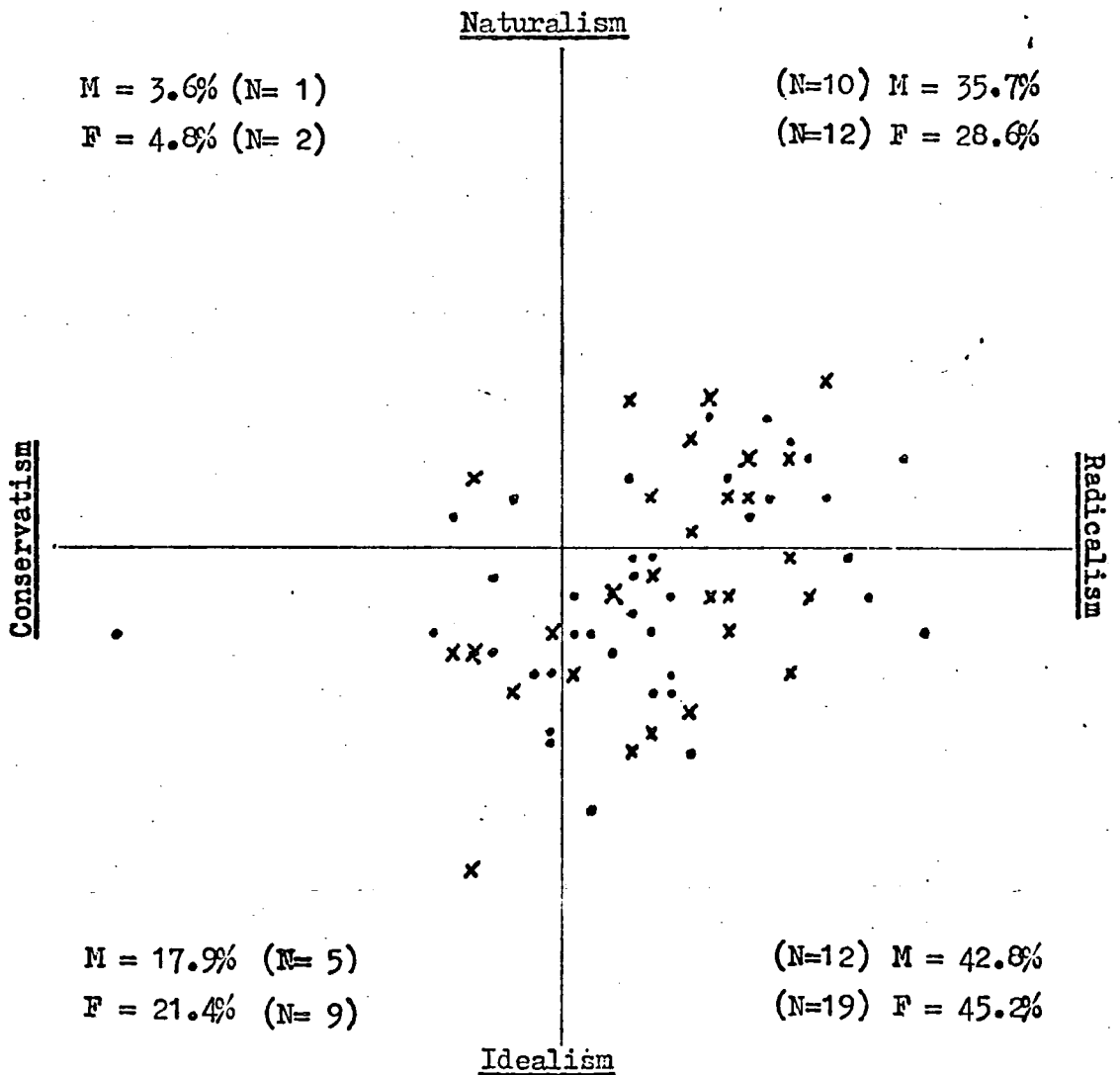
(APPENDIX 9:continued)

Subject	Tough-tender mindedness	Conservatism- radicalism	Idealism- naturalism
F67	44	44	28
F68	45	34	23
F69	31	51	30
F70	26	40	29

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APPENDIX 10

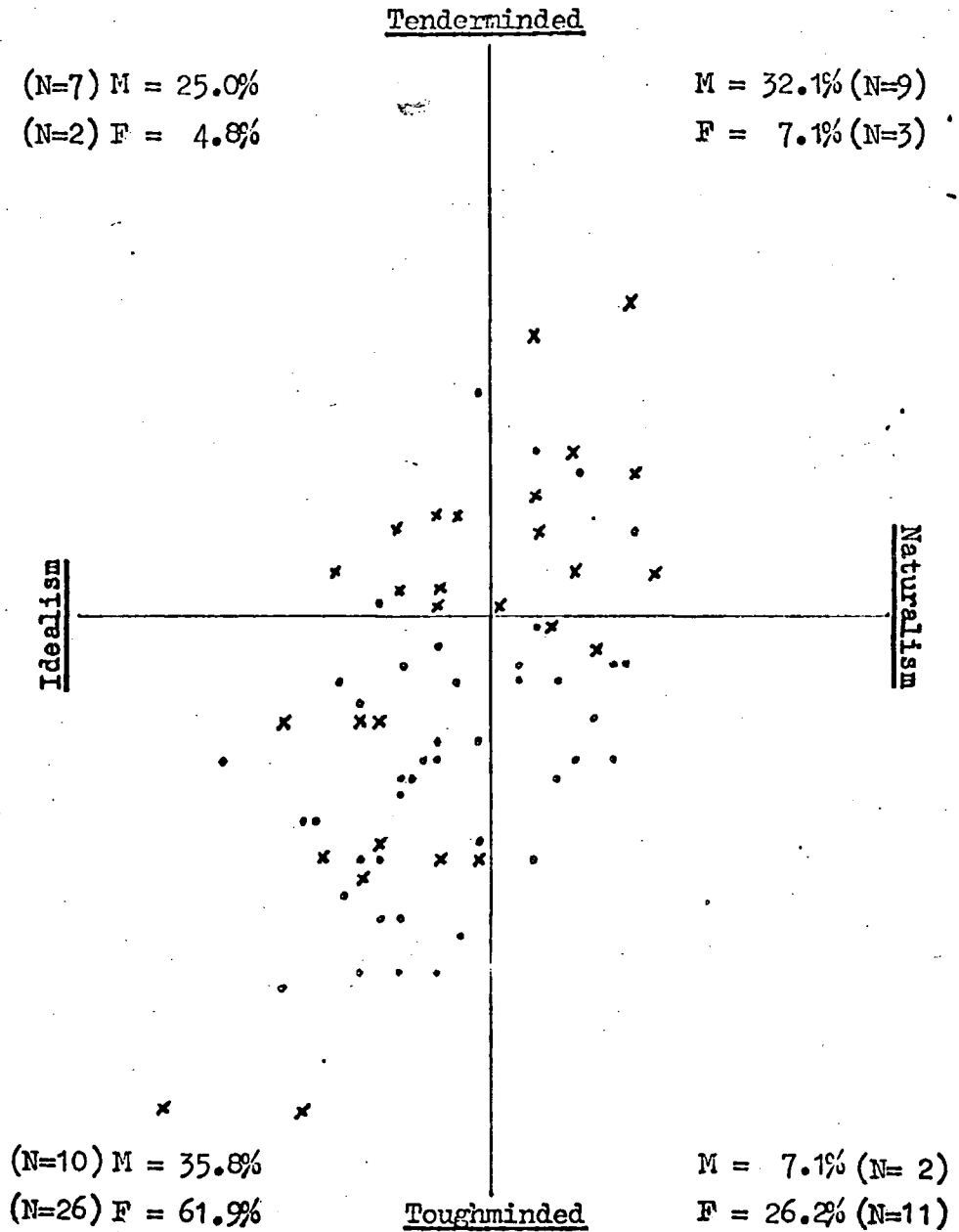
The co-ordination of the distribution of the sample of teachers along the dimensions of idealism-naturalism and conservatism-radicalism.



Subjects in the sample hold predominantly radical views about education with a strong tendency towards idealism: ( x = males: • = females).

APPENDIX 11

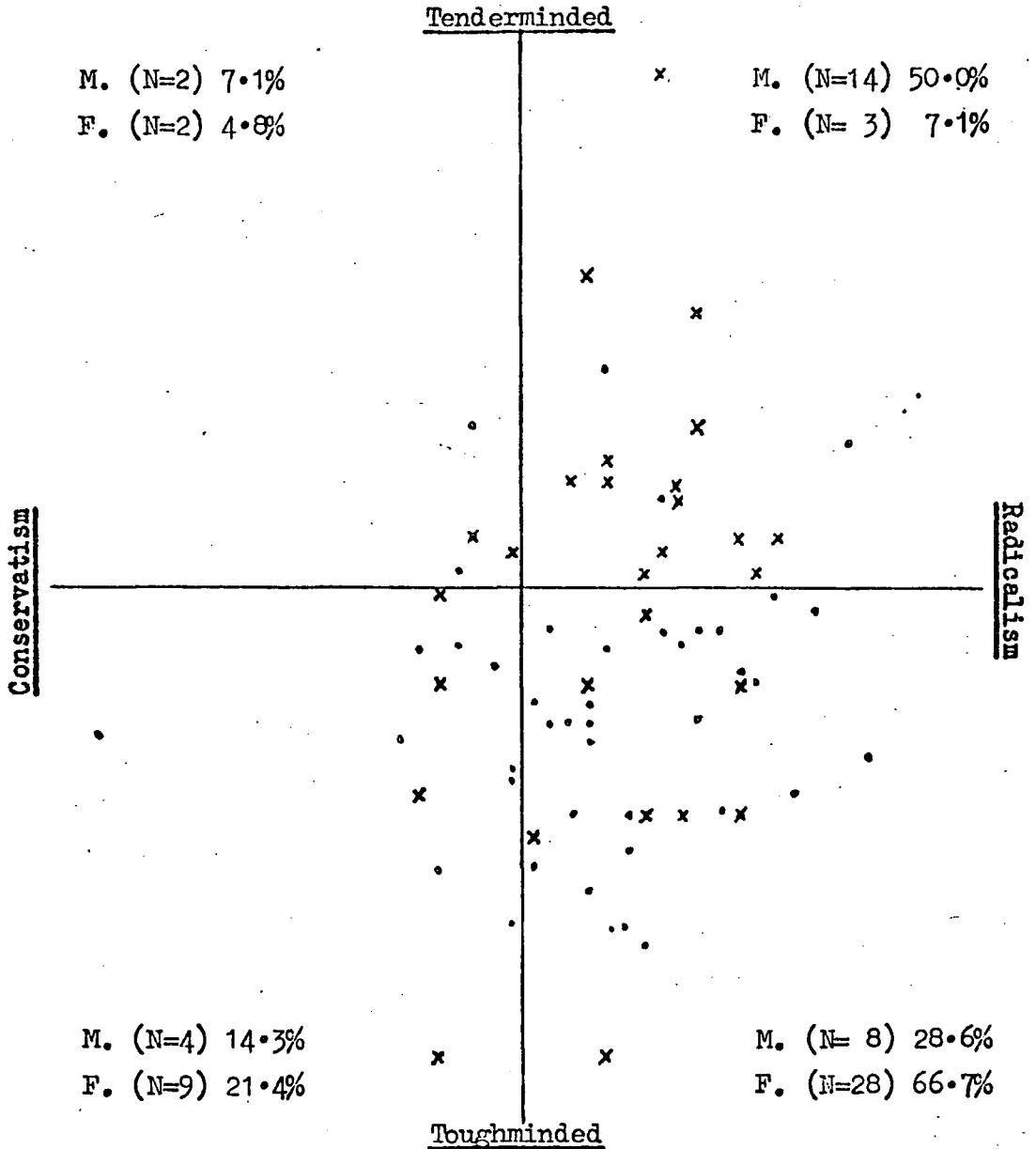
The co-ordination of the distribution of the sample of teachers along the dimensions of tough-tendermindedness and idealism-naturalism.



This co-ordination illustrates that the majority of women subjects in the sample are toughminded-idealists. Men subjects, with two extreme exceptions, are inclined towards tendermindedness: ( x = males; . = females).

APPENDIX 12:

The co-ordination of the distribution of the sample of teachers along the dimensions of tough-tendermindedness and radicalism-conservatism.



The sample strongly displays radical opinions with men inclined towards tendermindedness and women inclined towards toughmindedness: ( x = men; • = women).

APPENDIX 13The Bledsoe<sup>(1)</sup> Self-Concept Scale: (Revised).

Introduction: "We are going to spend a short time thinking about ourselves: thinking about what we are like. To help you I shall read out some short sentences. If you think that what I say describes yourself then put a tick (blackboard demonstration) next to the number of the sentence. If what I say does not describe yourself put a cross (blackboard demonstration) next to the number of the sentence on your paper. Remember you are going to describe yourself as you think you are. There are no right or wrong answers because we are all different from each other. Answer according to your feelings: give your own honest answers. I shall be the only person to know what you say about yourself. Let's begin...."

## Number

- |    |  |  |
|----|--|--|
| 1. | I am friendly  | (Remember to put a tick if that describes you or a cross if it does not) |
| 2. | I am obedient<br>(I keep rules - I do as I'm told)                 |  |
| 3. | I am honest  |  |
| 4. | I am thoughtful  |  |
| 5. | I am brave   | (Does that describe what you think you are?)                             |
| 6. | I am careful   |  |
| 7. | I am fair<br>(I do not cheat)                                      |  |
| 8. | I am mean<br>(I do not share my things - I keep things for myself) |  |

Continued.....

