

RACIAL ATTITUDE
DEVELOPMENT IN
BLACK, WHITE AND
COLOURED
SOUTH AFRICAN
CHILDREN

SALLYANNE AARONS

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ABSTRACT

This study described the racial attitude development of South African primary school children in three racial groups. The sample consisted of black, white and coloured children from the Cape Town area. The study aimed to examine developmental patterns of own-group preference and out-group prejudice, as well as the efficacy of the Katz- Zalk Projective Prejudice Test (Katz and Zalk, 1976) in the South African context. Children of both sexes were included. Five age-groups were represented; 6 - 7 year olds, 7 - 8 year olds, 9 - 10 year olds, 10 - 11 year olds and 11 - 12 year olds. The instrument, (Katz-Zalk Projective Prejudice Test, Katz and Zalk, 1976) included slides showing black and white children in ambiguous school situations, and a corresponding questionnaire in which the subject indicated which child was the recipient or initiator of the action depicted in the slides. The test was administered to groups of approximately 30 children by a female test administrator of the same race as the subjects. The results from 416 subjects were analysed using a multivariate analysis of variance followed by univariate analyses of variance and Student Newman-Keuls follow up tests. These findings indicated the developmental pattern of own-group preference and out-group prejudice in the sample. Results from the white group showed a distinct trend, characterised by high own-group preference and high out-group prejudice. Both the preference and prejudice declined with age.

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CHAPTER 1: INTRODUCTION

The primary aim of this study is to describe racial attitudes in a sample of primary school children in South Africa. The sample consists of 3 ethnic groups namely black, coloured and white children^{1*}, aged between six and eleven. The research aims to identify developmental patterns in racial attitudes and to describe these comparatively. In addition, the research aims to establish the efficacy of the Katz-Zalk Projective Prejudice Test (Katz & Zalk, 1976) in the South African context.

This research is reported in chapters four and five. Before discussing this research the theoretical and empirical literature on racial attitude development is covered in chapters two and three. The remainder of this chapter broadly introduces this area, its relevance and background, and clarifies certain central concepts and issues.

Racial attitudes and their development in children should be an area of concern in a growing and changing South Africa. The attitude of the new generation concerning race is an important contributor to the future of the country. It is however an area that has not been researched widely in South Africa. There does not appear to be any study in South Africa that has incorporated children of three ethnic groups on a comparative basis. The research reported in this dissertation attempts to bridge this crucial gap.

¹ In South Africa there are four ethnically designated groups that are defined in the statute books. These are Black, White, Coloured and Asian. These are external designations differentiated along the lines of skin colour. These differentiations therefore do not represent categorisations of the author.

In ethnic attitude research it is generally agreed that basic attitudes are developed in early childhood, and that early predispositions may form the basis of racial prejudice in adults (Katz, 1976). Milner (1975) suggests that when racism takes root in a majority culture, it pervades all the social and institutional aspects of that culture and is transmitted to future generations and affects even those people who have no conscious desire to be part of that racism.

The present research falls into the framework of a long tradition of research. The main thrust of research occurred in the U.S.A. in the twenty year period between the 1950's and the 1970's mainly as a result of the civil rights movement which was active during that period. The earliest studies were the Clark and Clark (1939) and Horowitz (1939) studies. These studies elicited children's preference and identification with concrete objects like dolls and line drawings and asked the child to indicate preference for the one representing their own-group or those representing relevant other groups.

The study of children's racial attitudes can be largely dichotomised into the two areas of research and theory. With the advent of the Clark studies, the research tradition in children's attitude development was mainly descriptive and usually did not test any particular theory.

Theories have been developed and adapted only after much of the research has been done. "... there has been very little methodological development, either in Europe or the United States. Essentially the same methods are currently employed as were originally introduced by Clark and Clark (1947)." (Milner, 1984, p. 93).

This study falls into the category of the purely exploratory. It aims to describe the patterns of racial attitude development in different race groups. These patterns can then be compared to the body of past research describing these patterns. The studies are mainly atheoretical and it is often difficult to integrate the findings into a theory of development or a theory of attitudes.

At the fundamental basis of race; attitudes and intergroup interaction there are the terms 'group' and 'group identification'. Tajfel (1982) defines the terms thus,

" A 'group' can be defined as such on the basis of criteria which are either external or internal. External criteria are the 'outside' designations such as bank clerks, hospital patients, members of a trades union, etc. Internal criteria are those of 'group identification'. In order to achieve the stage of 'identification', two components are necessary, and one is frequently associated with them. The two necessary components are: a cognitive one, in the sense of awareness of membership; and an evaluative one, in the sense that this awareness is related to some value connotations. The third component consists of an emotional investment in the awareness and evaluations. " (p. 2)

In the context of this study the term identification pertains to the child's sense of belonging to an ethnic group. When children misidentify they express an affiliation with an ethnic group other than their own. Similarly, preference corresponds to an ascription of positive attributes to a particular ethnic group, but this does not mean that all other groups are evaluated completely negatively.

The term ethnocentrism refers to a self-centredness in scaling values with relation to the in-group. Ethnocentrism refers to an exaggerated preference for the in-group and dislike of other groups.

Aboud (1988) defines ethnic awareness thus:

"In one sense, awareness refers to a conscious recognition of ethnicity in individuals and groups... Thus at a very simple level, being able to assign correctly the labels to the actual faces for pictures of various people indicates a basic form of perceptual ethnic awareness... one can be aware of ethnicity but evaluate it and react to it either positively or negatively... The awareness of one's own ethnicity may be even more importantly related to prejudice. Some believe that to acquire an ability to identify oneself ethnically, children need to highlight differences between themselves and others, and that the perceptual contrasts then spill over into attitude contrasts ... " (p. 6-7)

The above definitions are expressed as they are generally defined in the bulk of the literature.

In children, evaluation and affect are clearly evident and are useful to establish the existence and extent of racial attitudes and prejudice. There are problems however with the cognitive aspects of attitudes and prejudice as children may perceive certain similarities among people on the basis of one or two ethnically related attributes, but they may not be able to identify the attributes.

This means that children may express a negative attitude towards an ethnic group which they cannot identify. Children also discriminate more between people than do adults, that is children generalise less than adults (Novak and Richman, 1980).

In any society, the internal 'group identification' is based on what Tajfel (1978) calls a 'spiral', where the past (historical) and present (social, economic, political) differences between social groups are reflected in the attitudes, beliefs and views of the world held by members of these groups.

The way people behave and respond to their own and other groups is dependant on these 'subjective' effects of social conditions. This 'in-group', 'out-group' and 'intergroup' behaviour in turn contributes to the present and future relations between the groups.

The 'ingroup(s)' and 'outgroup(s)' in a society often do not exist in a state of harmonious equality. There is often one or more groups in a society that have the status of minority group. Prejudice arises when people respond negatively towards other people because of their ethnic affiliation.

Prejudice is an organised tendency to respond negatively toward a particular group or groups of people. This negativity is directed solely at people because of their ethnic affiliation and not because of any individual attribute, dislike or conflict.

Tajfel (1978), cites the following set of criteria in order to define a minority group:-

"1) Minorities are subordinate segments of complex state societies; 2) Minorities have special physical or cultural traits which are held in low esteem by the dominant segments of the society; 3) Minorities are self conscious units bound together by the special traits which their members share and by the special disabilities which these bring; 4) membership in a minority is transmitted by a rule of descent which is capable of affiliating succeeding generations even in the absence of readily apparent special cultural or physical traits; 5) minority peoples, by choice or necessity, tend to marry within the group." (p. 3)

It is possible to identify majority and minority groups in South Africa, according to these criteria. The white group whether they speak English or Afrikaans fall into the broad category of majority group. Those people with dark skin pigmentation are clearly minority groups in South Africa.

Tajfel's 'spiral' can be related to a history of colonialisation in Southern Africa, where a racist ideology was imposed by the white majority group on South African black people at every level of society. Black people experienced poorer socio-economic conditions, segregation, inequality and an inferior education. The racist ideology is very clear in the school context. As Geber and Newman (1980) note;

"The competitive school system encourages the adoption of achievement oriented behaviours, of skills and knowledge, appropriate to a Western technological society. The wider society, implicitly in segregation and explicitly in the political ideology, insists on the recognition of separateness and inequality. The schools can dispense rewards in terms of skills, knowledge and the qualifications necessary for advance. The society in turn can bar their use." (p. 126)

The purpose of this first chapter has been to examine the background from which research on children's racial attitudes progressed. Due to the essentially descriptive nature of the research, central core concepts have arisen. These concepts translate into almost all theory and research in this area. Concepts such as group (minority and majority), group identification, awareness and ethnocentrism provide the basis for understanding how children's racial attitudes develop. With this foundation it is possible to discuss the theory and empirical literature that has evolved from the early studies of children's racial attitudes.

CHAPTER 2: THEORIES OF RACIAL ATTITUDE DEVELOPMENT

Why are children prejudiced? Is there an inborn predisposition to be prejudiced against certain other groups? Or is it a process of perceiving the attitudes of others in the society and learning to be prejudiced? In order to explain the acquisition and development of racial prejudice in childhood, theories have been developed which address this issue from different perspectives. The following chapter deals with six theories of children's racial attitudes. The configuration and grouping of the theories follows that of Aboud (1988) with the exception of Williams and Morland's (1976) theory of colour meanings. The grouping is as follows: social reflection theory; Williams and Morland's (1976) colour meaning theory; inner state theory of prejudice; and the social cognitive theories of Katz (1976), Piaget and Weil (1951), and Aboud (1988).

2.1. SOCIAL REFLECTION THEORY

According to Aboud's (1988) explanation of social reflection theory, prejudice is related to the relative power and status of various ethnic groups in a stratified society. According to this theory, people are a product of their social surroundings. They adopt attitudes and stereotypes about groups that correspond to the relative status and power held by these groups. Groups that have different status and power will be viewed and valued differently (Morland and Suthers, 1980). However, "if the groups are perceived as somewhat equal and in competition the competing group will be most derogated" (Aboud, 1988, p. 19).

This is a phenomenon whereby the outgroup becomes perceived as an undifferentiated mass, in which individual members become "depersonalised, dehumanised and social stereotyping increases in scope as and when intergroup relations deteriorate" (Tajfel 1982, p. 13).

The simplest version of social reflection theory assumes that prejudice stems from a knowledge of the social structure. It follows therefore that it is necessary to acquire a knowledge of the social structure before prejudice develops. This presupposes that as children understand the social structure, they will develop attitudes that reflect differences in status between groups in the society.

Aboud (1988) criticises this conception of social reflection theory by arguing that, "awareness of the social structure must precede the formation of attitudes and stereotypes. The implication is that by 12 years of age, when children know the structure of their society, all children should show prejudice that reflects the status differences of groups. This is indeed not the case" (Aboud 1988, p. 18). Finally, there is no explanation for individual differences in the degree of prejudice, that is why some people are more prejudiced than others. It follows according to this theory that each group will be equally biased against either the competing group or the group that is lower in status. However, the next version of the social reflection theory presupposes that differences in the social influences which the child is exposed to will determine individual differences in the degree of prejudice.

Aboud (1988) suggests that there is another more acceptable version of social reflection theory. She explains that children reflect the prejudices and values of their parents with regard to own and other ethnic groups. Parental perceptions are taught to or learnt by children who are eager to please and identify with their parents. Allport (1954) suggests that it is rare that children are trained directly but rather that prejudice is "caught rather than taught". The process described by Allport (1954) is as follows. Children will imitate the label ascribed to a group as well as the accompanying emotion. When they are old enough to understand which group is referred to by the label, then the negative emotion crystallises into a negative attitude. With adult development this stabilises into prejudice that is embedded into the personality.

Milner (1984) describes the acquisition of

"prejudiced racial attitudes ... as a consequence of social influence via the socialisation of children within societies where a hostile climate of attitudes towards particular ethnic minorities prevails. ... hostile attitudes towards black minorities are widespread amongst adult members of the majority group. The task has then been to examine the ways in which the next generation come to comprehend this social reality and to construct their own. That this development process begins in the preschool years suggests that parents have a central role in transmitting attitudes" (p. 90).

The second version of social reflection theory has various strong points. It explains the selection of certain targets for prejudice, that is, if attitudes reflect the structures of society those groups that are the lowest in status and power in a society are expected to be derided. Alternatively, if groups are considered equal and in competition the competing group will be the most derided.

The theory explains why all groups other than the in-group are not equally disliked, that is parental choices will affect childrens' prejudice. Finally the theory explains why prejudice is so widespread and persists across generations. That means that all societies that are stratified or in competition will produce prejudice and this will be handed down by the parents in each generation.

The theory is however beset by various flaws. Aboud (1988) contends that empirical research does not support the developmental predictions implied above. Four year olds have been found to be highly prejudiced and prejudice has not been found to increase with age. After the age of seven, prejudice in white children has been found to decline (Aboud, 1980; Asher and Allen, 1969; George and Hoppe, 1979; Katz and Zalk, 1978), while pro-white bias in black children also decreases after the age of seven (Davey, 1983; Katz et al, 1973). It is assumed by the theory that children are a tabula rasa on which their parents inscribe all that they desire the child to know. This is also not supported by research.

The theory does not provide an explanation for why minority children often prefer the outgroup to their own-group, sometimes in clear disagreement with their parents. For example there is evidence that black children under the age of seven are clearly in favour of whites (Asher and Allen, 1969; Clark and Clark, 1947). Developmental changes in prejudice are not accounted for in this theory and the assumption is made that people of all ages have the same determinants of prejudice.

2.2 WILLIAMS AND MORLAND'S (1976) THEORY OF COLOUR MEANINGS.

Williams and Morland (1976) suggest that there is a both a cultural and biological aspect to the development of racial bias. The emphasis is largely on a learning process which occurs early in life. It is proposed by this theory that children have by the ages of two to four, "acquired a primarily visual orientation towards (the) environment, and (have) learned through experience that there are frightening things which may be encountered, and (have) developed an active imagination." (p. 264)

In this context the child may develop a fear of the dark, being unable to check visually whether he or she is safe. The child may call upon the parent to assist and a light will be switched on. This leads to a dark negative, light positive association. A consequence of this association is the development of a propensity to evaluate light things more positively than dark things. This association becomes generalised to the racial context when children learn to evaluate other races against the background of their own racial group membership and socio-economic and family background.

It is very tentatively suggested that the basis of this racial bias may stem from a biological tendency to prefer light over dark.

Two tests were developed to investigate this viewpoint. The colour meaning test (Williams & Roberson, 1967) works on the principle of a semantic differential scale. The child is shown a series of pictures depicting two objects or animals, alike in all respects except colour (black or white). The child has to ascribe an adjective to each object or animal, such as nice, naughty, ugly, sad, etc. Findings showed a clustering of negative words around the black stimuli. The other measure is the Preschool Racial attitude measure (P.R.A.M). Instead of using animal stimuli, the P.R.A.M. uses people in the stimulus pictures and it works on the same principle as the Colour Meaning Test.

A developmental path can be derived from this theory. The young child develops a preference for light over dark. This basic colour preference forms the bases of cultural colour symbolism, which is also taught to the child, and so reinforces the basic colour preference learnt in earlier childhood and infancy. The colour preferences which are thus established generalise to people with light or dark skin pigmentation. The cultural and societal influences may only be felt by the child by the time the child begins school. The preschool bias may only be as a result of the early light-dark bias and not directly reflect race or racial prejudice even though it may seem as if it is (Williams & Morland, 1976).

2.3 INNER STATE THEORY OF PREJUDICE

Inner state theory or the authoritarian theory of prejudice refers to prejudice as arising from an internal conflict rather than from some social etiology. This theory suggests that prejudice arises from an inner conflict based in early childhood that has not been satisfactorily resolved. The theory is based on the psychodynamic view of childhood. The theory proposes that prejudice in children is generated by harsh or uncompromising parents.

These parents provide an arbitrary, rigid and often severe authority. The child feels hostile and due to the inflexibility of the parents the child is never permitted to directly express any of this pent-up hostility or anger. The child learns that this aggression and hostility are bad and he/she feels anxious and guilty. Thus the theory postulates that as a defense mechanism the child identifies with the frustrating authority figures, begins to idealise them and eventually displace the hostility and aggression onto people who lack authority or power, that is, minority groups.

Frenkel-Brunswick (1948) comments that, "Only a frightened and frustrated child will tend to gain safety and security by oversimplified black - white schematisations and categorisations on the basis of crude, external characteristics." (p. 306)

The strength of this theory lies in its ability to account for individual differences in levels of prejudice. This relates to differences in child rearing creating different levels of prejudice. It also accounts for the stability of prejudice. Aboud writes, "According to this theory, prejudiced people may find a different minority group to derogate, may find a different target for their prejudice, but the level of prejudice remains because it is tied to a stable inner state" (1988, p. 21).

problems
The theory cannot however specify who or what the targets are for prejudice and it suggests that all minorities will be treated similarly by the prejudiced person.

targets

"The only specification of target groups is that they be weak, unfamiliar and different from parents, namely low status and powerless groups. Powerless groups are convenient targets of prejudice because unlike authority figures they cannot retaliate. This minimises the prejudiced person's anxiety. Moreover the less that is known about the group the easier it is to assign negative traits to it. In these two ways, minority ethnic members are convenient targets for both displaced anger and projected traits", (Aboud, 1988, p. 21).

Another weakness is the failure of the theory to provide a developmental pattern of prejudice. It does not provide a concept of the quality and manifestation of prejudice at different stages of life. There are however implications for the development of prejudice that can be drawn from this theory.

development pattern

The theory predicts that prejudice manifests itself early and is established around the age of five with the resolution of the Oedipus complex, after which the level of prejudice remains stable, although the targets for prejudice may change. Alternatively "regardless of parental assistance, most children are unable to control their hostility or to integrate good and bad qualities in themselves because of their emotional and cognitive limitations. Consequently, one might predict that all young children would be prejudiced and that prejudice would decline with development." (Aboud, 1988, p. 22)

2.4 SOCIAL COGNITIVE THEORIES

The social cognitive theories of Katz (1976), Piaget and Weil (1951), and Aboud (1988), claim that children will be prejudiced at an early age because of cognitive limitations that create a different understanding of the world from that of adults.

A. KATZ'S (1976) SOCIAL COGNITIVE THEORY

The social cognitive developmental theories of prejudice predict qualitative changes in prejudice in children of different ages according to changes in cognitive structure. Katz (1976) emphasises a cognitive-perceptual factors in her theory of the development of racial attitudes. She suggests that perceptual and linguistic parameters are very important factors in determining attitude acquisition. The view holds that there are two main factors in perceptual differentiation. The perceptual cues and characteristics of the individual and the labels and evaluative statements that the child hears from adults and peers.

The process works in two complementary ways; the application of labels to a group encourages discrimination between groups while the use of the same label for all members of a particular group will encourage the perception of the group as a homogenous mass undifferentiated by its individual members.

At an early age children may attend to various characteristics or cues differentiating people of different race groups. When they begin to verbalise their perceptions, adults might ascribe labels to the various groups. These labels are then internalised by the child who may group people according to the label designation. The individual characteristics of people may be less attended to and group stereotypes might arise (Katz, 1976).

In support of this argument, Katz, (1973) found that between group differences and within group similarities were less salient for low compared to high-prejudice children (Katz, Sohn & Zalk, 1975).

A developmental sequence of ethnic attitude acquisition has been proposed by Katz (1976). This developmental model follows in the footsteps of other models such as Goodman (1964), who suggested a three-stage developmental sequence starting with ethnic awareness at 3 - 4 years; ethnic orientation, at 4 -7 years and then true attitude formation from age seven onward.

Katz (1976), presents a series of eight overlapping but distinct stages which take place in approximately the first ten years of the child's life.

1)*Early observation of racial cues.* This stage usually occurs before the age of three, it comes about when the child is able to process cues and evaluate differences between stimuli.

2)*Formation of rudimentary concepts.* By the age of four children have usually been able to express verbally their perceptions of people being different from themselves, labels will be supplied from either adults or peers and evaluative aspects may also be communicated to children, either directly, or through fear of the strange, or learned colour connotations, or fear of the dark.

3)*Conceptual differentiation.* Using cues and labels children begin to develop a sense of what is negative or positive about the other groups that have been labelled. Their perceptions will be negated or reinforced by the people they communicate with.

4)*Recognition of the irrevocability of cues.*

Children begin to realise that as they grow older, their race like their sex will remain the same and that racial cues do not change with age.

5)*Consolidation of group concepts.* Once the cognitive and perceptual and evaluative components begin to be interrelated children can be said to have a sense of group membership. They understand the immutability of ethnic group membership and begin to label and identify their own and other groups, both positively and negatively. This process occurs at approximately the age of five and continues over time.