- 
- |    |              |   |
|----|--------------|---|
| 1. | Bledsoe, J., | Self-concepts of children and their intelligence, achievement, interests and anxiety.<br><u>Jnl. of Individual Psychology</u> , 20, 1964, pp.55-58. |
|----|--------------|---|

APPENDIX 13 (continued)

9. I am lazy
10. I am truthful (Is that true of you or not?)
11. I am smart
12. I am polite
13. I am clean
14. I am kind
15. I am selfish (Is that like you or not?)
16. I am helpful
17. I am good
18. I am cooperative  
(I help other people)
19. I am cheerful
20. I am jealous (Does that describe you or not?)
21. I am sincere  
(I really mean what I say and do)
22. I am studious  
(I work hard at my school work)
23. I am loyal  
(I support my friends; I stick up for my school)
24. I am likeable  
(Other people like me)
25. I am a good sport (Is that like you or not like you?)  
(I don't mind losing)
26. I am useful
27. I am dependable  
(People can rely on me; I keep promises)
28. I am bashful  
(I am shy)
29. I am happy
30. I am popular  
(Lots of people like me very much indeed) (Like you or not like you?)<sup>2</sup>

APPENDIX 14The Self-Esteem Inventory<sup>(1,2)</sup> (Revised):

"Now I'm going to read you some more sentences. If what I say describes how you usually feel about yourself then put a tick next to the number of the sentence. If what I say does NOT describe how you usually feel put a cross next to the sentence number. Remember that there are no right or wrong answers: a tick means 'yes'; a cross means 'no'.

## Number

- |     |  |   |
|-----|--|---|
| 1.  | I often wish I were someone else.  | (Is that like you or not?)                |
| 2.  | I find it very hard to talk in front of the class.                         |   |
| 3.  | There are lots of things about myself I'd change if I could.               |   |
| 4.  | I can make up my own mind without too much trouble.                        |   |
| 5.  | I get upset easily at home. (I get unhappy at home).                       | (Does that describe how you feel or not?) |
| 6.  | I'm a lot of fun to be with.   |   |
| 7.  | It takes me a long time to get used to anything new.                       |   |
| 8.  | I'm popular with children of my own age. (I am liked by other children).   |   |
| 9.  | Adults (older people) usually consider my feelings.                        |   |
| 10. | I give in very easily.   | (Is that like you or not?)                |
| 11. | Grown-ups expect too much of me.   |   |
| 12. | It's pretty tough to be me. (I find life is hard for me).                  |   |
| 13. | Things are all mixed up in my life. (Everything seems muddled in my life). |   |

Continued.....

- 
- |    |                  |   |
|----|------------------|---|
| 1. | Coopersmith, S., | <u>The Antecedents of Self-esteem.</u><br>W. H. Freeman and Co. 1967, pp.265-6. |
| 2. |                  | <u>Social Relationships (E281),</u><br>The Open University Press, 1972, p.163.  |

APPENDIX 14 (continued)

14. Other children usually follow my ideas.
15. I have a low opinion of myself. (I don't think much of myself). (Does that describe how you feel about yourself or not?)
16. There are times when I would like to leave home.
17. I often feel upset (unhappy) in school.
18. I'm not as nice looking as most people.
19. If I have something to say I usually say it. (I don't usually worry about what I say).
20. Adults (older people) understand me. (Does that describe you or not?)
21. Most other people are better liked than I am.
22. I usually feel as if older people are pushing me around.
23. I often get discouraged (put off) in school.
24. Things usually don't bother me. (I don't worry about things).
25. I can't be depended on. (Other people cannot rely on me; I can't be trusted). (True of you or not?)<sup>n</sup>

APPENDIX 15Self-Concept as a Learner Scale<sup>(1)</sup> (Revised):

"Now we come to the last set of sentences. These sentences, like the others, are to help you describe yourself: answer as if you were describing yourself to yourself. If you want to answer 'yes' put a tick next to the number of the sentence; if you want to answer 'no' put a cross next to the number of the sentence.

## Number

- |     |   |                                  |
|-----|---|----------------------------------|
| 1.  | I am usually keen to go to school.  | (Is that true of you or not?)    |
| 2.  | I never ask teachers to explain something again (a second time).                                |                                  |
| 3.  | I try to change when I know I'm doing things wrong.   |                                  |
| 4.  | I wish I didn't give up as easily as I do.  |                                  |
| 5.  | I get my work done but I don't do any extra.  | (True or not true of you?)       |
| 6.  | I would rather do well than badly in school.  |                                  |
| 7.  | Once in a while I put off until tomorrow what I should do today.                                |                                  |
| 8.  | I become discouraged easily in school. (I give up quickly when things are difficult in school). |                                  |
| 9.  | I give up easily in school work.  |                                  |
| 10. | I do things without being told several times.   | (Does that describe you or not?) |
| 11. | I am satisfied to be just as I am.  |                                  |
| 12. | I like school jobs which give me responsibility. (I like to be in charge of things in school).  |                                  |
| 13. | I like to start work on new things.   |                                  |

Continued.....

1. Waetjen, W.,

(Self-concept as a Learner Scale, University of Maryland, 1963).

Quoted in 'Social Relationships' (E281)

The Open University Press, 1972, pp.165-167.

APPENDIX 15 (continued)

14. I cannot remember directions for doing things. (I find it difficult to remember instructions).
15. I do well when I work alone.
16. I am satisfied with my ability to speak in front of the class. (I talk well in front of the class).
17. I am able to get my work done on time.
18. When I have a choice I have difficulty in choosing.
19. I sometimes use unfair means to do my school work. (I sometimes cheat in my work).
20. I do my fair share of school work. (Tick if that describes you; put a cross if it does not describe you).
21. I give up if I don't understand something.
22. I try to be careful about my work.
23. I get worried when my teacher asks me something in the class lessons.
24. I make mistakes because I don't listen.
25. I do things without thinking. (Is that like you or not?)
26. I have trouble sometimes in deciding what is right and what is wrong.
27. I find it hard to remember things.
28. I think clearly about school work.
29. I can't express my ideas in writing very well. (I find it hard to put my ideas down on paper).
30. I can tell the difference between the important and the unimportant things in a lesson. (True of you or not true of you?)
31. I get poor marks in the tests we have.
32. I change my mind a lot.
33. I feel good about my school work. (I'm satisfied with my work at school).

Continued.....

APPENDIX 15 (continued)

34. I do not understand what goes on sometimes in this class.
35. I am as clever as I want to be. (Remember if that's how you feel about yourself put a tick; if it's NOT put a cross).
36. I can solve problems quite easily.
37. I can work things out for myself.
38. Good marks come easily to me. (I don't have trouble in getting high marks.)
39. I know the answer to a question before the rest of the class.
40. I can usually see the sense in other people's suggestions. (Does that describe your feelings about yourself?)
41. I find it easy to get along with other children in the class.
42. I enjoy being in the class but I don't like taking the lead. (I don't like leading class activities).
43. I take an active part in group work.
44. I try to be fair with other children in the class. (I try not to cheat other children in the class).
45. I try to understand other children's ideas. (Put a tick if you think that describes you; a cross if it doesn't).
46. I think I'm an important person in this class.
47. Other children in the class can't rely on me (they can't trust me; they can't depend on me).
48. I'm not interested in what other children in the class do.
49. I find it hard to talk with other children in the class.
50. I feel left out of things in this class. (True of you or not true of you?)"

APPENDIX 16

COMPUTER CODEBOOK: (Listing all variables with their valid codes and the location of the variables in the data).

CARD 1

<u>Column</u>	<u>Item</u>	<u>Codes</u>
1	School	1. A 2. B 3. C 4. D 5. E 6. F
2,3	Identification	Ason copechat card
4	Card number	(Serial increase each card within any one case).... 1
5	Sex	1. Male 2. Female
6,7	Age in years	Code exact number
8,9	Teaching experience in years	Code exact number
10,11	Multi-ethnic experience in years	Code exact number
12	Status	1. Deputy headteacher 2. Head of Dept. 3. Teacher
13,14,15	E - score	Code exact score
16,17	T - T score	Code exact score
18,19	R - C score	Code exact score
20,21	N - I score	Code exact score
22	T/T category	1. Toughminded 2. Tenderminded
23	R/C category	1. Radical 2. Conservative

Continued.....

APPENDIX 16 (continued)

<u>Column</u>	<u>Item</u>	<u>Codes</u>
24	N/I	1. Naturalistic 2. Idealistic
25	Tolerance groups	1. Highly tolerant 2. Tolerant 3. Intolerant 4. Highly intolerant
26,27	N. European Boys in class	Code exact number from copechat.
28,29	N. European Girls	Code exact number
30,31	N. Asian Boys	Code exact number
32,33	N. Asian Girls	Code exact number
34,35	N. West Indian Boys	Code exact number
36,37	N. West Indian Girls	Code exact number
38,39,40	Self-esteem : E.B.	Code exact score
41,42,43	" E.G.	"
44,45,46	" A.B.	"
47,48,49	" A.G.	"
50,51,52	" W.I.B.	"
53,54,55	" W.I.G.	"
56,57,58	S.C. as Learner : E.B.	Code exact score
59,60,61	" E.G.	"
62,63,64	" A.B.	"
65,66,67	" A.G.	"
68,69,70	" W.I.B.	"
71,72,73	" W.I.G.	"
74,75	Total N. boys	Code exact number : each class
76,77	Total N. girls	Code exact number : each class
78,79	Total N. children	Code exact number : each class

Continued.....

APPENDIX 16 (continued)CARD 2

<u>Column</u>	<u>Item</u>	<u>Codes</u>
1	School	1. A 2. B 3. C 4. D 5. E 6. F
2,3	Identification no.	As on copechat card
4	Card number	2
5,6,7	Self-Concept : E.B.	Code exact score
8,9,10	" E.G.	"
11,12,13	" A.B.	"
14,15,16	" A.G.	"
17,18,19	" W.I.B.	"
20,21,22	" W.I.G.	"
23,24,25	Mean age : E.B.	Code exact age
26,27,28	" E.G.	"
29,30,31	" A.B.	"
32,33,34	" A.G.	"
35,36,37	" W.I.B.	"
38,39,40	" W.I.G.	"
41,42,43	Time units : Whole class	Code exact number (Cat.1)
44,45,46	" Cat.2 "	"
47,48,49	" 3 "	"
50,51,52	" 4 "	"
53,54,55,56	" 5 "	"
57,58,59	" 6 "	"
60,61,62	" 7 "	"
63,64,65	" 8 "	"
66,67,68	" 9 "	"
69,70,71	" 10 "	"

Continued.....

APPENDIX 16 (continued)CARD 3

<u>Column</u>	<u>Item</u>	<u>Codes</u>
1	School	1. A (From copechat card) 2. B 3. C 4. D 5. E 6. F
2,3	Identification no.	As on copechat card
4	Card number	3
5,6,7	Time units : E.B.1	Code exact number (Cat.1)
8,9,10	" 2	"
11,12,13	" 3	"
14,15,16	" 4	"
17,18,19,20	" 5	"
21,22,23	" 6	"
24,25,26	" 7	"
27,28,29	" 8	"
30,31,32	" 9	"
33,34,35	" 10	"
36,37,38	" E.G.1	"
39,40,41	" 2	"
42,43,44	" 3	"
45,46,47	" 4	"
48,49,50	" 5	"
51,52,53	" 6	"
54,55,56	" 7	"
57,58,59	" 8	"
60,61,62	" 9	"
63,64,65	" 10	"

Continued.....

APPENDIX 16 (continued)

<u>Column</u>	<u>Item</u>	<u>Codes</u>
66,67	Time units : A.B. Cat.1	Code exact number for category
68,69	" 2	"
70,71,72	" 3	"
73,74,75	" 4	"
76,77,78	" 5	"

CARD 4

1	School	1. A (From copechat card) 2. B 3. C 4. D 5. E 6. F
2,3	Identification no.	As on copechat card
4	Card number	4
5,6,7	Time units : A.B. Cat.6	Code exact number for category
8,9,10	" 7	"
11,12,13	" 8	"
14,15,16	" 9	"
17,18,19	" 10	"
20,21	" A.G. Cat.1	"
22,23,24	" 2	"
25,26,27	" 3	"
28,29,30	" 4	"
31,32,33	" 5	"
34,35,36	" 6	"
37,38,39	" 7	"
40,41,42	" 8	"
43,44,45	" 9	"
46,47,48	" 10	"

Continued.....

APPENDIX 16 (continued)

<u>Column</u>	<u>Item</u>	<u>Codes</u>
49,50	Time units : W.I.B. Cat.1	Code exact number for category
51,52,53	"	2 "
54,55,56	"	3 "
57,58,59	"	4 "
60,61,62	"	5 "
63,64,65	"	6 "
66,67,68	"	7 "
69,70,71	"	8 "
72,73,74	"	9 "
75,76,77	"	10 "

CARD 5

1	School	1. A (From copechat card) 2. B 3. C 4. D 5. E 6. F
2,3	Identification no.	As on copechat card
4	Card number	5
5,6	Time units : W.I.G. Cat.1	Code exact number for category
7,8,9	"	2 "
10,11,12	"	3 "
13,14,15	"	4 "
16,17,18	"	5 "
19,20,21	"	6 "
22,23,24	"	7 "
25,26,27	"	8 "
28,29,30	"	9 "
31,32,33	"	10 "
34,35,36,37	Total class teaching-time units	Code exact number

Continued.....