6)*Perceptual Elaboration.* At the stage where children have separated the in-group and out-group, the phenomenon of equivalence of cues begins to play a role in ethnic group perception. Differences between the own-group and out-group are magnified and differences between members of the out-group are minimised . Again there is evidence that this takes place at the preschool level and develops through the primary school years. (Katz, 1973; Katz, Sohn & Zalk, 1974).

7)*Cognitive Elaboration.* Katz, (1976) differentiates between the concepts of true "attitude" and "concept-attitude"; she reserves the former concept for adults or those people who have developed fully fledged attitudes. Cognitive elaboration refers to the process by which a concept attitude becomes a racial attitude. The exact process itself is not fully understood except for the obvious assumption that the former is the foundation for the latter. The experiences children gain at school and in the social arena, labels, interactions and evaluations of ethnicity all contribute to future attitudes. This process occurs during early and middle primary school years, approximately between six and ten years of age.

8) *Attitude Crystallisation*. At approximately eleven years of age children can be said to have developed fully fledged ethnic attitudes. These seem to be quite resistant to change and may in fact not change much during the entire lifetime (Katz, 1976). This theory provides a clear pattern for children's racial attitude development. However individual differences in prejudice or preference are not accounted for. Cultural differences in racial attitude development are not clearly established but it is possible to extrapolate that parents may play a role in the initial labelling process. Parents may label various out-groups and own-group differently so as to convey evaluations about differences in status. This causes children to identify with an out-group or to prefer their own-group.

B. PIAGET AND WEIL'S (1951) SOCIAL COGNITIVE THEORY

Another theory which has been advanced in this framework is that of Piaget and Weil (1951). They developed a cognitive developmental explanation of prejudice on the foundation of the Piagetian theory of child development. Piaget bases his account of the cognitive development of children on the changing faces of egocentrism. Very young children believe that everyone experiences the world as they do. This self-centredness precludes them from taking any other point of view.

Therefore it follows in the racial attitude arena that children are egocentric and unaware of ethnic groups or nationalities from age four to seven. "Piaget considered the preferences at this stage to be whimsical; that is, they are based on random personal considerations." (Aboud, 1988. p. 22).

The stage from ages seven to ten is referred to as the sociocentric period. Children move from a purely egocentric perspective to a sociocentric one where they see their own ethnic group as the only point of reference. Other groups are seen only as they contrast with the own-group and the differences are exaggerated, creating a positive own-group and negative out-group polarity.

According to Piaget and Weil (1951), from the age of ten to fifteen reciprocity develops, Aboud (1988) describes reciprocity thus;

"Reciprocity refers to a symmetry in a relationship. It implies that one can accept the validity of different perspectives; for example , one can grant to another person the ingroup preferences that one holds towards one's own group. If one remains focused on groups, this would lead to the notion of group reciprocity, that is each group holds its own prejudice and suspicion of the other. This reciprocity between groups might serve to justify reciprocal hate." (p. 23)

Aboud (1988) suggests that this theory is weak in two areas. The first weakness relates to the fact that early egocentrism is proposed to indicate random choices for prejudice. However, the literature and research suggests that this is not so. Ethnic preferences of egocentric children do show a pattern for which Piaget and Weil's (1951) theory does not supply a systematic explanation. Also decentration does not stop at an awareness of group differences but continues until children focus on individuals within these groups.

C. ABOUD'S (1988) SOCIAL COGNITIVE THEORY

In her theory of the development of prejudice, Aboud (1988) draws on Katz (1976) and Piaget and Weil's (1951) model of prejudice development but she expands these to encompass two overlapping sequences of development. The first involves a process that dominates the child's experience from affective states to perceptions to cognitions. The second centres around the focus of attention of the child from self to groups and finally to individuals.

Initially the child is dominated by emotions and preferences, that is by affective processes and therefore prejudice is determined by emotions and need satisfactions, not by ethnic identification. Children will be wary of strangers that look different and will prefer people who meet their needs and make them happy. In the second step of the first sequence perceptions of others develop in relation to self. Children will dislike people who are dissimilar to themselves. They will be influenced by observable cues, like hair colour, skin colour, and language.

The basis of ethnic identification is that children will identify with those whom they look most similar. In the third stage of this sequence children understand categories and individual qualities and an understanding of non-perceptual qualities of ethnicity occurs, for example that of ancestry. This should bring about a reduction in prejudice at about eight to ten years. There is an understanding of the stability of ethnicity and an understanding that ethnic differences are reconcilable.

The second sequence concentrates on the focus of attention. In the first stage in this sequence, the child is egocentric, the child's view is the only correct one and any other view point is regarded by the child as being necessarily wrong. The second stage of the sequence is much like Piaget and Weil's (1951) sociocentric stage. Prejudice follows from a preoccupation with groups especially the contrasts between the own and other groups. Initially children exaggerate the contrasts to clarify their understanding of the groups and this exaggerates attitudes into a pro-anti dichotomy. Later, though still preoccupied with people as members of groups they become aware of similarities as well as differences with their own and other groups. This leads to more cognitive flexibility and a decline in prejudice. The third stage involves greater attention to individuals accompanied by lower levels of prejudice. People will be judged according to individual characteristics and liked or disliked accordingly. Ethnic stereotypes will be used when there is no information or too much to process (Rothbart, Fulero, Jensen, Howard, Birrell, 1978).

2.5 CONCLUSIONS

In this chapter, six theories are discussed of how children acquire and develop racial prejudice. Implications for racial attitude development can be derived from each of these theories. The social reflection theory suggests that children learn labels about ethnic stereotypes and prejudice in early childhood. These labels eventually crystallise into actual prejudice as children begin to understand the structure of the society.

The theory of Williams and Morland (1976) suggests that white and black children are biased in the same way initially, this is a pro-white, anti-black bias which emerges between two and four years. This prejudice evolves with the influences of culture and will change only if it is modified by social norms or learning. This modification process will result in differences in prejudice between people later on in their development.

The inner state theory predicts that prejudice is established with the resolution of the Oedipus complex at approximately five years and remains stable thereafter though the targets for prejudice may change with circumstances.

Katz's social cognitive theory suggests that until age 12 children learn labels relating to racial groupings, they then grasp the concept of negative and positive labelling and begin to differentiate between their own and other groups. By twelve years the attitudes crystallise and they do not change.

Piaget and Weil (1951) contest that children between the age of four and seven are quite unaware of ethnicity. By seven to twelve years however they understand the concept of own and other groups and ascribe positive traits to their own group and negative ones to the out-group. After 12 they may either be reciprocal in their understanding and tolerance of other groups or in their hate.

Aboud (1988) suggests that at an early age children will be entirely egocentric preferring only those people who satisfy their needs. Then the child focuses on the own group and exaggerates differences between him or herself and others. Later however the child may be able to perceive people as individuals and prejudice decreases.

It is evident from the theories that children are believed to distinguish between different races by the time they reach four, even if it is thought to be purely accidental. From five to twelve the racial attitudes are either being established or are so already. By the time the child reaches twelve, fully fledged racial attitudes are firmly in place.

In the following chapter the research evidence for the development of racial attitudes is reviewed.

CHAPTER 3. RESEARCH ON RACIAL ATTITUDE DEVELOPMENT

This chapter includes a detailed description of the development of racial attitudes in white, black and other-than-black minorities. The age range covered will include children from four to twelve years of age. Studies from both South Africa and abroad will be reviewed.

It is possible to examine each racial group in the context of an age development and explain how children relate to their own and other groups. The following chapter therefore examines the racial attitude literature pertaining to white children and then black children and finally other-than-black minorities. The literature is organised to provide a description of the research findings for each racial group in terms of the development of racial attitudes with age.

This chapter is therefore organised according to the race group of the child, age of the child and response to both the own-group and the out-group

3.1 THE DEVELOPMENT OF WHITE CHILDREN'S RACIAL ATTITUDES

White children have been shown to be quite substantially aware of race (30 - 70 %) at three to four years of age. This notion has been supported both internationally (Aboud and Skerry, 1984; Brand, Ruiz and Padilla, 1974; Katz, 1976) and in South Africa (Gregor & McPherson, 1966; Meij, 1966). At this age white children are able to differentiate races by cues such as skin colour and facial features and they show a preference for white skin and straight hair. (Clark, Hocevar and Dembo, 1980; Kircher and Furby, 1971).

White ethnocentrism is quite well developed by four years of age (Aboud and Skerry, 1984; Vaughan, 1964). White children also prefer to play with white peers and tend to evaluate white stimuli, such as dolls, photographs and puppets positively (Asher and Allen, 1969; Crooks, 1970; Morland, 1966). With regard to attitudes to other groups, white children typically reveal negative out-group attitudes at this age (Asher and Allen, 1969; Greenwald and Oppenheim, 1968).

In a study of children's racial attitudes in northeastern America, Goodman (1952) studied 103 children and their families over the period of a year. Goodman (1952) commented that children were expressing strongly entrenched racial values by the age of four. She describes white preschoolers' perception of black people as , "strange, unlovely and unloved, if not actively rejected" (p. 79).

Proshansky (1966) in a review of international literature, maintains that racial awareness increases rapidly after three years of age in white children and is fairly well established by five to six years. In South African children, accurate awareness of racial differences has been found to increase in a linear fashion until there is 85-100% awareness by seven years of age (De Groot, 1978; Foster, 1986; Gregor and McPherson, 1966; Meij, 1966). Moodie (1980) found that awareness of race was established by age six.

Between the ages of five to seven, ethnocentrism increases (Aboud and Skerry, 1984; Moodie, 1980; Porter, 1971; Vaughan, 1964) as does own-group preference (Asher and Allen, 1969; Clark, Hocevar and Dembo, 1980, Hraba and Grant, 1970; Morland, 1966). White children maintain a negative attitude to blacks until seven years of age (Crooks, 1970; Cantor, 1972; George and Hoppe, 1979; Hraba and Grant, 1970).

In South African studies, Melamed (1968, 1970) found that white children rejected stimuli least resembling caucasoid features.

Thus it seems that by six years white children show strong ethnocentrism and have a negative attitude to blacks and black stimuli. They prefer whites and white stimuli, caucasoid type features and identify strongly with their own group. Some studies have found that after the age of seven, white own-group preference decreases and there is an increase in positive attitudes towards the out-group (Rice, Ruiz and Padilla, 1974; Zinser, Rich and Bailey, 1981) whereas other studies have noted no change in own-group preference (Aboud, 1977; Fox and Jordan, 1973; George and Hoppe, 1979).