APPENDIX 16 (continued)

<u>Column</u>	<u>Item</u>	<u>Codes</u>
38,39,40,41	Total individual teaching units	Code exact number
42,43,44,45	Total teaching units observed	Code exact number
46,47,48,49	E.B. -- teaching time units	Code exact number as totalled on copechat card.
50,51,52,53	E.G. -- "	"
54,55,56,57	A.B. -- "	"
58,59,60,61	A.G. -- "	"
62,63,64,65	W.I.B. -- "	"
66,67,68,69	W.I.G. -- "	"

APPENDIX 17:Time spent by male and female teachers in class and individual teaching:

	N	Class teaching	Individual teaching	Total observations
Males	28	44808 (37.0%)	76311 (63.0%)	121119 (100.00%)
Females	42	59594 (31.18%)	131547 (68.82%)	191141 (100.00%)
Totals	70	104402 (33.43%)	207858 (66.57%)	312260 (100.00%)

APPENDIX 18:Difference between the amount of time given to class teaching by male and female teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Males	1600	547.1	28	103.4	68	1.359	N.S.
Females	1419	546.8	42	84.4			

APPENDIX 19:Difference between the amount of time given to individual teaching by male and female teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Males	2725	621.0	28	117.4	68	2.148	p < 0.05
Females	3132	847.2	42	130.7			

APPENDIX 20:

Difference between the mean amount of individual teaching time given to girls by male and female teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Males	1027	515.1	28	97.4	68	3.7	p<0.001
Females	1603	707.4	42	109.2			

APPENDIX 21:

Difference between the mean amount of individual teaching time given to boys by male and female teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Males	1698	543.3	28	102.7	68	1.329	N.S.
Females	1529	505.6	42	78.0			

APPENDIX 22:

Difference between the amount of individual teaching time given to boys and girls by male teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Boys	1698	543.3	28	102.7	27	5.613	p<0.001
Girls	1027	515.1		97.4			

APPENDIX 23:

Difference between the amount of individual teaching time given to boys and girls by female teachers:

	$\bar{x}$	S.D.	N	S.E.	d.f.	t-value	significance
Boys	1529	505.6	42	78.0	41	0.557	N.S.
Girls	1603	707.4		109.2			

APPENDIX 24:

Ethnic groups as a percentage of the sample and the percentage amount of individual teaching time given by male and female teachers:

	Ethnic group and sex	N pupils	% of sample taught by male & female teachers	N observations (time units)	% of individual teaching time	+ individual teaching time
Male teachers	E.B.	212	28.92	22855	29.95	+ 1.03
	E.G.	165	22.52	15434	20.23	- 2.29
	A.B.	95	12.96	12475	16.35	+ 3.39
	A.G.	95	12.96	7322	9.59	- 3.37
	WIB.	94	12.82	12218	16.01	+ 3.19
	WIG.	72	9.82	6007	7.87	- 1.95
	Totals	733	100.00	76311	100.00	0.00
Female teachers	E.B.	300	27.75	31897	24.25	- 3.50
	E.G.	263	24.33	32228	24.50	+ 0.17
	A.B.	124	11.47	13804	10.49	- 0.98
	A.G.	135	12.49	19540	14.85	+ 2.36
	WIB.	126	11.66	18525	14.08	+ 2.42
	WIG.	133	12.30	15553	11.83	- 0.47
	Totals	1081	100.00	131547	100.00	0.00

APPENDIX 25:

Observed and expected frequencies<sup>(1)</sup> of the individual teaching time used by male teachers with boys and girls of European, Asian and West Indian origins:

	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTAL
$f_o$	22855	15434	12475	7322	12218	6007	76311
$f_e$	22069	17185	9890	9890	9783	7494	76311
$f_o - f_e$	+786	-1751	+2585	-2568	+2435	-1487	
% of $f_e$	+3.56	-10.19	+26.14	-25.97	+24.79	-19.84	

APPENDIX 26:

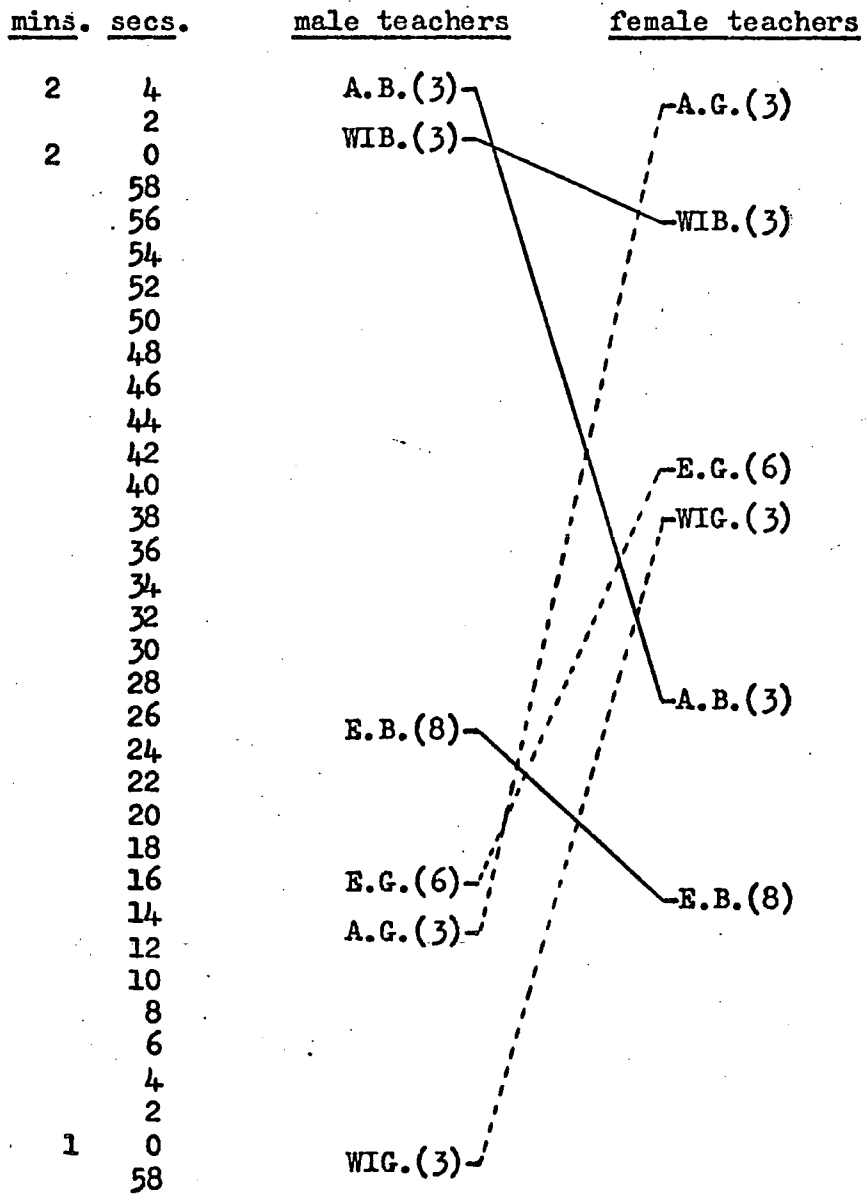
Observed and expected frequencies<sup>(1)</sup> of individual teaching time used by female teachers with boys and girls of European, Asian & West Indian origins:

	E.B.	E.G.	A.B.	A.G.	WIG.	EIG.	TOTAL
$f_o$	31897	32228	13804	19540	18525	15553	131547
$f_e$	36505	32006	15088	16430	15338	16180	131547
$f_o - f_e$	-4608	+222	-1284	+3110	+3187	-627	
% of $f_e$	-12.62	+0.7	-8.51	+18.93	+20.78	-3.88	

- 
1. The expected frequency ( $f_e$ ) is calculated according to the percentage number of children in each ethnic group being taught. Thus, in Appendix 25 above, girls of Asian origin (A.G.) who constitute 12.96% of the children taught by male teachers would be expected to receive 12.96% of the time given to individual teaching. For girls of Asian origin, in this example, the observed frequency ( $f_o$ ) was 7322 time units out of a total of 76311 time units of which 12.96% is 9890 thus these girls received 2568, or 25.97%, fewer units of time than would have been expected in an equal distribution of individual teaching between boys and girls of each ethnic group.

APPENDIX 27:

Observed allocation of individual attention during a one-hour period of interaction by male and female teachers in an 'average' class of 26 pupils:



(Numbers in brackets refer to the average number of children in an average multi-ethnic class of 26 pupils).

APPENDIX 28:

Pearson correlation coefficients between self-concept scores and the individual teaching time given to boys and girls of European, Asian and West Indian origins by male and female teachers:

Ethnic groups	Male teachers			Female teachers		
	r.	d.f.	signif.	r.	d.f.	signif.
E.B.	0.3226	26	N.S.	0.4811	40	p < 0.01
E.G.	0.2514	25	N.S.	0.2616	40	N.S.
A.B.	0.4049	22	p < 0.05	0.3744	35	p < 0.05
A.G.	0.7409	24	p < 0.001	0.4235	34	p < 0.02
WIB.	0.3571	24	N.S.	0.4321	38	p < 0.01
WIG.	0.2136	25	N.S.	0.3672	36	p < 0.05

APPENDIX 29:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by male teachers:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
EB	62.37	6.32	28	1.19		53	50	52	52	53
EG	62.16	6.61	27	1.27	0.121		49	51	51	52
AB	60.13	5.63	24	1.15	1.391	1.172		48	48	49
AG	59.25	6.60	26	1.29	1.830	1.600	0.503		50	51
WIB	57.25	9.38	26	1.84	2.429@	2.207†	1.300	0.889		51
WIG	58.95	8.45	27	1.63	1.754	1.551	0.576	0.143	0.694	
						t-values				

Significance:  $p < 0.02 = @$ ;  $p < 0.05 = †$

APPENDIX 30:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by female teachers:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
EB	62.53	7.63	42	1.18		82	77	76	80	78
EG	62.10	5.92	42	0.91	0.285		77	76	80	78
AB	59.73	6.99	37	1.15	1.691	1.633		71	75	73
AG	56.81	7.08	36	1.18	3.408*	3.593†	1.768		74	72
WIB	57.54	7.19	40	1.14	3.043*	3.142*	1.350	0.443		76
WIG	61.78	9.40	38	1.52	0.392	0.184	1.073	2.559@	2.246†	
						t-values				

Significance:  $p < 0.001 = †$ ;  $p < 0.01 = *$ ;  $p < 0.02 = @$ ;  $p < 0.05 = †$

APPENDIX 31:

Observed and expected frequencies<sup>(1)</sup> of the individual teaching time used by male teachers in ten modes of teaching with boys and girls of European, Asian and West Indian origins:

	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTAL
% of sample	28.92	22.52	12.96	12.96	12.82	9.82	100.00

Category 1:

$f_o$	76	7	11	24	17	12	147
$f_e$	43	33	19	19	19	14	147
$f_o - f_e$	+33	-26	-8	+5	-2	-2	
% of $f_e$	+76.7	-78.8	-42.1	+26.3	-10.5	-14.3	

Category 2:

$f_o$	557	449	291	267	285	176	2025
$f_e$	586	456	262	262	260	199	2025
$f_o - f_e$	-29	-7	+29	+5	+25	-23	
% of $f_e$	-4.9	-1.5	+11.1	+1.9	+9.6	-11.6	

Category 3:

$f_o$	1075	801	612	351	389	340	3568
$f_e$	1032	804	462	462	458	350	3568
$f_o - f_e$	+43	-3	+150	-111	-69	-10	
% of $f_e$	+4.2	-0.4	+32.5	-24.0	-15.7	-2.9	

Category 4:

$f_o$	2606	1781	1351	831	1651	772	8992
$f_e$	2601	2025	1165	1165	1153	883	8992
$f_o - f_e$	+5	-244	+186	-334	+498	-111	
% of $f_e$	+0.2	-12.0	+16.0	-28.7	+43.2	-12.6	

Category 5:

$f_o$	6189	4282	3138	1734	2613	1201	19157
$f_e$	5540	4314	2483	2483	2456	1881	19157
$f_o - f_e$	+649	-32	+655	-749	+157	-680	
% of $f_e$	+11.7	-0.7	+26.4	-30.2	+6.4	-36.2	

Contd.....

1. See footnote to Appendix 25 on page 279.

APPENDIX 31: (Continued)

	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTAL
% of sample	28.92	22.52	12.96	12.96	12.82	9.82	100.00
<u>Category 6:</u>							
$f_o$	2424	1808	1524	932	1547	889	9124
$f_e$	2638	2054	1183	1183	1170	896	9124
$f_o - f_e$	-214	-246	+341	-251	+377	-7	
% of $f_e$	-8.1	-12.0	+28.8	-21.2	+32.2	-0.8	
<u>Category 7:</u>							
$f_o$	1762	774	858	464	1629	373	5860
$f_e$	1695	1320	759	759	751	576	5860
$f_o - f_e$	+67	-546	+99	-295	+878	-203	
% of $f_e$	+4.0	-41.4	+13.0	-38.9	+116.9	-35.2	
<u>Category 8:</u>							
$f_o$	4698	2843	2464	1454	2288	1168	14915
$f_e$	4313	3359	1933	1933	1912	1465	14915
$f_o - f_e$	+385	-516	+531	-479	+376	-297	
% of $f_e$	+8.9	-15.4	+27.5	-24.8	+19.7	-20.3	
<u>Category 9:</u>							
$f_o$	1611	1578	1022	655	854	430	6150
$f_e$	1778	1385	798	798	787	604	6150
$f_o - f_e$	-167	+193	+224	-143	+67	-174	
% of $f_e$	-9.4	+13.9	+28.1	-17.9	+8.5	-28.8	
<u>Category 10:</u>							
$f_o$	1857	1111	1204	610	945	646	6373
$f_e$	1843	1435	826	826	817	626	6373
$f_o - f_e$	+14	-324	+378	-216	+128	+20	
% of $f_e$	+0.8	-22.6	+45.8	-26.2	+15.7	+3.2	
<u>Totals:</u>							
$f_o$	22855	15434	12475	7322	12218	6007	76311
$f_e$	22069	17185	9890	9890	9783	7494	76311
$f_o - f_e$	+786	-1751	+2585	-2568	+2435	-1487	
% of $f_e$	+3.56	-10.19	+26.14	-25.97	+24.79	-19.84	

APPENDIX 32:

Observed and expected frequencies <sup>(1)</sup> of the individual teaching time used by female teachers in ten modes of teaching with boys and girls of European, Asian and West Indian origins:

	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTAL
% of sample	27.75	24.33	11.47	12.49	11.66	12.30	100.00
<u>Category 1:</u>							
$f_o$	7	78	29	36	21	27	198
$f_e$	55	48	23	25	23	24	198
$f_o - f_e$	-48	+30	+6	+11	-2	+3	
% of $f_e$	-87.3	+62.5	+26.1	+44.0	-8.7	+12.5	
<u>Category 2:</u>							
$f_o$	849	1062	442	624	475	377	3829
$f_e$	1063	932	439	478	446	471	3829
$f_o - f_e$	-214	+130	+3	+146	+29	-94	
% of $f_e$	-20.1	+13.9	+0.7	+30.5	+6.5	-20.0	
<u>Category 3:</u>							
$f_o$	1551	2096	562	846	597	527	6179
$f_e$	1715	1503	709	772	720	760	6179
$f_o - f_e$	-164	+593	-147	+74	-123	-233	
% of $f_e$	-9.6	+39.5	-20.7	+9.6	-17.1	-30.7	
<u>Category 4:</u>							
$f_o$	3493	3551	1955	2491	2100	2208	15798
$f_e$	4384	3844	1812	1973	1842	1943	15798
$f_o - f_e$	-891	-293	+143	+518	+258	+265	
% of $f_e$	-20.3	-7.6	+7.9	+26.3	+14.0	+13.6	
<u>Category 5:</u>							
$f_o$	7437	8995	2878	5276	4618	4341	33545
$f_e$	9309	8161	3848	4190	3911	4126	33545
$f_o - f_e$	-1872	+834	-970	+1086	+707	+215	
% of $f_e$	-20.1	+10.2	-25.2	+25.9	+18.1	+5.2	

Contd....