Similarly white ethnocentrism also decreases or remains at the same level (Aboud and Skerry, 1984; Vaughan, 1964). However in a study with white South African children, Barling (1981) found that ethnocentrism increased from seven to twelve years of age (ethnocentrism was defined to include concepts such as preference for and identification with the in-group and negative views of the out-group). Using a similar definition, Moodie (1980) found that ethnocentrism was more marked in the Afrikaans speaking children than in English speaking white children and that ethnocentrism increased from six to thirteen years.

Thus, in summary, white childrens' ethnocentrism first increases and then decreases after the age of seven as does identification with the own-group and preference for whites although some studies do not find a decrease. By the ages eleven to thirteen there is evidence for more racial tolerance. There is evidence however to suggest that ethnocentrism stays high in white South African children.

3.2 THE DEVELOPMENT OF BLACK CHILDREN'S ATTITUDES TO RACE

Black children also achieve awareness of race by three to four years of age (Goodman, 1952; Porter, 1971; Vaughan, 1964). Instead of developing black ethnocentrism, however, studies show that at four to six years black children show strong out-group preference and identification (Asher and Allen, 1969; Clark and Clark, 1947; Vaughan, 1964). In his review of the South African literature, Foster (1986) indicates that approximately 70% of three to four year olds in two studies (Gregor and McPherson, 1966; Meij, 1966) were able to differentiate between white and black children. These two studies show a linear increase in awareness until at age seven there is almost 100% recognition.

South African studies reveal that black children aged three to seven show a statistically significant preference for white dolls (De Groot, 1978; Gregor and McPherson, 1966; Meij, 1966). International studies indicate that black children show a preference for whites and white stimuli especially white skin and straight hair (Clark, Hocevar and Dembo, 1980; Kircher and Furby, 1971).

An interesting finding in South Africa has been that black children tend to have more accurate recognition of white figures than black figures in Clark type doll studies at age three to four (De Groot, 1978; Gregor and McPherson, 1966; Meij, 1966).

Some research indicates that white preference increases between five and seven years in black children (Asher and Allen, 1969; Davey and Mullin, 1980; Fox and Jordan, 1973). Other studies found no change in black childrens' pro-white bias in this age group (Williams et al, 1975; Williams and Morland, 1976). South African studies have found that like their white counterparts, black childrens' awareness of racial groupings increases in a linear fashion until seven years (De Groot, 1978; Gregor and McPherson, 1966; Meij, 1966). Black children are able to correctly recognise the different racial categories to an equal extent by six years of age whereas previously they were better able to recognise the white category (De Groot, 1978; Gregor and McPherson, 1966; Meij, 1966).

From the age of six or seven onwards, some studies have found out-group identification and preference in black children to decrease until there is complete own-group identification at eleven to twelve years of age (Clark and Clark, 1947; Vaughan, 1964). Davey (1983) reported no change in out-group identification and preference with age, but no studies have reported increased misidentification with increased chronological age. Later studies have, however, shown a marked increase in own-group identification findings (Hraba and Grant, 1970; Fox and Jordan, 1973; Katz and Zalk, 1974; Vaughan, 1978).

Similar reductions in misidentification have been noted in British studies such as Davey (1983), Loudon (1981), and Milner (1983, 1984).

One explanation for this has been a growth in black pride largely as a result of the Civil Rights movement and other such minority group political movements. Thus psychological changes in racial attitude and identity can be seen in an interactional process with social and historical change (Foster, 1986). Parental attitudinal influence may also play a part in this process and black consciousness ideology both in South Africa and abroad seems to be related to improved self esteem in black and other minority group children.

3.3 OTHER-THAN-BLACK MINORITIES' RACIAL ATTITUDE DEVELOPMENT

Very little research has been done on the development of racial attitudes in other than black minorities. Much of this research indicated that there was an early pro-white bias and little change with age (Aboud, 1977; Davey and Mullin, 1980; George and Hoppe, 1979). In South Africa a study was done by De Groot (1978) involving coloured preschoolers from Cape Town and Stellenbosch. In his review, Foster (1986) shows that De Groot's subjects were similar to the black subjects of Gregor and McPherson (1966) and Meij (1966) in that awareness of race increases in a linear fashion from four to six years. De Groot's (1978) study also showed that there is a decrease in misidentification from three to six years.

In the same study, coloured children showed a statistically significant preference for white stimuli in the three to six year old sample. However in De Groot's (1978) study white preference was smaller than in Gregor and McPherson (1966) and Meij's (1966) studies with black children. Foster (1986) suggests that this "may perhaps reflect historical changes, as found in other international research. Alternatively, results may reflect ... the slightly different social, structural positioning of coloured people compared with Black people in South Africa." (p. 169)

3.4 SEX DIFFERENCES IN RACIAL ATTITUDE DEVELOPMENT

Sex differences in racial attitude development have not been significantly established. Asher and Allen (1969) found that black girls showed less preference for whites than black boys. Another study showed that black and white girls are more ethnocentric than boys (Goldstein et al; 1979). Most of the studies that investigated sex differences found no evidence of this phenomenon. (Davey, 1983, Fox and Jordan, 1973; Katz et al, 1975, Katz and Zalk, 1974; Milner, 1973; Williams et al, 1975).

In South Africa De Groot (1978) and Gregor and McPherson (1966) both found that girls have a greater identification with white stimuli than boys.

3.5 *A SURVEY OF METHODOLOGIES THAT HAVE BEEN USED IN
MEASURING RACIAL ATTITUDE DEVELOPMENT IN YOUNG CHILDREN.*

The forced choice methodology originally used by the Clarks (Clark and Clark, 1940) has persisted because it appears to be the most accessible to children and simple to administer. Most of the research on children and the development of racial attitudes has taken place in western societies using various groups and subgroups. The findings in many of the studies must be treated with circumspection as there have been various methodological problems, especially associated with the forced-choice procedures, such as doll studies and picture preference. One of the major problems with forced choice tests is that there is no index of the intensity with which children either prefer or identify with a particular group (Aboud and Skerry, 1984).

Another problem is that own-group and other group attitudes are often measured simultaneously. By asking the child to choose one group or the other in the same item, the attitude towards the one group is confounded by the response toward the other. The child is forced to show an avoidance of the group not chosen and an approach towards the chosen one (Aboud and Skerry, 1984).

It appears from a comparison between a continuous rating scale and forced choice tests that the problem with the latter is mainly that of the gauge of intensity of the test. Out-group non-choices are less negative than the forced choice would show, and the own-group choices are less positive (Verna, 1982).

It has been found that skin colour and hair type both affect children's preference for stimuli, such as line drawings and dolls (Kircher and Furby, 1971) while in another study, hair and skin colour were held constant and no preference for skin colour was found (Katz and Zalk, 1974). Thus it is not clear which cues the early doll studies may have been tapping. Lastly no reliability or validity data on these forced choice tests have been made available. Often their purpose is highly transparent and older children may inhibit their prejudice to appear socially desirable. This may account for findings of decline in prejudice in white children. It seems desirable therefore to use tests that are not transparent.

The Katz-Zalk Projective Prejudice Test (Katz & Zalk, 1976) is a more sophisticated version of the original Clark (1939) methodology. It uses slides depicting children of two race groups and demands a choice based on racial cues in order to derive a racial attitude measure. The test has an enormous advantage in that it assesses both attitudes to the out-group and the in-group separately and simultaneously. It is the methodology that is used in this study and is therefore described in more detail in chapter four.

Another methodology that is largely a forced choice procedure along the lines of the Clark methodology is the Preschool Racial Attitude Measure (P.R.A.M.). This methodology is beset by the same problems that characterise forced choice methodologies in testing children.

The Repertory Grid was developed by Kelly (1955) as part of his Personal Construct theory. The grid is a complex, introspective technique for exploring the individual's hierarchical system of constructs. The grid is a matrix in two dimensions with the 'elements', (objects being examined) arranged along the top from left to right and the 'constructs', (dimensions along which the objects are being examined) arranged from top to bottom on the matrix. The grid is a tool for quantifying an individual's attitudes, feelings and perceptions. In its application to the issue of children and race it is a move away from the forced choice methodology and an attempt to gain a more qualitative picture of children's racial attitudes. The grid has been used in South Africa by Dawes (1985).

In Dawes' study the elements were full length colour, photographs of children representative of the population groups in South Africa. The pictures were ranked by the subjects across 23 constructs in order to gain an impression of how the subjects assigned positive attributes, negative attributes, social awareness constructs (such as "from a big family"); social distance constructs (such as "the one I would like to play with"); and finally racial identification ('most like me').

The Repertory Grid is a useful means of obtaining data on children's racial attitudes. It is sensitive to intensity and offers more understanding of the cognitions involved with racial attitudes. However this methodology is extremely time consuming and complicated both in the eliciting of constructs and in its administration to the subject.

3.6 CONCLUSIONS

In summary, white children, become aware of race at three to four years. This awareness increases with age to seven years. Ethnocentrism is established at four years and it also increases until seven years after which it decreases or remains steady. In-group preference follows the same pattern as ethnocentrism and out-group prejudice is established at four and maintained until seven after which there is either a decrease in out-group prejudice or it remains at the same level. There is some inconsistency in the literature however, especially after seven years when ethnocentrism has been found to increase in two samples of South African white children.

Black children also achieve an awareness of race at three to four years. From four to six they show strong out-group identification and preference. This preference increases until seven years when it decreases until there is own-group identification and preference by the age of eleven or twelve.

Coloured children seem to achieve awareness also at approximately four years. They seem to misidentify at an early age. However, there is not much age related evidence in the literature with regard to this group.

Of the methodologies surveyed the Katz-Zalk Projective Prejudice (Katz & Zalk, 1976) test seemed to be the most useful in the context of this study. It was felt that it would be able to generalise to other literature abroad, especially the body of studies that are affiliated with the Clark and Clark (1939) methodology. Group administration makes it more feasible to use a large sample with this instrument. A major advantage is that it is able to measure attitudes to both the black and the white group simultaneously.

In the light of the inconsistencies in the findings, especially with regard to the development of white children's ethnocentrism, a study was needed to clarify these inconsistencies to broaden the knowledge of coloured children's attitudes to race and to test the efficacy of Katz-Zalk Projective Prejudice test (Katz & Zalk, 1976). Such a study is reported in the following chapters.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 RESEARCH OBJECTIVES AND HYPOTHESES

Inconsistencies in the research literature as noted in the previous chapter led to the planning of the following study. This study had the objectives of clarifying and comparing the patterns of attitudes towards the own and other groups in black, white and coloured children in South Africa as this has not been done before. It was decided to use the Katz-Zalk Projective Prejudice test since it enables both in-group and out-group attitudes to be tested simultaneously. The study addresses children in five age groups ranging between six and twelve years old.