1. See footnote to Appendix 26 on page 279.

## APPENDIX 32: (Continued)

	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	TOTAL
% of sample	27.75	24.33	11.47	12.49	11.66	12.30	100.00
<u>Category 6:</u>							
$f_o$	3520	3654	1742	2145	2534	1862	15457
$f_e$	4289	3761	1773	1930	1802	1902	15457
$f_o - f_e$	-769	-107	-31	+215	+732	-40	
% of $f_e$	-17.9	-2.8	-1.7	+11.1	+40.6	-2.1	
<u>Category 7:</u>							
$f_o$	3116	1931	1234	901	2462	1012	10656
$f_e$	2957	2593	1222	1331	1243	1311	10656
$f_o - f_e$	+159	-662	+12	-430	+1220	-299	
% of $f_e$	+5.4	-25.5	+1.0	-32.3	+98.2	-22.8	
<u>Category 8:</u>							
$f_o$	5967	5854	3016	4324	2910	2819	24890
$f_e$	6907	6056	2854	3109	2903	3061	24890
$f_o - f_e$	-940	-202	+162	+1215	+7	-242	
% of $f_e$	-13.6	-3.3	+5.7	+39.1	+0.2	-7.9	
<u>Category 9:</u>							
$f_o$	3316	3064	960	1216	1757	1396	11709
$f_e$	3249	2849	1343	1462	1366	1440	11709
$f_o - f_e$	+67	+215	-383	-246	+391	-44	
% of $f_e$	+2.1	+7.5	-28.5	-16.8	+28.6	-3.1	
<u>Category 10:</u>							
$f_o$	2641	1943	986	1681	1051	984	9286
$f_e$	2577	2259	1065	1160	1083	1142	9286
$f_o - f_e$	+64	-316	-79	+521	-32	-158	
% of $f_e$	+2.5	-14.0	-7.4	+44.9	-3.0	-13.8	
<u>Totals</u>							
$f_o$	31897	32228	13804	19540	18525	15553	131547
$f_e$	36505	32006	15088	16430	15338	16180	131547
$f_o - f_e$	-4608	+222	-1284	+3110	+3187	-627	
% of $f_e$	-12.62	+0.7	-8.51	+18.93	+20.78	-3.88	

APPENDIX 33:

Pearson correlation coefficients between self-concept scores and the categories of classroom interaction used by male teachers with boys and girls of European, Asian and West Indian origins:

CAT.	EB(df.26)	EG(df.25)	AB(df.22)	AG(df.24)	WIB(df.24)	WIG(df.25)
1	0.0370	0.3951 <del>/</del>	0.1930	0.3117	0.1455	0.1619
2	0.0617	0.0948	0.0578	0.1236	0.5455*	0.5123*
3	0.0254	0.3047	0.0250	0.2369	0.4825@	0.2677
4	0.1330	0.1273	0.1705	0.4969*	0.4611@	0.1239
5	0.2420	0.2694	0.4346 <del>/</del>	0.4215 <del>/</del>	0.1689	0.0367
6	0.0398	0.0072	0.3802	0.5438*	0.3594	0.4239 <del>/</del>
7	0.0071	0.1214	0.0755	0.2062	0.3794	0.3364
8	0.2626	0.2098	0.0802	0.6385 <del>†</del>	0.0629	0.3872 <del>/</del>
9	0.0809	0.1991	0.2084	0.6766 <del>†</del>	0.2315	0.4471@
10	0.1269	0.1698	0.1679	0.3907 <del>/</del>	0.0717	0.2087

Significance: p < 0.001 = ~~†~~

p < 0.01 = \*

p < 0.02 = @

p < 0.05 = ~~/~~

## APPENDIX 34:

Pearson correlation coefficients between self-concept scores and the categories of classroom interaction used by female teachers with boys and girls of European, Asian and West Indian origins:

CAT.	EB(df.40)	EG(df.40)	AB(df.35)	AG(df.34)	WIB(df.38)	WIG(df.36)
1	0.0284	0.0062	0.0476	0.2810	0.3022	0.1071
2	0.0342	0.1940	0.2784	0.3888@	0.1640	0.0078
3	0.3000	0.0947	0.2638	0.1130	0.1460	0.1309
4	0.1318	0.1895	0.1255	0.3568/	0.3794@	0.4678*
5	0.4670*	0.3111/	0.1670	0.1366.	0.3921@	0.0944
6	0.4529*	0.1659	0.4476*	0.4319*	0.3345/	0.2843
7	0.2788	0.5398+	0.3720/	0.3747/	0.3187/	0.1856
8	0.1277	0.0361	0.2358	0.4076@	0.1065	0.2058
9	0.1580	0.0403	0.1388	0.4278@	0.3206/	0.2282
10	0.2652	0.1809	0.3360/	0.3724/	0.2043	0.3444/

Significance:  $p < 0.001 = +$

$p < 0.01 = *$

$p < 0.02 = @$

$p < 0.05 = /$

APPENDIX 35:

Difference between the population means and the means of e-scores  
of a sample of men and women teachers working in multi-ethnic schools:

Sex	Population mean	Sample mean	df	S.E.	t-value	Level of significance
Men	99.1	88.25	27	3.11	3.48	p < 0.01
Women	97.9	86.14	41	2.21	5.32	p < 0.001

APPENDIX 36:

This appendix on the following ten pages contains thirty tables showing for each of the ten different modes of teaching the observed and expected frequencies and their distribution between children of European, Asian and West Indian origins, between black and white children and between boys and girls irrespective of ethnic origin.

TABLE 36.1:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to accepting their feelings (category 1) by ethnically highly tolerant (HPT) and highly intolerant teachers (HIT):

C1HPT	E.	A.	WI.	TOTAL	C1HIT	E.	A.	WI.	TOTAL
$f_o$	60	24	41	125	$f_o$	39	24	0	63
$f_e$	73	24	28	125	$f_e$	30	16	17	63
$(f_o - f_e)$	-13	0	+13		$(f_o - f_e)$	+9	+8	-17	
% total	-10.4	0	+10.4		% total	+14.3	+12.7	-27.0	
$\chi^2_2 = 8.35; p < 0.02$					$\chi^2_2 = 23.7; p < 0.001$				

TABLE 36.2:

Distribution between white and black children of individual teaching time given to accepting their feelings (category 1) by ethnically highly tolerant (HPT) and ethnically highly intolerant teachers (HIT):

C1HPT	W.	B.	TOTAL	C1HIT	W.	B.	TOTAL
$f_o$	60	65	125	$f_o$	39	24	63
$f_e$	73	52	125	$f_e$	30	33	63
$(f_o - f_e)$	-13	+13		$(f_o - f_e)$	+9	-9	
% total	-10.4	+10.4		% total	+14.3	-14.3	
$\chi^2_1 = 5.57; p < 0.02$				$\chi^2_1 = 5.15; p < 0.05$			

TABLE 36.3:

Distribution between boys and girls of individual teaching time given to accepting their feelings (category 1) by ethnically highly tolerant (HPT) and ethnically highly intolerant teachers (HIT):

C1HPT	B.	G.	TOTAL	C1HIT	B.	G.	TOTAL
$f_o$	51	74	125	$f_o$	17	46	63
$f_e$	65	60	125	$f_e$	33	30	63
$(f_o - f_e)$	-14	+14		$(f_o - f_e)$	-16	+16	
% total	-11.2	+11.2		% total	-25.4	+25.4	
$\chi^2_1 = 6.28; p < 0.02$				$\chi^2_1 = 16.29; p < 0.001$			

TABLE 36.4:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to praise and encouragement (category 2) by ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C2HTT	E.	A.	WI.	TOTAL	C2HIT	E.	A.	WI.	TOTAL
$f_o$	568	454	133	1455	$f_o$	278	132	72	482
$f_e$	851	278	326	1455	$f_e$	237	118	127	482
$(f_o - f_e)$	-283	+176	+107		$(f_o - f_e)$	+41	+14	-55	
% total	-19.5	+12.1	+7.4		% total	+8.5	+2.9	-11.4	
$\chi^2_2 = 240.66; p < 0.001$					$\chi^2_2 = 32.57; p < 0.001$				

TABLE 36.5:

Distribution between white and black children of individual teaching time given to praise and encouragement (category 2) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C2HTT	W.	B.	TOTAL	C2HIT	W.	B.	TOTAL
$f_o$	568	887	1455	$f_o$	278	204	482
$f_e$	851	604	1455	$f_e$	237	245	482
$(f_o - f_e)$	-283	+283		$(f_o - f_e)$	+41	-41	
% total	-19.5	+19.5		% total	+8.5	-8.5	
$\chi^2_1 = 226.71; p < 0.001$				$\chi^2_1 = 13.95; p < 0.001$			

TABLE 36.6:

Distribution between boys and girls of individual teaching time given to praise and encouragement (category 2) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C2HTT	B.	G.	TOTAL	C2HIT	B.	G.	TOTAL
$f_o$	763	692	1455	$f_o$	265	217	482
$f_e$	758	697	1455	$f_e$	256	226	482
$(f_o - f_e)$	+5	-5		$(f_o - f_e)$	+9	-9	
% total	+0.3	-0.3		% total	+1.8	-1.8	
$\chi^2_1 = 0.07; N.S.$				$\chi^2_1 = 0.67; N.S.$			

TABLE 36.7:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to the acceptance and use of their ideas (category 3) by highly tolerant (HTT) & highly intolerant teachers (HIT):

C3HTT	E.	A.	WI.	TOTAL	C3HIT	E.	A.	WI.	TOTAL
$f_o$	961	576	507	2044	$f_o$	777	306	186	1269
$f_e$	1196	390	458	2044	$f_e$	625	310	334	1269
$(f_o - f_e)$	-235	+186	+49		$(f_o - f_e)$	+152	-4	-148	
% total	-11.5	+9.1	+2.4		% total	+12.0	-0.3	-11.7	
$\chi^2_2 = 134.88; p < 0.001$					$\chi^2_2 = 102.6; p < 0.001$				

TABLE 36.8:

Distribution between black and white children of individual teaching time given to the acceptance and use of their ideas (category 3) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C3HTT	W.	B.	TOTAL	C3HIT	W.	B.	TOTAL
$f_o$	961	1083	2044	$f_o$	777	492	1269
$f_e$	1196	848	2044	$f_e$	625	644	1269
$(f_o - f_e)$	-235	+235		$(f_o - f_e)$	+152	-152	
% total	-11.5	+11.5		% total	+12.0	-12.0	
$\chi^2_1 = 114.3; p < 0.001$				$\chi^2_1 = 72.84; p < 0.001$			

TABLE 36.9:

Distribution between boys and girls of individual teaching time given to the acceptance and use of their ideas (category 3) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C3HTT	B.	G.	TOTAL	C3HIT	B.	G.	TOTAL
$f_o$	984	1060	2044	$f_o$	689	580	1269
$f_e$	1064	980	2044	$f_e$	673	596	1269
$(f_o - f_e)$	-80	+80		$(f_o - f_e)$	+16	-16	
% total	-3.9	+3.9		% total	+1.3	-1.3	
$\chi^2_1 = 12.55; p < 0.001$				$\chi^2_1 = 0.81; N.S.$			

TABLE 36.10:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to asking questions (category 4) by ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C4HTT	E.	A.	WI.	TOTAL	C4HIT	E.	A.	WI.	TOTAL
$f_o$	1941	1161	1526	4628	$f_o$	2227	1456	1204	4887
$f_e$	2709	885	1034	4628	$f_e$	2404	1196	1287	4887
$(f_o - f_e)$	-768	+276	+492		$(f_o - f_e)$	-177	+260	-83	
% total	-16.6	+6.0	+10.6		% total	-3.6	+5.3	-1.7	
$\chi^2_2 = 537.91; p < 0.001$					$\chi^2_2 = 74.91; p < 0.001$				

TABLE 36.11:

Distribution between white and black children of individual teaching time given to asking questions (category 4) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C4HTT	W.	B.	TOTAL	C4HIT	W.	B.	TOTAL
$f_o$	1941	2687	4628	$f_o$	2227	2660	4887
$f_e$	2709	1919	4628	$f_e$	2404	2483	4887
$(f_o - f_e)$	-768	+768		$(f_o - f_e)$	-177	+177	
% total	-16.6	+16.6		% total	-3.6	+3.6	
$\chi^2_1 = 525.09; p < 0.001$				$\chi^2_1 = 25.65; p < 0.001$			

TABLE 36.12:

Distribution between boys and girls of individual teaching time given to asking questions (category 4) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C4HTT	B.	G.	TOTAL	C4HIT	B.	G.	TOTAL
$f_o$	2659	1969	4628	$f_o$	2783	2104	4887
$f_e$	2409	2219	4628	$f_e$	2589	2298	4887
$(f_o - f_e)$	+250	-250		$(f_o - f_e)$	+194	-194	
% total	+5.4	-5.4		% total	+4.0	-4.0	
$\chi^2_1 = 54.11; p < 0.001$				$\chi^2_1 = 30.91; p < 0.001$			

TABLE 36.13:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to direct teaching (category 5) by ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C5HTT	E.	A.	WI.	TOTAL	C5HIT	E.	A.	WI.	TOTAL
$f_o$	4713	1771	2518	9002	$f_o$	3230	1311	1229	5770
$f_e$	5268	1722	2012	9002	$f_e$	2839	1412	1519	5770
$(f_o - f_e)$	-555	+49	+506		$(f_o - f_e)$	+391	-101	-270	
% total	-6.2	+0.6	+5.6		% total	+6.8	-1.8	-5.0	

$\chi^2_2 = 187.12; p < 0.001$                        $\chi^2_2 = 116.44; p < 0.001$

TABLE 36.14:

Distribution between white and black children of individual teaching time given to direct teaching (category 5) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C5HTT	W.	B.	TOTAL	C5HIT	W.	B.	TOTAL
$f_o$	4713	4289	9002	$f_o$	3230	2540	5770
$f_e$	5268	3734	9002	$f_e$	2839	2931	5770
$(f_o - f_e)$	-555	+555		$(f_o - f_e)$	+391	-391	
% total	-6.2	+6.2		% total	+6.8	-6.8	

$\chi^2_1 = 140.96; p < 0.001$                        $\chi^2_1 = 106.01; p < 0.001$

TABLE 36.15:

Distribution between boys and girls of individual teaching time given to direct teaching (category 5) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C5HTT	B.	G.	TOTAL	C5HIT	B.	G.	TOTAL
$f_o$	4708	4294	9002	$f_o$	3117	2653	5770
$f_e$	4686	4316	9002	$f_e$	3057	2713	5770
$(f_o - f_e)$	+22	-22		$(f_o - f_e)$	+60	-60	
% total	+0.3	-0.3		% total	+1.0	+1.0	

$\chi^2_1 = 0.22; \text{N.S.}$                        $\chi^2_1 = 2.5; \text{N.S.}$

TABLE 36.16:

Distribution between children of European, Asian and West Indian origins of individual teaching time spent in giving directions (category 6) by ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C6HTT	E.	A.	WI.	TOTAL	C6HIT	E.	A.	WI.	TOTAL
$f_o$	1378	745	855	2978	$f_o$	1532	796	1222	3550
$f_e$	1743	569	666	2978	$f_e$	1747	868	935	3550
$(f_o - f_e)$	-365	+176	+189		$(f_o - f_e)$	-215	-72	+287	
% total	-12.3	+5.9	+6.4		% total	-6.1	-2.0	+8.1	
$\chi^2_2 = 184.51; p < 0.001$					$\chi^2_2 = 120.53; p < 0.001$				

TABLE 36.17:

Distribution between white and black children of individual teaching time spent in giving directions (category 6) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C6HTT	W.	B.	TOTAL	C6HIT	W.	B.	TOTAL
$f_o$	1378	1600	2978	$f_o$	1532	2018	3550
$f_e$	1743	1235	2978	$f_e$	1747	1803	3550
$(f_o - f_e)$	-365	+365		$(f_o - f_e)$	-215	+215	
% total	-12.3	+12.3		% total	-6.1	+6.1	
$\chi^2_1 = 184.31; p < 0.001$				$\chi^2_1 = 52.1; p < 0.001$			

TABLE 36.18:

Distribution between boys and girls of individual teaching time spent in giving directions (category 6) by ethnically highly tolerant (HTT) and ethnically highly intolerant teachers (HIT):

C6HTT	B.	G.	TOTAL	C6HIT	B.	G.	TOTAL
$f_o$	1770	1208	2978	$f_o$	1793	1757	3550
$f_e$	1550	1428	2978	$f_e$	1881	1669	3550
$(f_o - f_e)$	+220	-220		$(f_o - f_e)$	-88	+88	
% total	+7.4	-7.4		% total	-2.5	+2.5	
$\chi^2_1 = 65.12; p < 0.001$				$\chi^2_1 = 8.76; p < 0.01$			

TABLE 36.19:

Distribution between children of European, Asian and West Indian origins of individual teaching time used in criticism or justifying authority (category 7) of highly tolerant (HTT) & highly intolerant teachers (HIT):

C7HTT	E.	A.	WI.	TOTAL	C7HIT	E.	A.	WI.	TOTAL
$f_o$	1275	349	580	2204	$f_o$	797	375	533	1705
$f_e$	1290	422	492	2204	$f_e$	838	418	449	1705
$(f_o - f_e)$	-15	-73	+88		$(f_o - f_e)$	-41	-43	+84	
% total	-0.7	-3.3	+4.0		% total	-2.4	-2.5	+4.9	
$\chi^2_2 = 28.54; p < 0.001$					$\chi^2_2 = 22.14; p < 0.001$				

TABLE 36.20:

Distribution between white and black children of individual teaching time used in criticism or justifying authority (category 7) of ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C7HTT	W.	B.	TOTAL	C7HIT	W.	B.	TOTAL
$f_o$	1275	929	2204	$f_o$	797	908	1705
$f_e$	1290	914	2204	$f_e$	838	867	1705
$(f_o - f_e)$	-15	+15		$(f_o - f_e)$	-41	+41	
% total	-0.7	+0.7		% total	-2.4	+2.4	
$\chi^2_1 = 0.04; \text{N.S.}$				$\chi^2_1 = 3.94; p < 0.05$			

TABLE 36.21:

Distribution between boys and girls of individual teaching time used in criticism or justifying authority (category 7) of ethnically highly tolerant (HTT) and highly intolerant teachers (HIT):

C7 HTT	B.	G.	TOTAL	C7HIT	B.	G.	TOTAL
$f_o$	1460	744	2204	$f_o$	1024	681	1705
$f_e$	1148	1056	2204	$f_e$	903	802	1705
$(f_o - f_e)$	+312	-312		$(f_o - f_e)$	+121	-121	
% total	+14.2	-14.2		% total	+7.1	-7.1	
$\chi^2_1 = 176.98; p < 0.001$				$\chi^2_1 = 34.47; p < 0.001$			

TABLE 36.22:

Distribution between children of European, Asian and West Indian origins of individual teaching time given to their responses (category 8) to the initiatives of highly tolerant (HPT) & highly intolerant teachers (HIT):

CSHPT	E.	A.	WI.	TOTAL	CSHIT	E.	A.	WI.	TOTAL
$f_o$	3097	1915	1670	6682	$f_o$	3864	2149	1682	7695
$f_e$	3910	1278	1494	6682	$f_e$	3787	1882	2026	7695
$(f_o - f_e)$	-813	+637	+176		$(f_o - f_e)$	+77	+267	-344	
% total	-12.1	+9.5	+2.6		% total	+1.0	+3.5	-4.5	
$\chi^2_2 = 507.28; p < 0.001$					$\chi^2_2 = 97.85; p < 0.001$				

TABLE 36.23:

Distribution between white and black children of individual teaching time given to their responses (category 8) to the initiatives of ethnically highly tolerant (HPT) and ethnically highly intolerant teachers (HIT):

CSHPT	W.	B.	TOTAL	CSHIT	W.	B.	TOTAL
$f_o$	3097	3585	6682	$f_o$	3864	3831	7695
$f_e$	3910	2772	6682	$f_e$	3787	3908	7695
$(f_o - f_e)$	-813	+813		$(f_o - f_e)$	+77	-77	
% total	-12.1	+12.1		% total	+1.0	-1.0	
$\chi^2_1 = 407.49; p < 0.001$				$\chi^2_1 = 3.08; N.S.$			

TABLE 36.24:

Distribution between boys and girls of individual teaching time given to their responses (category 8) by ethnically highly tolerant (HPT) and ethnically highly intolerant teachers (HIT):

CSHPT	B.	G.	TOTAL	CSHIT	B.	G.	TOTAL
$f_o$	3756	2926	6682	$f_o$	4583	3112	7695
$f_e$	3479	3203	6682	$f_e$	4076	3619	7695
$(f_o - f_e)$	+277	-277		$(f_o - f_e)$	+507	-507	
% total	+4.2	-4.2		% total	+6.6	-6.6	
$\chi^2_1 = 46.01; p < 0.001$				$\chi^2_1 = 134.09; p < 0.001$			

TABLE 36.25:

Distribution between children of European, Asian and West Indian origins of individual teaching time used to initiate their own contributions in classes taught by highly tolerant (HTT) & highly intolerant teachers (HIT):

C9HTT	E.	A.	WI.	TOTAL	C9HIT	E.	A.	WI.	TOTAL
$f_o$	1869	862	1156	3887	$f_o$	1377	622	279	2278
$f_e$	2274	743	870	3887	$f_e$	1121	558	599	2278
$(f_o - f_e)$	-405	+119	+286		$(f_o - f_e)$	+256	+64	-320	
% total	-10.4	+3.1	+7.3		% total	+11.2	+2.8	-14.0	
$\chi^2_2 = 185.21; p < 0.001$					$\chi^2_2 = 201.05; p < 0.001$				

TABLE 36.26:

Distribution between white and black children of individual teaching time used to initiate their own contributions in classes taught by highly tolerant (HTT) and highly intolerant teachers (HIT):

C9HTT	W.	B.	TOTAL	C9HIT	W.	B.	TOTAL
$f_o$	1869	2018	3887	$f_o$	1377	901	2278
$f_e$	2274	1613	3887	$f_e$	1121	1157	2278
$(f_o - f_e)$	-405	+405		$(f_o - f_e)$	+256	-256	
% total	-10.4	+10.4		% total	+11.2	-11.2	
$\chi^2_1 = 173.82; p < 0.001$				$\chi^2_1 = 115.11; p < 0.001$			

TABLE 36.27:

Distribution between boys and girls of individual teaching time used to initiate their own contributions in classes taught by ethnically highly (HTT) tolerant and ethnically highly intolerant teachers (HIT):

C9HTT	B.	G.	TOTAL	C9HIT	B.	G.	TOTAL
$f_o$	2013	1874	3887	$f_o$	1451	827	2278
$f_e$	2023	1864	3887	$f_e$	1207	1071	2278
$(f_o - f_e)$	-10	+10		$(f_o - f_e)$	+244	-244	
% total	-0.3	+0.3		% total	+10.7	-10.7	
$\chi^2_1 = 0.1; N.S.$				$\chi^2_1 = 104.9; p < 0.001$			

TABLE 36.28:

Distribution between children of European, Asian and West Indian origins of individual teaching time when silence is used in the course of teaching by highly tolerant (HTT) and highly intolerant teachers (HIT):

C1OHTT	E.	A.	WI.	TOTAL	C1OHIT	E.	A.	WI.	TOTAL
$f_o$	892	705	654	2251	$f_o$	997	555	392	1944
$f_e$	1317	430	504	2251	$f_e$	956	476	512	1944
$(f_o - f_e)$	-425	+275	+150		$(f_o - f_e)$	+41	+79	-120	
% total	-18.9	+12.2	+6.7		% total	+2.1	+4.1	-6.2	
$\chi^2_2 = 357.66; p < 0.001$					$\chi^2_2 = 43.0; p < 0.001$				

TABLE 36.29:

Distribution between white and black children of individual teaching time when silence is used in the course of teaching by highly tolerant (HTT) and highly intolerant teachers (HIT):

C1OHTT	W.	B.	TOTAL	C1OHIT	W.	B.	TOTAL
$f_o$	892	1359	2251	$f_o$	997	947	1944
$f_e$	1317	934	2251	$f_e$	956	988	1944
$(f_o - f_e)$	-425	+425		$(f_o - f_e)$	+41	-41	
% total	-18.9	+18.9		% total	+2.1	-2.1	
$\chi^2_1 = 330.54; p < 0.001$				$\chi^2_1 = 3.46; N.S.$			

TABLE 36.30:

Distribution between boys and girls of individual teaching time when silence is used in the course of teaching by highly tolerant (HTT) and highly intolerant teachers (HIT):

C1OHTT	B.	G.	TOTAL	C1OHIT	B.	G.	TOTAL
$f_o$	1210	1041	2251	$f_o$	1203	741	1944
$f_e$	1172	1079	2251	$f_e$	1030	914	1944
$(f_o - f_e)$	+38	-38		$(f_o - f_e)$	+173	-173	
% total	+1.7	-1.7		% total	+8.9	-8.9	
$\chi^2_1 = 2.57; N.S.$				$\chi^2_1 = 61.8; p < 0.001$			

APPENDIX 37:

This appendix contains Pearson Correlation Coefficients for each of the ten categories of interaction as used by highly tolerant and highly intolerant teachers related to:

- a) the level of the self-concept of boys and girls of European, Asian and West Indian origins;
- b) the level of the self-concept of each ethnic group;
- c) the level of the self-concept and skin colour;
- and d) the level of the self-concept and the children's sex.

In this appendix the ten percent level of significance is shown.

TABLE 37.1:

<u>CATEGORY 1:</u>		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.0159	-0.0459	-	+0.5219	-	-
	df	(10)	(9)	-	(9)	-	-
	p	n.s.	n.s.	-	< 0.10	-	-
H.T.T.:	r	+0.2186	-0.0047	-0.2770	-	+0.1076	+0.2613
	df	(10)	(10)	(8)	-	(9)	(10)
	p	n.s.	n.s.	n.s.	-	n.s.	n.s.

TABLE 37.2:

<u>CATEGORY 1:</u>		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	-0.0138	+0.3802	-
	df	(21)	(21)	-
	p	n.s.	< 0.10	-
H.T.T.:	r	-0.0104	-0.2393	+0.1784
	df	(22)	(19)	(21)
	p	n.s.	n.s.	n.s.