The following hypotheses were formulated:

- *1) Children of all races in this sample will show age differences in racial attitudes.

This hypothesises a main effect for age of subject.

- 2) Children of different sexes irrespective of race will have different racial attitudes.

This hypothesises a main effect for sex of the subject.

- 3) There will be differences between racial groups, (that is white, black and coloured) in racial attitudes.

This hypothesises a main effect for racial group.

- * 4) The pattern of age differences, (that is racial attitude development) will differ in the different groups.

This hypothesises an interaction effect between age and group.

- 5) Children of differing racial groups will differ in their racial attitudes according to their sex.

This hypothesises an interaction effect between racial group and sex of subject.

- 6) Children of different sexes will manifest differing racial attitude development.

This hypothesises an interaction effect between age group and sex of subject.

- 7) The patterning of age differences (that is racial attitude development) will differ between sexes and over the different groups.

This hypothesises an interaction effect between age group, racial group and sex of subject.

4.2 SUBJECTS

There were originally 424 subjects were drawn from three ethnic groups in Cape Town viz; black, white and coloured. The children were aged between six and twelve. All were primary school children from two white English medium schools, two white Afrikaans medium schools, two black Xhosa medium schools and two coloured English medium schools.

4.3 SOCIO-ECONOMIC STATUS OF SCHOOLS

All of the schools were from areas regarded as broadly middle-class. However, it is difficult in this country to compare class across race as they are such interwoven concepts. The middle class white schools enjoy the best facilities available to school children in this country, while the coloured and black children have greatly inferior facilities and standards of education.

4.4 SELECTION OF SUBJECTS

In each school, class lists were obtained from school secretaries. From these lists the sample was selected from all children aged 6 - 6:11 months; 7 - 7:11 months: 9 -9:11 months: 10 - 10:11 months and 11 - 11 :11 months. In each age group the children were divided into boys and girls. Then random tables were used to select 5 boys and 5 girls from each age group.

Two extra children, (one girl and one boy) were selected in each group to obviate numbers being eroded by absenteeism or spoiled questionnaires. Thus there were sixty children in all drawn from each school. In total there were 240 children from the white schools, (120 from English medium schools and 120 from Afrikaans medium schools), 120 from the black schools, and 120 from the coloured schools. Of this sample 56 subjects failed to be included in the sample because of spoiled questionnaires or absenteeism leaving a sample of 424 subjects. The composition of the sample is shown in Table 1.

TABLE 1

FREQUENCY DATA FOR SCHOOLS FOR ORIGINAL SAMPLE OF 424 SUBJECTS.				
SCHOOL	FREQUENCY	PERCENT	CUMULATIVE FREQ.	CUMULAT IVE PERCENT
1. WHITE	53	12.5	53	12.5
2. WHITE	56	13.2	109	25.7
3. AFRICAN	60	14.2	169	39.9
4. AFRICAN	51	12.0	220	51.9
5. COLOURED	50	11.8	270	63.7
6. COLOURED	50	11.8	320	75.5
7. WHITE	54	12.7	374	88.2
8. WHITE	50	11.8	424	100.0

4.5 CATEGORISATION OF AGE GROUPS.

It was decided to use the same age categories that were used in the original study using the Katz-Zalk Projective Prejudice Test (Katz & Zalk, 1976). These categories are:-

Category 1. Subjects who are older than 6 but younger than seven.

Category 2. Subjects who are older than seven but younger than eight.

Category 3. Subjects who are older than nine but younger than ten.

Category 4. Subjects who are older than ten and younger than eleven.

Category 5. Subjects who are older than eleven but younger than twelve.

In this categorisation process eight subjects, four of which who were not quite six and four who were not quite nine, were eliminated. The final number of subjects was therefore 416. The average age was 8.97 and the age range was 6.0 years to 11 years and 10 months old. There were 206 girls and 210 boys. The number of children and age means for each category for the final sample of 416 appear in Table 2.

Statistically the study was a three-way factorial design with a 3*2*5 configuration.

TABLE 2

AGE MEANS FOR FINAL SAMPLE OF 416 SUBJECTS			
CATEGORY 1: 6 - 7 years	WHITE	BLACK	COLOURED
<i>N</i>	45	24	19
MEAN	6.44	6.58	6.41
CATEGORY 2: 7 - 8 years	WHITE	BLACK	COLOURED
<i>N</i>	40	16	20
MEAN	7.35	7.37	7.27
CATEGORY 3: 9 - 10 years	WHITE	BLACK	COLOURED
<i>N</i>	43	21	20
MEAN	9.29	9.34	9.27
CATEGORY 4: 10 - 11 years	WHITE	BLACK	COLOURED
<i>N</i>	44	24	20
MEAN	10.46	10.41	10.35
CATEGORY 5: 11 - 12 years	WHITE	BLACK	COLOURED
<i>N</i>	39	21	20
MEAN	11.32	11.37	11.41

4.6 INSTRUMENTATION

The test used in the present study was the Katz-Zalk Projective Prejudice test (Katz & Zalk, 1976). This test was developed in America by Phyllis A. Katz and Sue Rosenberg Zalk. The instrument was designed to test racial attitudes in children. The test consists of a series of slides of various ambiguous school situations in which a child is either the initiator or recipient of a positive or negative event. There are 55 items on the test and these can be further divided into 38 race related items and 17 buffer items. The buffer items include slides depicting children of the same race and opposite sex interacting, and children of the same sex and race interacting. These are included in order to disguise the purpose of the test.

The thirty-eight racial attitude questions are divided into 21 items depicting negative events, such as "One of these girls scribbled on the other girl's painting. Who did the scribbling?"; and 17 items depicting positive events, such as, "This picture won first prize in an art contest. Which child drew it?". Together the positive ('P') and negative ('N') scores add up to a total ('T') score. (The English language version of the test is shown in Table A in the Appendix)

4.7 THE MEANING OF P, N AND T.

'P', designates the Pride or Positive score. This score is derived from the items on the Katz-Zalk Projective Prejudice Test in which the slides depict positive types of interaction, for example selecting the child who is the better chess player. If the respondent chooses the better chess player as the child belonging to the 'own-group', then one point is scored. For black and white children this score reflects the amount of preference and identification with the 'own-group'. The 'own-group' is thus perceived as having positive attributes.

How to score coloured children was a problem. The test does not depict children who look like coloured South African children, while black and white children should easily recognise themselves in the slides. The issue therefore became one of valence, to what extent do the coloured children identify with the white or the black group. Coloured people in South Africa have been classified as black and labelled as such, it therefore seemed more meaningful to score their responses as blacks and to measure whether they preferred the black group over the white group. Thus for coloured children 'P' indicates a preference for and identification with the black group.

'N', is the Prejudice score or negative score. The slides depicting negative actions are typical of prejudicial responses, (the slides are often based on prevalent stereotypes e.g, messy, dirty, nasty, stupid). These slides show children of different races being the recipient of a negative event. For black and white children these scores reflect an avoidance of the 'out-group' and prejudice towards the 'out-group'. The 'out-group' is thus perceived as being negative or bad. For coloured children the 'N' scores reveal prejudice and negativity against the white group.

'T', is the sum of 'P' and 'N'. It can be analysed as the sum of its parts as well as being a reflection of the overall racial awareness and ethnocentrism of the child. Thus if the total score is high the child will both be highly biased towards believing in the positive attributes of the 'own-group' and the negative attributes of the 'out-group'.

In terms of the scoring of the test, 'P' and 'N' are not related. 'P' is scored out of a total of 17, and 'N' is scored out of a total of 21. The questions are either positive or negative items. They are never both.

The test was standardised on 547 American children in the first (age 6), second (age 7) fourth (age 9) and fifth (age 10) grade. The sample was drawn from a lower-middle class urban community in the Bronx, New York City. Split-half reliability using a Pearson product correlation for the total urban standardisation was .81.

In South Africa the test was translated into Xhosa and into Afrikaans by two translators whose home language is respectively Xhosa and Afrikaans. The test was then translated back into English by two separate translators to establish the validity of the translation. These translated questionnaires are shown in Tables B and C in the appendix.

4.8 PROCEDURE

There were four trained test administrators, one for the white English speaking group, one for the coloured English speaking group, one for the black Xhosa speaking group and one for the white Afrikaans speaking group. The administrators were all female and of the same ethnic and language group of the subjects they were testing.

The training involved a rehearsal of the testing procedure. Prior to the date of test administration, each administrator was given a copy of the test instruction sheet, the questionnaire, and practised the procedure of the test administration using the slide projector.

Lists of selected children were given to each school secretary before the day of administration. On the day of administration the children were called for two sessions of testing. At every school the first session consisted of the six and seven year old children, who totalled approximately 30 children. The second session included the nine, ten and eleven year old children, totalling approximately 30 children. The children were seated and provided with a pencil and a copy of the questionnaire. A projector screen was set up with a slide projector at the front of the room.

The administrator of the test was provided with a standardised test instruction sheet which was translated where relevant. The test administrator followed a procedure where she introduced herself and explained the procedure of the test to the children. Then she showed a slide for each item and read the relevant question on the questionnaire. The children were required to put a cross in the relevant block underneath that question. While the children were busy completing the questionnaire the administrator walked around the room to help any children who were not coping. An example of the test administrator's instruction sheet appears in Table D in the appendix.

The duration for the administration of the test varied according to the age group and race group of the children. The younger children took from 60 minutes to 120 minutes. The older group took from 45 minutes to 90 minutes. The black children took much longer than the white or coloured children. A possible explanation for this is that black children have not had as much exposure to multiple choice type questions and this mode of questioning had to be explained carefully. The data was collected between April and June 1989.

Scoring for the attitude questionnaire is explained in detail on a scoring explanation sheet that accompanies the test package. Simply, for each of the 38 race related questions the child receives one point for attributing a negative trait to a child of another race group and one point for attributing a positive trait to a child of the same race group. The instructions for scoring the test appear in Table E in the appendix. The scoring was done on a large grid. There were separate grids for the Prejudice subscore and the Pride subscore. A total score for each child was then calculated by adding the Pride and Prejudice scores together. An example of this score sheet appears in Table F in the appendix.

CHAPTER 5: RESULTS

There were seven hypotheses. The first referred to an overall age effect on racial attitudes. The second referred to the effect of the sex of the subject on racial attitude. The third indicated that racial attitudes would differ in subjects of different race groups. The fourth hypothesised an interaction between the age of the subject and the racial group, that is that subjects of different race groups would show different patterns of racial attitude development. Hypotheses five and six referred respectively to an interaction effect between racial group and sex of the subject and the age group and sex of subject. The seventh hypothesis concerned the triple interaction of race group, sex and age group.