TABLE 37.3:

<u>CATEGORY 1:</u>		<u>White</u>	<u>Black</u>
H.I.T.:	r	-0.0138	+0.2705
	df	(21)	(44)
	p	n.s.	< 0.10
H.T.T.:	r	-0.0104	+0.0569
	df	(22)	(42)
	p	n.s.	n.s.

TABLE 37.4:

<u>CATEGORY 1:</u>		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.1606	+0.2392
	df	(34)	(31)
	p	n.s.	n.s.
H.T.T.:	r	-0.0455	+0.1510
	df	(31)	(33)
	p	n.s.	n.s.

TABLE 37.5:

<u>CATEGORY 2:</u>	<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.: r	+0.0482	+0.2139	+0.2399	+0.5517	+0.4846	-0.2015
df	(10)	(9)	(10)	(9)	(10)	(9)
p	n.s.	n.s.	n.s.	<0.10	n.s.	n.s.
H.T.T.: r	-0.4672	+0.2701	+0.4038	+0.1573	+0.2774	+0.3482
df	(10)	(10)	(8)	(9)	(9)	(10)
p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.6:

<u>CATEGORY 2:</u>	<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.: r	+0.1080	+0.4327	+0.2657
df	(21)	(21)	(21)
p	n.s.	<0.05	n.s.
H.T.T.: r	+0.2383	+0.2512	+0.2866
df	(22)	(19)	(21)
p	n.s.	n.s.	n.s.

TABLE 37.7:

<u>CATEGORY 2:</u>	<u>White</u>	<u>Black</u>
H.I.T.: r	+0.1080	+0.3554
df	(21)	(44)
p	n.s.	<0.02
H.T.T.: r	+0.2383	+0.2603
df	(22)	(42)
p	n.s.	<0.10

TABLE 37.8:

<u>CATEGORY 2:</u>	<u>Boys</u>	<u>Girls</u>
H.I.T.: r	+0.4836	+0.4107
df	(34)	(31)
p	<0.01	<0.02
H.T.T.: r	-0.0001	+0.2841
df	(31)	(33)
p	n.s.	n.s.

TABLE 37.9:

CATEGORY 3:		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.0922	+0.3865	-0.1057	+0.3954	+0.0455	+0.1308
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
H.T.T.:	r	-0.1417	+0.1782	+0.5333	+0.2210	+0.3607	+0.1232
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.10:

CATEGORY 3:		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.1731	+0.1609	+0.0759
	df	(21)	(21)	(21)
	p	n.s.	n.s.	n.s.
H.T.T.:	r	-0.2049	+0.4073	+0.2609
	df	(22)	(19)	(21)
	p	n.s.	<0.10	n.s.

TABLE 37.11:

CATEGORY 3:		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.1731	+0.1288
	df	(21)	(44)
	p	n.s.	n.s.
H.T.T.:	r	-0.2049	+0.3054
	df	(22)	(42)
	p	n.s.	<0.05

TABLE 37.12:

CATEGORY 3:		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.2895	+0.5477
	df	(34)	(31)
	p	<0.10	<0.001
H.T.T.:	r	+0.2933	+0.2966
	df	(31)	(33)
	p	n.s.	<0.10

TABLE 37.13:

CATEGORY 4:	<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.: r	+0.1389	+0.3233	+0.2963	+0.0905	+0.0060	+0.3157
df	(10)	(9)	(10)	(9)	(10)	(9)
p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
H.T.T.: r	+0.2367	-0.0856	+0.0674	+0.1708	+0.4223	+0.2964
df	(10)	(10)	(8)	(9)	(9)	(10)
p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.14:

CATEGORY 4:	<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.: r	+0.2181	+0.1690	+0.1917
df	(21)	(21)	(21)
p	n.s.	n.s.	n.s.
H.T.T.: r	+0.1875	+0.1754	+0.3602
df	(22)	(19)	(21)
p	n.s.	n.s.	< 0.10

TABLE 37.15:

CATEGORY 4:	<u>White</u>	<u>Black</u>
H.I.T.: r	+0.2181	+0.1784
df	(21)	(44)
p	n.s.	n.s.
H.T.T.: r	+0.1875	+0.2980
df	(22)	(42)
p	n.s.	< 0.05

TABLE 37.16:

CATEGORY 4:	<u>Boys</u>	<u>Girls</u>
H.I.T.: r	+0.3487	+0.3092
df	(34)	(31)
p	< 0.05	< 0.10
H.T.T.: r	+0.3568	+0.2098
df	(31)	(33)
p	< 0.05	n.s.

TABLE 37.17:

<u>CATEGORY 5:</u>	<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.: r	+0.0641	+0.6398	+0.0570	+0.0106	-0.0670	+0.1185
df	(10)	(9)	(10)	(9)	(10)	(9)
p	n.s.	<0.05	n.s.	n.s.	n.s.	n.s.
H.T.T.: r	+0.7765	+0.1315	-0.0332	-0.0960	+0.3513	+0.1064
df	(10)	(10)	(8)	(9)	(9)	(10)
p	<0.01	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.18:

<u>CATEGORY 5:</u>	<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.: r	+0.3049	+0.0387	+0.0323
df	(21)	(21)	(21)
p	n.s.	n.s.	n.s.
H.T.T.: r	+0.4457	-0.0707	+0.2510
df	(22)	(19)	(21)
p	<0.05	n.s.	n.s.

TABLE 37.19:

<u>CATEGORY 5:</u>	<u>White</u>	<u>Black</u>
H.I.T.: r	+0.3049	+0.0350
df	(21)	(44)
p	n.s.	n.s.
H.T.T.: r	+0.4457	+0.1112
df	(22)	(42)
p	<0.05	n.s.

TABLE 37.20:

<u>CATEGORY 5:</u>	<u>Boys</u>	<u>Girls</u>
H.I.T.: r	+0.2915	+0.4561
df	(34)	(31)
p	n.s.	<0.01
H.T.T.: r	+0.1393	+0.2900
df	(31)	(33)
p	n.s.	<0.10

TABLE 37.21:

<u>CATEGORY 6:</u>		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.1561	+0.2114	+0.1568	+0.2633	+0.5193	+0.1820
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	n.s.	n.s.	n.s.	<0.10	n.s.
H.T.T.:	r	+0.4588	-0.0552	+0.2677	-0.1727	+0.2642	+0.6714
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	<0.02

TABLE 37.22:

<u>CATEGORY 6:</u>		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.1697	+0.1646	+0.2092
	df	(21)	(21)	(21)
	p	n.s.	n.s.	n.s.
H.T.T.:	r	+0.0333	-0.0756	+0.3110
	df	(22)	(19)	(21)
	p	n.s.	n.s.	n.s.

TABLE 37.23:

<u>CATEGORY 6:</u>		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.1697	+0.1801
	df	(21)	(44)
	p	n.s.	n.s.
H.T.T.:	r	+0.0333	+0.0329
	df	(22)	(42)
	p	n.s.	n.s.

TABLE 37.24:

<u>CATEGORY 6:</u>		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.3340	+0.2295
	df	(34)	(31)
	p	< 0.05	n.s.
H.T.T.:	r	+0.3432	+0.0345
	df	(31)	(33)
	p	< 0.10	n.s.

TABLE 37.25:

CATEGORY 7:		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.1496	+0.6401	-0.0953	+0.4691	+0.3839	+0.0785
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	<0.05	n.s.	n.s.	n.s.	n.s.
H.T.T.:	r	+0.0739	-0.0069	+0.6446	+0.3835	+0.5952	+0.5097
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	<0.05	n.s.	<0.10	<0.10

TABLE 37.26:

CATEGORY 7:		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.3067	+0.1387	+0.2571
	df	(21)	(21)	(21)
	p	n.s.	n.s.	n.s.
H.T.T.:	r	+0.1125	+0.4204	+0.4805
	df	(22)	(19)	(19)
	p	n.s.	<0.10	<0.05

TABLE 37.27:

CATEGORY 7:		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.3067	+0.1913
	df	(21)	(44)
	p	n.s.	n.s.
H.T.T.:	r	+0.1125	+0.4471
	df	(22)	(42)
	p	n.s.	<0.01

TABLE 37.28:

CATEGORY 7:		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.3193	+0.3878
	df	(34)	(31)
	p	<0.10	<0.05
H.T.T.:	r	+0.3735	+0.5754
	df	(31)	(33)
	p	<0.05	<0.001

TABLE 37.29:

<u>CATEGORY 8:</u>		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.3700	+0.2915	+0.3267	+0.3268	-0.4476	-0.0319
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
H.T.T.:	r	-0.2383	-0.1253	+0.1364	+0.2034	-0.1983	+0.3197
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.30:

<u>CATEGORY 8:</u>		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.3611	+0.2968	-0.2568
	df	(21)	(21)	(21)
	p	<0.10	n.s.	n.s.
H.T.T.:	r	-0.1639	+0.1024	+0.0251
	df	(22)	(19)	(21)
	p	n.s.	n.s.	n.s.

TABLE 37.31:

<u>CATEGORY 8:</u>		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.3611	+0.0706
	df	(21)	(44)
	p	< 0.10	n.s.
H.T.T.:	r	-0.1639	+0.0470
	df	(22)	(42)
	p	n.s.	n.s.

TABLE 37.32:

<u>CATEGORY 8:</u>		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.3708	+0.4026
	df	(34)	(31)
	p	< 0.05	< 0.02
H.T.T.:	r	+0.0852	+0.3834
	df	(31)	(33)
	p	n.s.	< 0.05

TABLE 37.33:

<u>CATEGORY 9:</u>		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.2358	+0.1816	+0.3109	+0.7407	+0.3927	+0.3934
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	n.s.	n.s.	<0.01	n.s.	n.s.
H.T.T.:	r	+0.1970	+0.0010	+0.6323	+0.3974	+0.0700	+0.3835
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	<0.05	n.s.	n.s.	n.s.

TABLE 37.34:

<u>CATEGORY 9:</u>		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.2317	+0.3616	+0.3394
	df	(21)	(21)	(21)
	p	n.s.	n.s.	n.s.
H.T.T.:	r	+0.1577	+0.4591	+0.1451
	df	(22)	(19)	(21)
	p	n.s.	<0.05	n.s.

TABLE 37.35:

<u>CATEGORY 9:</u>		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.2317	+0.3021
	df	(21)	(44)
	p	n.s.	<0.05
H.T.T.:	r	+0.1577	+0.2600
	df	(22)	(42)
	p	n.s.	<0.10

TABLE 37.36:

<u>CATEGORY 9:</u>		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.3428	+0.4298
	df	(34)	(31)
	p	<0.05	<0.02
H.T.T.:	r	+0.4384	+0.3381
	df	(31)	(33)
	p	<0.02	<0.05

TABLE 37.37:

CATEGORY 10:		<u>E.B.</u>	<u>E.G.</u>	<u>A.B.</u>	<u>A.G.</u>	<u>WIB.</u>	<u>WIG.</u>
H.I.T.:	r	+0.2388	+0.2641	+0.0052	+0.4809	-0.0049	+0.2809
	df	(10)	(9)	(10)	(9)	(10)	(9)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
H.T.T.:	r	-0.3883	-0.4373	+0.1273	-0.1603	+0.3096	+0.1601
	df	(10)	(10)	(8)	(9)	(9)	(10)
	p	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

TABLE 37.38:

CATEGORY 10:		<u>European</u>	<u>Asian</u>	<u>West Indian</u>
H.I.T.:	r	+0.2727	+0.1951	+0.1462
	df	(21)	(21)	(21)
	p	n.s.	n.s.	n.s.
H.T.T.:	r	-0.3450	-0.0125	+0.2538
	df	(22)	(19)	(21)
	p	< 0.10	n.s.	n.s.

TABLE 37.39:

CATEGORY 10:		<u>White</u>	<u>Black</u>
H.I.T.:	r	+0.2727	+0.1686
	df	(21)	(44)
	p	n.s.	n.s.
H.T.T.:	r	-0.3450	+0.1320
	df	(22)	(42)
	p	0.10	n.s.

TABLE 37.40:

CATEGORY 10:		<u>Boys</u>	<u>Girls</u>
H.I.T.:	r	+0.3691	+0.3336
	df	(34)	(31)
	p	< 0.05	< 0.10
H.T.T.:	r	+0.0169	+0.1547
	df	(31)	(33)
	p	n.s.	n.s.