These hypotheses were initially investigated using a multivariate analysis of variance (MANOVA). This analysis gauged significance levels for each hypothesis on the two dependant variables 'P' and 'N' together, prior to analysing 'P', 'N', and 'T' separately. The 'T' score was not included in the MANOVA because it was a linear combination of 'P' and 'N'. The aim of this analysis was to reveal which main and interaction effects were significant for the whole sample.

Univariate three way analyses of variance were then used to discover whether there were significant main and interaction effects for each of the dependant variables , 'N', 'P', and 'T', separately. These were followed by one way analyses of variance to clarify the significant interaction effects, which in turn were followed by Newman-Keuls multiple comparison tests to assess the significance of differences between specific means.

5.1 DESCRIPTIVE DATA

The means and standard deviations for the total pride and total prejudice subtests as well as the grand total for the whole sample ($N=424$) were as follows. The mean for the total Pride score ('P') was 9.88 with a standard deviation (SD) of 3.23; for the total Prejudice score ('N'), $m = 10.77$ and $SD = 3.35$; and the mean for the total 'T' score was 20.58 with $SD = 5.77$. It must be remembered that there are 17 positive and 21 negative items on the Katz-Zalk Projective Prejudice Test (Katz & Zalk, 1976). This would naturally have influenced the difference between the means for the Pride and the Prejudice subtests. The mean, standard deviations, and standard error of the mean for each racial group on 'P', 'N', and 'T' in five age categories are presented in Table 3.

TABLE 3

THE MEAN, STANDARD DEVIATION, AND STANDARD ERROR OF THE MEAN FOR EACH RACIAL GROUP ON VARIABLES; P, N, AND T.				
AGE CATEGORY				
1 = 6 ≤ AGE ≤ 7				
GROUP				
		WHITE	BLACK	COLOURED
N	N	45.00	24.00	19.00
	MEAN	12.16	9.25	9.58
	STD	3.48	2.23	2.95
	STDERR	0.52	0.46	0.68
P	N	45.00	24.00	19.00
	MEAN	11.47	7.21	5.11
	STD	3.17	2.38	3.97
	STDERR	0.47	0.49	0.91
T	N	45.00	24.00	19.00
	MEAN	23.64	16.42	14.68
	STD	5.92	4.69	5.30
	STDERR	0.88	0.96	1.22

TABLE 3 CONT.

AGE CATEGORY				
2 = 7 ≤ AGE ≤ 8				
GROUP				
		WHITE	BLACK	COLOURED
N	N	40.00	16.00	20.00
	MEAN	11.73	8.44	8.40
	STD	3.43	2.71	2.70
	STDERR	0.54	0.68	0.60
P	N	40.00	16.00	20.00
	MEAN	11.00	6.31	5.20
	STD	3.30	2.33	2.63
	STDERR	0.52	0.58	0.59
T	N	40.00	16.00	20.00
	MEAN	22.73	14.75	13.60
	STD	5.78	3.61	4.74
	STDERR	0.91	0.90	1.06

TABLE 3 CONT.

AGE CATEGORY				
9 ≤ AGE ≤ 10				
GROUP				
		WHITE	BLACK	COLOURED
N	N	43.00	21.00	20.00
	MEAN	10.74	11.29	10.75
	STD	3.03	3.07	3.18
	STDERR	0.46	0.67	0.71
P	N	43.00	21.00	20.00
	MEAN	10.70	7.90	6.90
	STD	2.42	3.45	3.29
	STDERR	0.37	0.75	0.74
T	N	43.00	21.00	20.00
	MEAN	21.40	19.19	17.70
	STD	4.81	5.67	4.33
	STDERR	0.73	1.24	0.97

TABLE 3 CONT.

AGE CATEGORY				
$10 \geq \text{AGE} \leq 11$				
GROUP				
		WHITE	BLACK	COLOURED
N	<i>N</i>	44.00	24.00	20.00
	MEAN	10.73	11.42	9.95
	STD	3.39	3.93	3.43
	STDERR	0.51	0.80	0.77
P	<i>N</i>	44.00	24.00	20.00
	MEAN	9.91	8.29	6.65
	STD	2.81	2.90	2.94
	STDERR	0.42	0.59	0.66
T	<i>N</i>	44.00	24.00	20.00
	MEAN	20.61	19.71	16.60
	STD	5.46	6.23	5.45
	STDERR	0.82	1.27	1.22

TABLE 3 CONT.

AGE CATEGORY				
11 ≤ AGE ≤ 12				
GROUP				
		WHITE	BLACK	COLOURED
N	N	39.00	21.00	20.00
	MEAN	9.46	9.71	11.05
	STD	3.40	3.33	3.35
	STDERR	0.54	0.73	0.75
P	N	39.00	21.00	20.00
	MEAN	9.36	7.90	6.15
	STD	2.50	2.77	2.54
	STDERR	0.40	0.61	0.57
T	N	39.00	21.00	20.00
	MEAN	18.79	17.62	17.20
	STD	5.31	4.96	4.87
	STDERR	0.85	1.08	1.09

A three way multivariate analysis of variance (MANOVA) was done on 'N' and 'P', to test for (a) the significance of racial group, (b) the significance of the sex of each subject, and (c) the significance of the age category of the subject. The following interaction effects were also tested for :- (a) age category * racial group, (b) racial group * sex of subject, (c) age category * sex of subject, (d) age category * group * sex. The results are presented in Table 4.

TABLE 4

USE OF WILK'S LAMBDA TO TEST THE MULTIVARIATE NULL HYPOTHESIS		
	F	P
AGE CATEGORY	1.29	0.2452
SEX	0.88	0.4158
GROUP	43.12	0.0001**
AGECAT*GROUP	2.66	0.0004**
GROUP*SEX	1.07	0.3681
AGECAT*SEX	0.79	0.6102
AGECAT*GROUP*SEX	1.07	0.3828
** $P < .001$		

In this analysis two significant findings were revealed; a main effect for racial group and an interaction effect for age category * racial group. The former indicates overall differences between racial groups on pride and prejudice scores. The significant interaction indicated that these group differences, however varied, at different age levels. This interaction also suggested different age trends for the different racial groups. The third hypothesis was therefore supported, in that the racial group of the subject affects the development of racial attitudes. Furthermore there was evidence of an age related developmental pattern in the racial attitudes of the subjects as can be seen in the significance ($p = .001$) of the multivariate findings in support of the hypothesis of an interaction effect between the age of the subject and the racial group of the subject.

Unless it was in the interaction of the racial group of the subject, the age of the subject per se was not found to contribute significantly to the subject's racial attitudes. The second hypothesis was also rejected as there was no significant main effect for the sex of the subject. The interaction effect of age of subject and sex of subject was also not significant. Lastly the triple interaction effect of age, group and sex was not significant.

Once the main effects and interaction effects were established by the MANOVA, univariate 3-way analyses of variance (ANOVA) were performed on each dependant variable i.e 'N', 'P' and 'T' in order to establish that the same main effects and interaction effects held true for the individual dependant variables.

5.2 ANALYSIS OF 'P'

In the univariate three-way analysis of variance (ANOVA) for 'P', the same hypotheses were being tested as in the multivariate analysis, but here they were being used to establish the effects for own-group preference and identification with the own-group specifically. The results of the three-way ANOVA for 'P' are shown in Table 5.

TABLE 5

ANALYSIS OF VARIANCE FOR P				
	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
AGE CAT.	43.41	4	10.85	1.28
SEX	1.05	1	1.05	0.12
GROUP	1527.57	2	763.79	90.08***
AGECAT*GROUP	183.52	8	22.94	2.71*
GROUP*SEX	35.12	2	17.56	2.07
AGECAT*SEX	9.34	4	2.34	0.28
AGECAT*GROUP*SEX	73.39	8	9.17	1.08
* $P < .01$ *** $P < .0001$		ERROR = 386 CORRECTED TOTAL = 415		

As was the case for the MANOVA, the results of this analysis produced evidence of a main effect for the racial group of the subject ($p < .0001$). This showed that there were overall significant differences in the levels of racial pride among the different racial groups. Once again there was also a significant interaction effect for age category and group ($p < .01$). This indicated that the effect of age on 'P' varied for the racial groups. It also meant that the main effect obtained for racial group varied significantly across age levels. Consequently the main effect was disregarded and only the interaction effect interpreted. This interaction is shown in Figure 1 which depicts levels of 'P' at different ages for the three racial groups.

Figure 1 shows that at six years of age white 'P' scores are higher than the scores of the black subjects at the same age, who in turn have higher 'P' scores than the coloured subjects. In the case of the white subjects older age groups show a progressive tendency to lower 'P' scores, while the opposite seems to be the case for the coloured and black scores, though the trends seem weaker for the latter groups.

*In order to elucidate these patterns of development led to the use of a one way ANOVA's for age categories on 'P' for each of the three racial groups was used. These were followed by Student Newman-Keuls tests which analysed the hierarchy of means for each age group within each racial group on each dependant variable.

The ANOVA for age category for the white group on 'P', indicates that there was a significant effect ($p < .01$) for age categories on own-group preference. The ANOVA summary table is shown in Table 6.

KEY TO RACE GROUP CATEGORIES

1 : WHITE

2 : BLACK

3 : COLOURED

KEY TO AGE CATEGORIES:-

AGE CATEGORY 1 : $6 \leq \text{AGE} < 7$

AGE CATEGORY 2 : $7 \leq \text{AGE} < 8$

AGE CATEGORY 3 : $9 \leq \text{AGE} < 10$

AGE CATEGORY 4 : $10 \leq \text{AGE} < 11$

AGE CATEGORY 5 : $11 \leq \text{AGE} < 12$

TABLE 6

ANALYSIS OF VARIANCE OF AGE CATEGORIES FOR THE WHITE GROUP ON VARIABLE P.				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	4	119.86	29.96	3.65*
WITHIN	206	1688.88	8.20	
* $P < .01$				

On the Newman-Keuls follow up a developmental pattern was revealed. There was no significant difference between the 6 and 7 year old group but these groups were significantly ($p = .05$) different to the 11 year old group. The 9 and 10 year olds were neither significantly different from the 6 and 7 year old groups nor the 11 year old group.

Thus there was a gradual decrease in pride and own-group preference with age in white subjects and the decrease is statistically significant from 7 years of age to 11 years of age. The Newman-Keuls follow up for white children on 'P' is shown in Table 7.