APPENDIX 38:

Levels of significance of Pearson Correlation Coefficients between self-concept scores and categories of interaction used by highly tolerant (HTT) and highly intolerant teachers (HIT):

		HTT	EB	EG	AB	AG	WIB	WIG	E	A	WI	Wh	B1	B	G	
CATEGORIES OF INTERACTION	1															
	2												.10			
	3									.10			.05		.10	
	4										.10		.05	.05		
	5		.01							.05			.05		.10	
	6														.10	
	7				.05		.10	.10		.10	.05		.01	.05	.001	
	8														.05	
	9				.05					.05				.10	.02	.05
	10									.10			.10			
		HIT														
CATEGORIES OF INTERACTION	1					.10							.10			
	2					.10				.05			.02	.01	.02	
	3													.10	.001	
	4													.05	.10	
	5			.05											.01	
	6						.10								.05	
	7			.05										.10	.05	
	8								.10			.10		.05	.02	
	9					.01							.05	.05	.02	
	10													.05	.10	

## APPENDIX: 39:

Interaction observations in twelve multi-ethnic classes taught by highly tolerant teachers:

e-grp.	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	Ind. teach.	Class teach.	Total
N	111	88	28	37	38	38			340
%	32.64	25.88	8.24	10.88	11.18	11.18			100.00
CATS.									
1 A	13	47	24	0	14	27	125	20	145
B	10.4	37.6	19.2	0.0	11.2	21.6	86.21	13.79	100.00
C	0.15	0.60	0.55	0.0	0.23	0.69	0.35	0.12	0.28
2 A	265	303	234	220	264	169	1455	136	1591
B	18.22	20.82	16.08	15.12	18.14	11.62	91.45	8.55	100.00
C	2.96	3.88	5.34	5.26	4.36	4.35	4.13	0.78	3.03
3 A	507	454	238	338	239	268	2044	341	2385
B	24.80	22.22	11.64	16.54	11.69	13.11	85.7	14.3	100.00
C	5.67	5.81	5.43	8.08	3.95	6.89	5.80	1.97	4.54
4 A	1126	815	622	539	911	615	4628	2464	7092
B	24.33	17.61	13.44	11.65	19.68	13.29	65.26	34.74	100.00
C	12.59	10.43	14.20	12.89	15.05	15.82	13.13	14.21	13.48
5 A	2433	2280	837	934	1438	1080	9002	7114	16116
B	27.02	25.33	9.30	10.38	15.97	12.00	55.86	44.14	100.00
C	27.21	29.19	19.11	22.33	23.75	27.79	25.53	41.02	30.64
6 A	736	642	413	332	621	234	2978	2363	5341
B	24.71	21.56	13.87	11.15	20.85	7.86	55.76	44.24	100.00
C	8.23	8.22	9.43	7.94	10.26	6.02	8.45	13.63	10.15
7 A	742	533	228	121	490	90	2204	679	2883
B	33.67	24.18	10.35	5.49	22.23	4.08	76.45	23.55	100.00
C	8.30	6.82	5.21	2.89	8.10	2.32	6.25	3.92	5.48
8 A	1631	1466	1082	833	1043	627	6682	435	7117
B	24.41	21.94	16.19	12.47	15.61	9.38	93.89	6.11	100.00
C	18.24	18.76	24.70	19.92	17.23	16.13	18.95	2.51	13.53
9 A	1003	866	392	470	618	538	3887	0	3887
B	25.81	22.28	10.08	12.09	15.90	13.84	100.00	0.0	100.00
C	11.22	11.08	8.95	11.24	10.21	13.84	11.03	0.0	7.39
10 A	485	407	310	395	415	239	2251	3788	6039
B	21.54	18.08	13.77	17.55	18.44	10.62	37.27	62.73	100.00
C	5.43	5.21	7.08	9.45	6.86	6.15	6.38	21.84	11.48
Tot. A	8941	7813	4380	4132	6053	3887	35256	17340	52596
B	25.36	22.16	12.42	11.86	17.17	11.03	67.03	32.97	100.00

Read line A across & down: (Observations for each category of interaction related to boys and girls in each ethnic group, individual and whole class teaching).

Read line B across: (Observations for each category of interaction related to boys and girls in each ethnic group as a percentage of individual teaching and percentage of individual and whole class teaching).

Read line C down: (Observations for each category of interaction as a percentage of the total interaction used with any one group of boys or girls in each ethnic group, individual and whole class teaching).

## APPENDIX 40:

Interaction observations in twelve multi-ethnic classes taught by highly intolerant teachers:

e.grp.	E.B.	E.G.	A.B.	A.G.	WIB.	WIG.	Ind. teach.	Class teach.	Total
N	86	71	39	39	44	40			319
%	26.95	22.26	12.23	12.23	13.79	12.54			100.00
CATS.									
1 A	17	22	0	24	0	0	63	0	63
B	26.98	34.92	0.0	38.10	0.0	0.0	100.00	0.0	100.00
C	0.19	0.36	0.0	0.74	0.0	0.0	0.21	0.0	0.13
2 A	154	124	55	77	56	16	482	68	550
B	31.94	25.73	11.41	15.98	11.62	3.32	87.64	12.36	100.00
C	1.72	2.01	1.23	2.36	1.60	0.49	1.63	0.34	1.11
3 A	413	364	157	149	119	67	1269	391	1660
B	32.55	28.68	12.37	11.74	9.38	5.28	76.45	23.55	100.00
C	4.61	5.91	3.52	4.57	3.40	2.03	4.28	1.98	3.36
4 A	1350	877	825	631	608	596	4887	3461	8348
B	27.62	17.95	16.83	12.91	12.44	12.20	58.54	41.46	100.00
C	15.07	14.24	18.47	19.36	17.37	18.07	16.49	17.54	16.91
5 A	1836	1394	583	728	698	531	5770	9845	15615
B	31.82	24.16	10.10	12.62	12.10	9.20	36.95	63.05	100.00
C	20.49	22.63	13.05	22.33	19.94	16.10	19.46	49.90	31.63
6 A	799	733	513	283	481	741	3550	2564	6114
B	22.51	20.65	14.45	7.97	13.55	20.87	58.06	41.94	100.00
C	8.92	11.90	11.49	8.68	13.74	22.47	11.98	13.00	12.38
7 A	557	240	189	186	278	255	1705	608	2313
B	32.66	14.08	11.09	10.91	16.30	14.96	73.71	26.29	100.00
C	6.22	3.90	4.23	5.71	7.94	7.73	5.75	3.08	4.68
8 A	2312	1552	1412	737	859	823	7695	297	7992
B	30.05	20.17	18.35	9.58	11.16	10.69	96.28	3.72	100.00
C	25.81	25.19	31.62	22.60	24.53	24.95	25.96	1.51	16.19
9 A	826	551	416	206	209	70	2278	0	2278
B	36.26	24.19	18.26	9.04	9.18	3.07	100.00	0.0	100.00
C	9.22	8.94	9.31	6.32	5.97	2.12	7.68	0.0	4.62
10 A	694	303	316	239	193	199	1944	2496	4440
B	35.69	15.59	16.26	12.29	9.93	10.24	43.78	56.22	100.00
C	7.75	4.92	7.08	7.33	5.51	6.03	6.55	12.55	8.99
Tot. A	8958	6160	4466	3260	3501	3293	29643	19730	49373
B	30.22	20.78	15.06	11.00	11.81	11.13	60.04	39.96	100.00

Read line A across & down: (Observations for each category of interaction related to boys and girls in each ethnic group, individual and whole class teaching).

Read line B across: (Observations for each category of interaction related to boys and girls in each ethnic group as a percentage of individual teaching and percentage of individual and whole class teaching).

Read line C down: (Observations for each category of interaction as a percentage of the total interaction used with any one group of boys or girls in each ethnic group, individual and whole class teaching).

## APPENDIX 41:

Spearman rank order correlation coefficients of classroom interaction categories as used by highly tolerant (HTT) and highly intolerant (HIT) teachers with individual boys and girls of European, Asian and West Indian origins:

Categories	Rank order of classroom interaction categories											
	E.B.		E.G.		A.B.		A.G.		WIB.		WIG.	
	HTT	HIT	HTT	HIT	HTT	HIT	HTT	HIT	HTT	HIT	HTT	HIT
1	10	8	1	1	1	10	10	1	10	10	1	10
2	9	5	8	3	3	7	3	2	5	5	6	8
3	4	4	5	2	7	6	2	6	9	8	4	3
4	7	9	10	8	6	3	6	3	3	3	3	7
5	2	6	2	4.5	10	9	8	4	6	4	5	6
6	5	10	7	6	4.5	5	7	10	2	2	9	1
7	1	3	3	10	8	8	9	7	1	1	10	2
8	6	7	6	7	2	1	4	8	8	6	8	4
9	3	1	4	4.5	9	2	5	9	7	9	2	9
10	8	2	9	9	4.5	4	1	5	4	7	7	5
rho	+0.33		+0.39		+0.04		-0.12		+0.98		-0.82	
p	N.S.		N.S.		N.S.		N.S.		< 0.01		< 0.01	

e-groups	HTT		HIT	
	rho	p	rho	p
EB/EG	+0.38	N.S.	-0.13	N.S.
AB/AG	+0.09	N.S.	-0.55	N.S.
WIB/WIG	-0.65	< 0.05	+0.61	< 0.05

APPENDIX 42: (See also Table 26)

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by highly tolerant (HTT) and highly intolerant teachers (HIT):

E-grp	Tol. grp	$\bar{x}$	S.D.	N.	S.E.	df	t-value	significance
EB	HTT	61.37	5.41	12	1.56	22	2.506	p < 0.05
	HIT	66.77	5.16	12	1.49			
EG	HTT	63.54	4.58	12	1.32	21	0.152	N.S.
	HIT	63.85	5.36	11	1.62			
AB	HTT	61.36	9.99	10	3.16	20	1.209	N.S.
	HIT	57.57	3.93	12	1.36			
AG	HTT	59.81	5.78	11	1.74	20	1.107	N.S.
	HIT	57.36	4.50	11	1.36			
WIB	HTT	61.38	6.48	11	1.96	21	2.694	p < 0.02
	HIT	52.25	9.35	12	3.06			
WIG	HTT	65.11	7.02	12	2.03	21	3.063	p < 0.01
	HIT	54.55	9.44	11	2.85			

APPENDIX 43: (See also Table 27)

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by highly intolerant teachers:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	66.77	5.16	12	1.49		21	22	21	22	21
E.G.	63.85	5.36	11	1.62	1.332		21	20	21	20
A.B.	57.57	3.93	12	1.36	4.912†	3.222*		21	22	21
A.G.	57.36	4.50	11	1.36	4.641†	3.073*	0.118		21	20
WIB.	52.25	9.35	12	3.06	4.701†	3.601*	1.815	1.643		21
WIG.	54.55	9.44	11	2.85	3.901†	2.842@	1.019	0.893	0.585	
						t-values				

Significance:  $p < 0.001 = \dagger$ ;  $p < 0.01 = *$ ;  $p < 0.02 = @$ .

APPENDIX 44: (See also Table 27)

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by highly tolerant teachers:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	61.37	5.41	12	1.56		22	20	21	21	22
E.G.	63.54	4.58	12	1.32	1.060		20	21	21	22
A.B.	61.36	9.99	10	3.16	0.003	0.678		19	19	20
A.G.	59.81	5.78	11	1.74	0.667	1.721	0.439		20	21
WIB.	61.38	6.48	11	1.96	0.007	0.926	0.007	0.601		21
WIG.	65.11	7.02	12	2.03	1.463	0.650	1.033	1.965	1.318	
						t-values				

Significance: None of the above t-values are significant at the 5 percent level or above.



APPENDIX 46:

Spearman rank order correlations between pupils' self-concept scores and interaction ratios from the individual teaching of highly tolerant (HTT) and highly intolerant teachers (HIT):

		Rank Order				
e-grp.		S-C	TRR	TQR	PIR	TAR
Highly tolerant teachers	EB	3	5	5	2	3
	EG	5	4	6	4	4
	AB	4	3	1	6	2
	AG	6	2	3	5	5
	WIB	2	6	2	3	1
	WIG	1	1	4	1	6
	rho			-0.086	+0.086	+0.771
p			n.s.	n.s.	n.s.	n.s.
Highly intolerant teachers	EB	1	3	5	1	3
	EG	2	2	6	2	4
	AB	3	4	1	3	6
	AG	4	1	4	4	5
	WIB	6	5	3	5	2
	WIG	5	6	2	6	1
	rho			+0.543	-0.543	+0.943
p			n.s.	n.s.	< 0.01	n.s.

S-C - Self-concept  
 TRR - Teacher response ratio  
 TQR - Teacher question ratio  
 PIR - Pupil initiation ratio  
 TAR - Teacher authority ratio

**APPENDIX 47: Interaction indices for highly tolerant (HTT) and highly intolerant teachers (HIT), with their differences (d), related to the individual teaching of boys and girls of European, Asian and West Indian origins:**

E-grp.	Teacher response ratio (TRR):		Teacher question ratio (TQR):		Pupil initiation ratio (PIR):		Teacher authority ratio (TAR):					
	HTT	HIT	d	HTT	HIT	d	HTT	HIT	d			
EB	35.69	30.10	-5.59	31.64	42.37	+10.73	38.08	26.32	-11.76	37.79	42.48	+4.69
EG	41.63	34.39	-7.24	26.33	38.62	+12.29	37.14	26.20	-10.94	34.01	41.12	+7.11
AB	43.62	23.19	-20.43	42.63	58.59	+15.96	26.59	22.76	-3.83	43.37	35.33	-8.04
AG	55.19	34.77	-20.42	36.59	46.43	+9.84	36.07	21.85	-14.22	32.66	39.18	+6.52
WIB	31.76	18.74	-13.02	38.78	46.55	+7.77	37.21	19.57	-17.64	43.59	52.09	+8.50
WIG	58.88	7.69	-51.19	36.28	52.88	+16.60	46.18	7.84	-38.34	23.08	65.23	+42.15
$\bar{x}$	44.46	24.81	-19.65	35.38	47.57	+12.19	36.88	20.76	-16.12	35.75	45.91	+10.16
	t = 3.214; p < 0.01			t = 3.254; p < 0.01			t = 4.265; p < 0.01			t = 1.854; p < 0.10		

**APPENDIX 48: Interaction indices for teachers holding tenderminded (Ten.M) and toughminded (Tgh.M) attitudes towards education, with their differences (d), related to the individual teaching of boys and girls of European, Asian and West Indian origins:**

E-grp.	Teacher response ratio (TRR):			Teacher question ratio (TQR):			Pupil initiation ratio (PIR):			Teacher authority ratio (TAR):		
	Ten.M	Tgh.M	d	Ten.M	Tgh.M	d	Ten.M	Tgh.M	d	Ten.M	Tgh.M	d
EB	26.64	27.59	+0.95	28.45	21.80	-6.65	29.72	32.37	+2.65	41.11	46.21	+5.10
EG	34.37	35.72	+1.35	28.54	28.00	-0.54	62.22	31.76	-31.46	39.01	37.76	-1.31
AB	31.32	23.85	-7.47	30.97	37.94	+6.97	24.59	27.54	+2.95	45.19	48.22	+3.03
AG	35.57	31.77	-3.80	36.75	31.21	-5.54	25.88	24.17	-1.71	45.76	37.39	-8.37
WIB	21.08	15.10	-5.98	34.09	34.20	+0.11	36.91	31.86	-5.05	52.58	53.32	+0.74
WIG	37.43	20.98	-16.45	31.81	35.85	+4.04	34.65	30.24	-4.41	46.05	41.67	-4.38
$\bar{x}$	31.07	25.84	-5.23	31.77	31.50	-0.27	35.66	29.66	-6.00	44.95	44.10	-0.85
	t = 1.323; n.s.			t = 0.098; n.s.			t = 1.033; n.s.			t = 0.267; n.s.		