TABLE 7

STUDENT - NEWMAN - KEULS TEST FOR WHITE CHILDREN ON P					
Means with the same letter are not significantly different					
AGECAT.	1	2	3	4	5
N	45	40	43	44	39
MEAN	11.47	11.00	10.70	9.90	9.36
GROUPING	A-----A				
	B-----B				



The ANOVA of age on 'P' for the black group was nonsignificant, ($F= 1.45$, $p > .05$). Although inspection of Figure 1. indicates a slight upward trend, there was therefore not a statistically significant increase over the age groups from six to twelve. This level of own-group preference was however lower than that of the white group. The results show that coloured subjects have a very low 'P' score ($F= 1.37$, $p > .05$) and that once again there is no statistically significant increase in 'P' over the five age groups.

One way ANOVAS were also done on 'P' in each age category for all racial groups. In age Category 1 which is shown in Table 8: (subjects six years or older but younger than seven) on 'P', the analysis of variance was statistically significant ($p < .0001$). On the Newman-Keuls follow up test (Table 9) the findings were that the white subjects in this age category showed the highest mean pride with the black subjects significantly less than the white subjects and the coloured subjects significantly lower than both the black and white groups on 'P'.

TABLE 8

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE P FOR AGE CATEGORY 1. (6 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	638.64	319.32	31.67 ***
WITHIN	85	856.94	10.08	
*** $P < .0001$				

TABLE 9

STUDENT-NEWMAN KEULS TEST FOR BLACK, WHITE AND COLOURED CHILDREN ON VARIABLE P FOR AGE CATEGORY 1.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	45	24	19
MEAN	11.47	7.21	5.11,
GROUPING	A	B	C

In age category 2 (Table 10), (subjects aged seven or older but younger than eight) on 'P' the ANOVA showed a significant difference across race groups ($p < .0001$).

TABLE 10

ANALYSIS OF VARIANCE FOR RACE GROUP ON VARIABLE P FOR AGE CAT. 2. (7 YRS)				
2	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	544.35	272.17	31.21 ***
WITHIN	73	636.64	8.72	
*** $P < .0001$				

The follow up test (Table 11) showed that the white subjects were significantly higher on racial pride than the black and coloured subjects, who did not differ significantly from each other.

TABLE 13

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE P FOR AGE CAT. 3.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	43	21	20
MEAN	10.70	7.90	6.90
GROUPING	A	B-----B	

In age category 4 (subjects ten years or older but younger than eleven), on 'P', there was also a statistically significant effect for race group ($p < .001$) (Table 14). The white group's mean was significantly higher than that of the black and coloured groups. The black group was also significantly higher than the coloured group on 'P' (Table 15).

TABLE 14

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE P FOR AGE CAT. 4. (10 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	152.31	76.15	9.29**
WITHIN	85	697.14	8.20	
** $P < .001$				

TABLE 15

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE P IN AGE CATEGORY 4			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	44	24	20
MEAN	9.91	8.29	6.65
GROUPING	A	B	C

In the age category 5 (subjects eleven or older but younger than twelve) on 'P' (Table 16), the ANOVA was again statistically significant $p < .0001$. The Newman-Keuls (Table 17) revealed that the mean 'P' score for the whites was significantly higher than that of the coloureds. The 'P' mean for the black children was intermediate between that of the white and coloured group, but neither of these differences was statistically significant.

TABLE 16

ANALYSIS OF VARIANCE OF RACE GROUP ON VARIABLE P FOR AGE CAT. 5. (11 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	138.22	69.11	10.37 ***
WITHIN	77	513.33	6.66	
*** $P < .0001$				

TABLE 17

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE P IN AGE CATEGORY 5			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	44	24	25
MEAN	20.61	19.71	16.60
GROUPING	A-----A		
		B-----B	

The preference or pride that subjects have for their own-group, in the case of white and black subjects and preference for the black group, in the case of coloured subjects can be summarised in terms of the overall developmental differences between the groups and the differences at each age category.

Overall white subjects' racial pride decreased significantly between seven and eleven years of age. Black and coloured subjects did not show any significant change in levels of racial pride across age. The latter two groups were significantly different from each other and from the white group. The white group has the highest own-group preference, the black group has significantly lower on-group pride and the coloured group has the lowest preference in terms of the black group. (Refer to Figure 1.)

At the six to seven age group the white subjects had the greatest racial pride and the coloured group had the lowest racial pride. In the seven to eight age group the significant differences lay between the white group and the combined black and coloured groups (black and coloured subjects show no significant differences at this age). Again the white group was significantly higher than the other two groups. At nine to ten years of age the pattern is the same as at ages seven to eight.

There is a significant divergence again at ten to eleven years when, white subjects are significantly higher in own-group preference than black subjects who are in turn significantly higher in own-group preference than the coloured subjects. At ages eleven to twelve, white and black subjects converge slightly and there is no significant difference between these two groups, however the coloured group's own-group preference (as blacks) is significantly lower than the white group's own-group preference.

5.3 ANALYSIS OF 'N'

In order to explore the statistical significance of findings for the prejudice or out-group avoidance measure, the same statistical methods were used for the 'N' score as for 'P'. The findings for 'N' are similar to those for 'P' in also showing a significant main effect for group ($p < .01$) and a significant interaction effect for age category and group ($p < .0001$) (Table 18). This indicates that subjects of different race groups differed in their overall attitudes towards the out-group and that there were also age differences which varied between race groups in negative attitudes toward the out-group. Again, only the interaction effect was interpreted. The interaction is depicted in Figure 2.

TABLE 18

ANALYSIS OF VARIANCE FOR N				
	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
AGE. CAT	60.68	4	15.17	1.42
SEX	2.14	1	2.14	0.20
GROUP	94.68	2	47.34	4.43*
AGECAT*GROUP	343.38	8	42.92	4.02**
GROUP*SEX	13.01	2	6.51	0.61
AGECAT.*SEX	26.41	4	6.60	0.62
AGECAT.* GROUP* SEX	61.78	8	7.72	0.72
* $P < .01$ ** $P < .001$		ERROR = 386 CORRECTED TOTAL = 415		

In the analysis of the interaction of age category and group on 'N', white subjects followed a similar pattern as had been the case for 'P'. The ANOVA of age on 'N' for whites (see Table 19) revealed that there was a significant effect for age, ($p < .01$). The Newman-Keuls follow-up (see Table 20) showed a decline in racial prejudice and negative out-group attitudes with age. Six-year olds had the highest mean prejudice score and 11 year olds the lowest. Six year olds were significantly higher on prejudice than eleven year olds, but not significantly different from seven, nine and ten year olds. Although eleven year olds were significantly lower in prejudice than six and seven year olds, they did not differ significantly from nine and ten year olds.

TABLE 19

ANALYSIS OF VARIANCE OF AGE CATEGORIES FOR THE WHITE GROUP ON VARIABLE N				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	4	179.49	44.87	4.00*
WITHIN	206	2310.49	11.21	
* $P < .01$				

TABLE 20

STUDENT - NEWMAN - KEULS TEST FOR WHITE CHILDREN ON N					
Means with the same letter are not significantly different					
AGECAT.	1	2	3	4	5
N	45	40	43	44	39
MEAN	12.16	11.73	10.74	10.73	9.46
GROUPING	A-----A				
			B-----B		

In the one way ANOVA for black subjects there was a significant effect of age on 'N' (see Table 21). There was thus some developmental pattern emerging in terms of black subjects' out-group prejudice. The Newman-Keuls follow-up (Table 22) showed a slight but nonsignificant decrease in prejudice from 6 to 7 years, this was followed by a significant ($p = .05$) increase in out-group prejudice to ages 9 and 10 and a nonsignificant decrease at age 11. This was a quite different trend from the white subjects. Black subjects seemed to be less prejudiced overall than white subjects though this was largely evident at ages 6 and 7 and unlike white subjects the prejudice increases with age.

For the coloured subjects, the one way ANOVA indicated that the effect of age on 'N' was nonsignificant ($F=2.23, p > .05$).

TABLE 23

ANALYSIS OF VARIANCE OF RACE GROUP ON VARIABLE N FOR AGE CAT. 1. (6 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	168.67	84.34	8.90**
WITHIN	85	805.04	9.47	
** $P < .001$				

TABLE 24

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN IN AGE CAT. 1. ON VARIABLE N.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	3	2
N	45	19	24
MEAN	12.15	9.58	9.25
GROUPING	A	B-----B	

In age category 2 (subjects seven years or older but younger than eight), on 'N', the ANOVA (Table 25) showed a significant difference between racial groups ($F=10.71$, $p < .0001$). White subjects again showed significantly higher levels of prejudice than black and coloured subjects, who did not differ significantly from each other (See Table 26).

In summarising this section, the reader is directed to Figure 2 which graphically depicts the findings for 'N'. Black and coloured children have very similar patterns of prejudice, as is evidenced by these findings. Both of these groups show significantly less prejudice towards the out-group than their white peers at the age of six. The same pattern occurs again at seven years when the white group is still significantly more prejudiced than the black and coloured groups. At ages 9 to 10 there is a convergence, and the three groups show a very similar level of prejudice. This remains so for the ten to eleven year olds and eleven to twelve year olds. Although the groups do not change in their levels of prejudice significantly at eleven to twelve years, there does seem to be a slight divergence, with white and black children slightly less prejudiced and coloured children slightly more so, but these differences were not significant.

White children show a significant decrease in prejudice from the age of six to twelve. Black children show a significant increase in prejudice from six to ten and eleven years. Coloured children do not show any significant increases or decreases in prejudice but are mostly less prejudiced against the white group than the black children.

5.4 ANALYSIS OF 'T'

The 'T' score reflects the total awareness of race or ethnocentrism of the subject. 'T' scores therefore revealed the bias towards the own-group and away from the out-group. The higher the 'T' score the more the subject may be said to be aware of race. In the ANOVA for 'T' (shown in Table 27), the significant effects were again revealed as a main effect for the racial group of the subject and an interaction effect for the age category and group of the subject. Again only the interaction effect will be interpreted and this is represented in Figure 3.