## APPENDIX 49:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by teachers holding tenderminded (Ten.M) and teaching holding toughminded (Tgh.M) attitudes towards education:

E-grp.	Att.grp.	$\bar{x}$	S.D.	N.	S.E.	df	t-value	significance
EB	Ten.M	62.73	6.20	21	1.35	68	0.203	N.S.
	Tgh.M	62.35	7.36	49	1.05			
EG	Ten.M	61.26	7.02	21	1.53	67	0.765	N.S.
	Tgh.M	62.50	5.63	48	0.81			
AB	Ten.M	59.93	6.04	18	1.42	59	0.032	N.S.
	Tgh.M	59.86	6.53	43	0.96			
AG	Ten.M	61.00	6.28	17	1.52	60	2.285	p<0.05
	Tgh.M	56.64	6.72	45	1.00			
WIB	Ten.M	60.77	7.32	19	1.68	64	2.204	p<0.05
	Tgh.M	56.07	7.86	47	1.15			
WIG	Ten.M	60.54	7.26	21	1.59	63	0.043	N.S.
	Tgh.M	60.64	9.70	44	1.46			

APPENDIX 50:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers holding tenderminded attitudes towards education:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	62.73	6.20	21	1.35		40	37	36	38	40
E.G.	61.26	7.02	21	1.53	0.699		37	36	38	40
A.B.	59.93	6.04	18	1.42	1.386	0.616		33	35	37
A.G.	61.00	6.28	17	1.52	0.826	0.117	0.501		34	36
WIB.	60.77	7.32	19	1.68	0.894	0.214	0.369	0.010		38
WIG.	60.54	7.26	21	1.59	1.026	0.322	0.275	0.203	0.097	
						t-values				

Significance: None of the above t-values are significant at the 5 percent level or above.

APPENDIX 51:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers holding toughminded attitudes towards education:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	62.35	7.36	49	1.05		95	90	92	94	91
E.G.	62.50	5.63	48	0.81	0.110		89	91	93	90
A.B.	59.87	6.53	43	0.96	1.684	2.044 $\neq$		86	88	85
A.G.	56.64	6.72	45	1.00	3.877 $\dagger$	4.523 $\dagger$	2.262 $\dagger$		90	87
WIB.	56.07	7.86	47	1.15	3.996 $\dagger$	4.539 $\dagger$	2.451 $\circ$	0.365		89
WIG.	60.64	9.70	44	1.46	0.953	1.123	0.429	2.241 $\neq$	2.446 $\circ$	
						t-values				

Significance:  $p < 0.001 = \dagger$ ;  $p < 0.02 = \circ$ ;  $p < 0.05 = \neq$ .

**APPENDIX 52:** Interaction indices for teachers holding radical (Rad.) and teachers holding conservative (Con.) attitudes towards education, with their differences (d), related to the individual teaching of boys and girls of European, Asian and West Indian origins:

E-grp.	Teacher response ratio (TRR):		Teacher question ratio (TQR):		Pupil initiation ratio (PIR):		Teacher authority ratio (TAR):					
	Rad.	Con.	d	Rad.	Con.	d	Rad.	Con.				
EB	27.90	26.58	-1.32	31.40	29.81	-1.59	30.87	31.10	41.55	45.37	+0.23	-3.82
EG	36.60	30.77	-5.83	29.29	26.36	-2.93	35.03	32.80	36.03	38.65	-2.23	-2.62
AB	27.79	23.81	-3.98	33.65	41.55	+7.90	28.91	19.97	49.92	45.92	-8.94	+4.00
AG	33.66	28.81	-4.85	30.62	37.13	+6.51	23.48	22.30	40.23	38.37	-1.18	+1.86
WIB	17.37	20.82	+3.45	32.50	34.26	+1.76	35.05	26.10	46.57	54.10	-8.95	-7.53
WIG	27.11	22.07	-5.04	34.22	38.01	+3.79	32.95	23.82	48.82	41.22	-9.13	+7.60
$\bar{x}$	28.41	25.48	-2.93	31.95	34.52	+2.57	31.05	26.02	43.85	43.94	-5.03	-0.09
	t = 1.016; n.s.			t = 1.066; n.s.			t = 1.840; p < 0.10		t = 0.026; n.s.			

APPENDIX 53:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by teachers holding conservative (Con.) and teachers holding radical (Rad.) attitudes towards education:

E-grp.	Att.grp.	$\bar{x}$	S.D.	N.	S.E.	df	t-value	significance
EB	Con.	63.80	5.25	17	1.27	68	0.893	N.S.
	Rad.	62.04	7.47	53	1.03			
EG	Con.	60.59	4.57	16	1.14	67	1.138	N.S.
	Rad.	62.59	6.43	53	0.88			
AB	Con.	58.67	5.61	17	1.36	59	0.919	N.S.
	Rad.	60.36	6.61	44	1.00			
AG	Con.	56.92	5.67	15	1.46	60	0.585	N.S.
	Rad.	58.13	7.20	47	1.05			
WIB	Con.	55.96	9.24	16	2.31	64	0.835	N.S.
	Rad.	57.90	7.50	50	1.06			
WIG	Con.	56.98	9.11	15	2.35	63	1.797	p < 0.10
	Rad.	61.69	8.66	50	1.22			

## APPENDIX 54:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers by teachers holding conservative attitudes towards education:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB	WIG.
E.B.	63.80	5.25	17	1.27		31	32	30	31	30
E.G.	60.59	4.57	16	1.14	1.167		31	29	30	29
A.B.	58.67	5.61	17	1.36	2.675@	1.175		30	31	30
A.G.	56.92	5.67	15	1.46	3.450*	1.927	0.848		29	28
WIB.	55.96	9.24	16	2.31	2.928*	1.741	0.993	0.335		29
WIG.	56.98	9.11	15	2.35	2.547@	1.361	0.616	0.023	0.301	
						t-values				

Significance:  $p < 0.01 = *$ ;  $p < 0.02 = @$ .

## APPENDIX 55:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers holding radical attitudes towards education:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	62.04	7.47	53	1.03		104	95	98	101	101
E.G.	62.59	6.43	53	0.88	0.403		95	98	101	101
A.B.	60.36	6.61	44	1.00	1.150	1.663		89	92	92
A.G.	58.13	7.20	47	1.05	2.629*	3.238*	1.520		95	95
WIB.	57.90	7.50	50	1.06	2.779*	3.381†	1.662	0.154		98
WIG.	61.69	8.66	50	1.22	0.212	0.590	0.823	2.176/	2.322/	
						t-values				

Significance:  $p < 0.001 = †$ ;  $p < 0.01 = *$ ;  $p < 0.05 = /$

**APPENDIX 56:** Interaction indices for teachers holding naturalistic (Nat.) and teachers holding idealistic (Idl.) attitudes towards education, with their differences (d), related to the individual teaching of boys and girls of European, Asian and West Indian origins:

E-Grp.	Teacher response ratio (TRR):		Teacher question ratio (TQR):		Pupil initiation ratio (PIR):		Teacher authority ratio (TAR):					
	Nat.	Idl.	d	Nat.	Idl.	d	Nat.	Idl.	d			
EB	31.98	25.02	-6.96	32.57	30.03	-2.54	32.78	31.32	-1.46	44.12	44.34	+0.22
EG	39.63	33.00	-6.63	32.11	27.10	-5.01	38.09	32.38	-5.71	42.30	36.13	-6.17
AB	33.95	23.15	-10.80	44.85	36.77	-8.08	24.70	27.52	+2.82	40.31	49.78	+9.47
AG	46.29	28.36	-17.93	39.75	30.38	-9.35	33.37	21.97	-11.40	40.59	38.48	-2.11
WIB	23.76	14.53	-9.23	35.99	33.35	-2.64	34.42	32.72	-1.72	52.75	54.50	+1.75
WIG	31.61	22.81	-8.80	38.75	41.37	+2.62	39.14	24.86	-14.28	44.85	41.71	-3.14
$\bar{x}$	34.54	24.48	-10.06	37.33	33.17	-4.16	33.75	28.46	-5.12	44.15	44.16	+0.01
	t = 2.496; p < 0.05			t = 1.441; n.s.			t = 1.914; p < 0.10			t = 0.000; n.s.		

APPENDIX 57:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins taught by teachers holding idealistic (Idl.) and teachers holding naturalistic (Nat.) attitudes towards education:

E-grp.	Att.grp.	$\bar{x}$	S.D.	N.	S.E.	df	t-value	significance
EB	Idl.	61.90	7.15	45	1.07	68	0.889	N.S.
	Nat.	63.48	6.70	25	1.34			
EG	Idl.	62.40	6.06	44	0.91	68	0.485	N.S.
	Nat.	61.64	6.17	25	1.23			
AB	Idl.	58.98	6.38	41	1.00	59	1.595	N.S.
	Nat.	61.74	6.00	20	1.34			
AG	Idl.	56.59	6.10	41	0.95	60	2.020	p < 0.05
	Nat.	60.26	7.63	21	1.66			
WIB	Idl.	56.46	8.69	43	1.33	64	1.332	N.S.
	Nat.	59.22	6.12	23	1.28			
WIG	Idl.	59.56	8.23	45	1.23	66	1.267	N.S.
	Nat.	62.52	9.94	23	2.07			

APPENDIX 58:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers holding idealistic attitudes towards education:

e.grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	61.90	7.15	45	1.07		87	84	84	86	88
A.G.	62.40	6.06	44	0.91	0.347		83	83	85	87
A.B.	58.98	6.38	41	1.00	1.971	2.505@		80	82	84
A.G.	56.59	6.10	41	0.95	3.643†	4.347†	1.708		82	84
WIB.	56.46	8.69	43	1.33	3.174*	3.657†	1.486	0.076		86
WIG.	59.56	8.23	45	1.23	1.403	1.805	0.356	1.839	1.664	
						t-values				

Significance:  $p < 0.001 = †$ ;  $p < 0.01 = *$ ;  $p < 0.02 = @$ .

APPENDIX 59:

Difference between the mean self-concept scores of boys and girls of European, Asian and West Indian origins in classes taught by teachers holding naturalistic attitudes towards education:

e-grp.	$\bar{x}$	S.D.	N.	S.E.	E.B.	d.f.				
						E.G.	A.B.	A.G.	WIB.	WIG.
E.B.	63.48	6.70	25	1.34		48	43	44	46	46
E.G.	61.64	6.17	25	1.23	0.985		43	44	46	46
A.B.	61.74	6.00	20	1.34	0.199	0.053		39	41	41
A.G.	60.26	7.63	21	1.66	1.488	0.665	0.673		42	42
WIB.	59.22	6.12	23	1.28	2.242/	1.336	1.329	0.489		44
WIG.	62.52	9.94	23	2.07	0.385	0.362	0.297	0.821	1.326	
						t-values				

Significance:  $p < 0.05 = /$ .

APPENDIX 60:

Pupils of different ethnic origins recording significantly different levels of self-concept in classes taught by teachers holding different attitudes towards education:

Teachers' attitudes towards education							
E-grp.	Tenderminded	Toughminded	Radical	Conservative	Naturalism	Idealism	
EB ^ ^ ^ ^		AG WIB	AG WIB	AB AG WIB WIG	WIB	AG WIB	
EG ^ ^ ^		AB AG WIB	AG WIB			AB AG WIB	
AB ^ ^		AG WIB					
AG							
WIB							
WIG ^ ^		AG WIB	AG WIB				

## APPENDIX 61:

Difference in the mean self-concept scores of girls of Asian origin in classes taught by teachers holding different types of attitudes towards education:

Att. grp.	$\bar{x}$	S.D.	N.	S.E.	Ten.	d.f.				
						Tgh.	Con.	Rad.	Id.	Nat.
Ten.	61.00	6.28	17	1.52		60	30	62	56	36
Tgh.	56.64	6.72	45	1.00	2.285/		58	90	84	64
Con.	56.92	5.67	15	1.46	1.861¶	0.142		60	54	34
Rad.	58.13	7.20	47	1.05	1.435	1.014	0.585		86	66
Id.	56.59	6.10	41	0.95	2.442@	0.033	0.177	1.059		60
Nat.	60.26	7.63	21	1.66	0.313	1.923¶	1.397	1.092	2.020/	
						t-values				

Significance:  $p < 0.02 = @$ ;  $p < 0.05 = /$ ;  $p < 0.10 = ¶$ .

## APPENDIX 62:

Difference in the mean self-concept scores of boys of West Indian origin in classes taught by teachers holding different types of attitudes towards education:

Att. grp.	$\bar{x}$	S.D.	N.	S.E.	Ten.	d.f.				
						Tgh.	Con.	Rad.	Id.	Nat.
Ten.	60.77	7.32	19	1.68		64	33	67	60	40
Tgh.	56.07	7.86	47	1.15	2.204/		61	95	88	68
Con.	55.96	9.24	16	2.31	1.668	0.048		64	57	37
Rad.	57.90	7.50	50	1.06	1.410	1.155	0.835		91	71
Id.	56.46	8.69	43	1.33	1.852¶	0.221	0.193	0.830		64
Nat.	59.22	6.12	23	1.28	0.728	1.662¶	1.292	0.732	1.332	
						t-values				

Significance:  $p < 0.05 = /$ ;  $p < 0.10 = ¶$



APPENDIX 64:

Difference in the mean self-concept scores of all children in classes taught by highly tolerant teachers (HTT) and of all children in classes taught by highly intolerant teachers (HIT):

Tol. grp.	$\bar{x}$	S.D.	N.	S.E.	df	t-value	significance
HTT	62.16	6.59	68	0.800	135	2.678	p < 0.01
HIT	58.73	8.17	69	0.983			

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