TABLE 27

ANALYSIS OF VARIANCE FOR T				
	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>
AGE CAT.	202.73	4	50.68	1.79
SEX	0.08	1	0.08	0.00
GROUP	2351.93	2	1175.97	41.55 ***
AGECAT*GROUP	969.18	8	121.15	4.28***
GROUP*SEX	85.29	2	42.65	1.51
AGECAT*SEX	51.46	4	12.87	0.45
AGECAT*GROUP*SEX	147.35	8	18.42	0.65
***P < .0001				

GROUP BY AGE INTERACTION FOR T

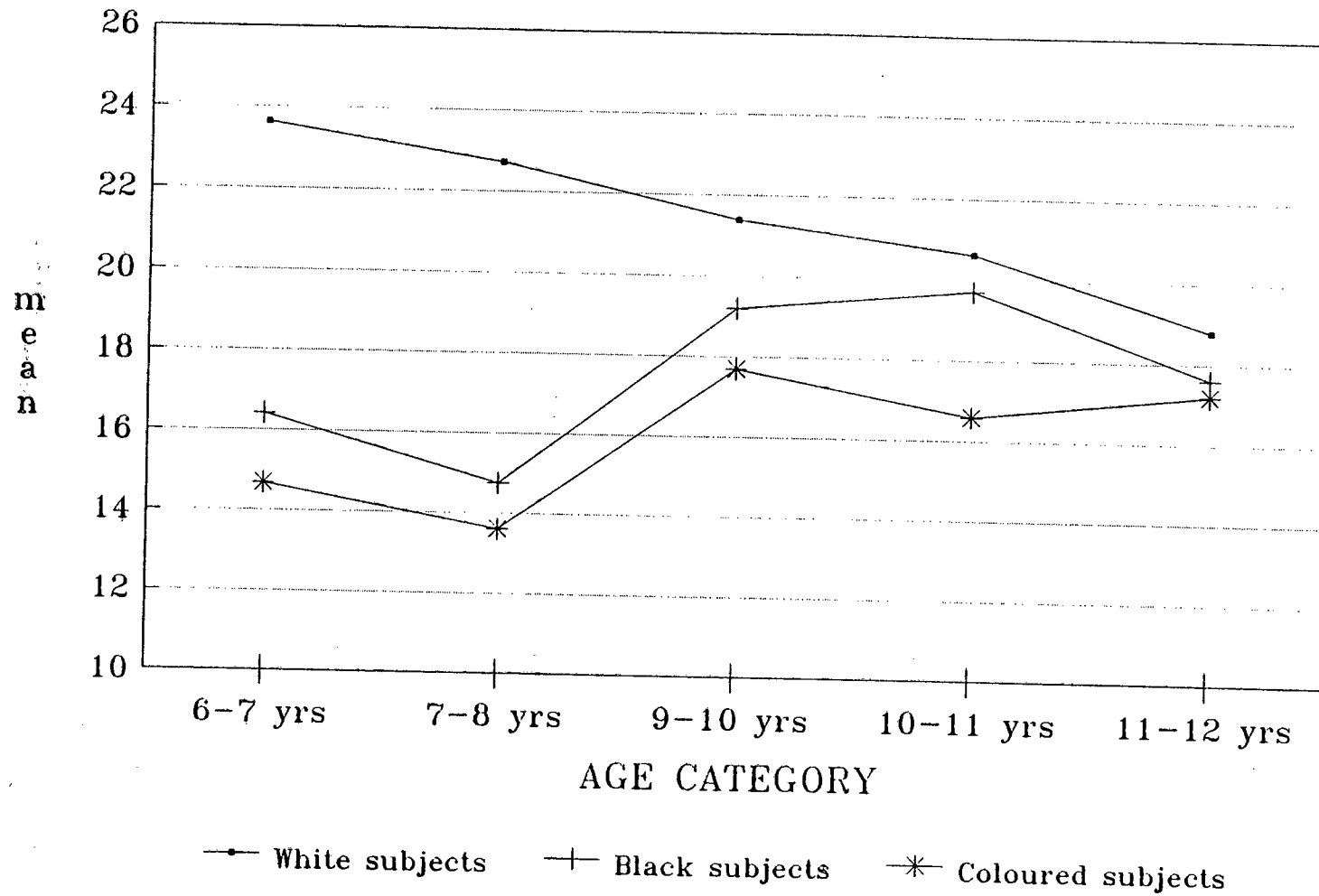


Figure 3.

The results of the one way ANOVA of age on 'T' for the white group were highly significant ($p < .001$) (see Table 28) indicating that there were large differences in racial awareness in white subjects. The total score, 'T' reflected the same trends as the 'P' and 'N' scores on the Newman-Keuls follow-up test (see Table 29). Ages six and seven respectively showed the highest means and were significantly different ($p = .05$) from the mean for the 11 year olds. There was a gradual decline in racial attitude scores with age. This meant that white subjects became less ethnocentric at higher age categories and that the high awareness of race in the younger age group declined gradually until 12 years of age.

TABLE 28

ANALYSIS OF VARIANCE OF AGE CATEGORIES FOR THE WHITE GROUP ON VARIABLE T.				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	4	587.34	146.83	4.90*
WITHIN2	206	6173.36	29.97	
** $P < .001$				

TABLE 29

STUDENT - NEWMAN - KEULS TEST FOR WHITE CHILDREN ON T					
Means with the same letter are not significantly different					
AGECAT.	1	2	3	4	5
N	45	40	43	44	39
MEAN	23.64	22.72	21.40	20.60	18.80
GROUPING	A-----A				
	B-----B				

The one way ANOVA (Table 30) for age on 'T' for the black group revealed that there were significant overall age differences in the overall racial awareness of these subjects. The Newman-Keuls (Table 31) reflected a similar trend to the 'N' score where 6 year olds had a low score which dropped slightly (and not significantly) at 7 and increased significantly at 9 and 10 and dropped slightly (and not significantly) at 11 years. This showed that black subjects became increasingly ethnocentric and aware of racial issues at the higher age groups.

TABLE 30

ANALYSIS OF VARIANCE OF AGE CATEGORIES ON VARIABLE T FOR THE BLACK CHILDREN				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	4	322.36	80.59	2.98*
WITHIN	101	2729.98	27.03	
* $P < .05$				

TABLE 31

STUDENT - NEWMAN - KEULS TEST FOR BLACK CHILDREN ON T					
Means with the same letter are not significantly different					
AGECAT.	4	3	5	1	2
N	24	21	21	24	16
MEAN	19.71	19.19	17.62	16.42	14.75
GROUPING	A-----A				
	B-----B				

For the coloured group, the one way ANOVA of age on 'T' was not significant.

Thus although Fig. 3 suggests a slight tendency for 'T' scores to increase in the older age groups, this tendency was not statistically significant ($F = 2.27, p > .05$).

In the one way ANOVA of race group on 'T', the findings were as follows. In age category 1, (six year olds) on T, a similar trend emerged as for 'N'. The ANOVA showed that there were significant differences between the racial groups at this age level ($p < .0001$) (see Table 32). The follow up test (Table 33) revealed that the white subjects had the greatest awareness of race with the black and coloured subjects significantly lower but not significantly different from each other.

TABLE 32

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE T FOR AGE CAT. 1. (6 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	1436.74	718.37	23.89 ***
WITHIN	85	2556.25	30.07	
*** $P < .0001$				

TABLE 33

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN FOR AGE CAT. 1. ON VARIABLE T.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	45	24	19
MEAN	23.64	16.42	14.68
GROUPING	A	B-----B	

In age category 2, exactly the same findings as for 'P' and 'N' were found for 'T' in the seven year old group, that is white subjects had the highest levels of racial awareness followed by the black and coloured subjects, who did not differ significantly from one another, although they were both significantly lower than the mean for the white group (see Tables 34 and 35).

TABLE 34

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE T IN AGE CAT. 2. (7 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	1417.63	708.82	26.87 ***
WITHIN	73	1925.78	26.38	
*** <i>P</i> < .0001				

TABLE 35

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE T FOR AGE CAT. 2.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	40	16	20
MEAN	22.72	14.75	13.60
GROUPING	A	B-----B	

In age category 3, the one way ANOVA of race group on 'T' (Table 36) showed a significant effect ($p < .01$). The Newman-Keuls follow up (Table 37) showed that white subjects were not significantly higher than black subjects, and black subjects were not significantly higher in racial awareness than coloured subjects, but there was a significant difference between white and coloured subjects.

TABLE 36

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE T FOR AGE CAT. 3.(10YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	203.18	101.59	4.17*
WITHIN	81	1971.72	24.34	
* $P < .01$				

TABLE 37

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE T IN AGE CAT. 3.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	43	21	20
MEAN	21.40	19.19	17.70
GROUPING	A-----A		
		B-----B	

2Exactly the same effects for race group on 'T' were evident for age category four (Tables 38 and 39). Once again the overall effect was significant, and once again white and black subjects were not significantly different from each other and black and coloured subjects were not significantly different from each other, but white and coloured subjects were significantly different ($p < .03$).

TABLE 38

ANALYSIS OF VARIANCE OF RACE GROUPS ON VARIABLE T FOR AGE CAT. 4. (11 YRS)				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
BETWEEN	2	223.63	111.81	3.47*
WITHIN	85	2738.19	32.21	
* $P < .03$				

TABLE 39

STUDENT-NEWMAN KEULS TEST FOR BLACK WHITE AND COLOURED CHILDREN ON VARIABLE T IN AGE CAT. 4.			
Means with the same letter are not significantly different			
RACIAL GROUP	1	2	3
N	44	24	20
MEAN	20.61	19.71	16.60
GROUPING	A-----A		
		B-----B	

In age category 5 on 'T', the race groups did not differ significantly ($F=0.76$, $p > .05$).

In summary, (refer to Figure 3) white children show a steady decline in ethnocentrism from six to twelve years. Black children seem to have markedly lower ethnocentrism than their white peers at six years of age, but this ethnocentrism increases significantly until the ages of nine and ten and then drops slightly at eleven to twelve years. Coloured children have a generally lower overall ethnocentrism.

At the age of six to seven white children show the highest level of ethnocentrism with the black and coloured children significantly lower, but not significantly different from each other. The same trend is evident at age seven to eight. At nine to ten years the coloured children were significantly lower in their ethnocentrism than the white children. The white children were not significantly more ethnocentric than black children who in turn were not significantly more ethnocentric than the coloured children. This trend continues until the ages of ten and eleven. At the age of eleven to twelve, the three groups converge at a lower level than before and show no significant difference in their ethnocentrism.

5.5 SUMMARY OF RESULTS

Overall the findings seem relatively clear cut, and can be summarised as follows. There are no significant effects of sex on racial attitudes, nor does age have an overall significant effect in itself. While there is a significant overall effect for race group, this was subsumed by a highly significant race group by age group interaction. No other interactions were significant. This meant that the effect of race group on racial attitudes varied significantly at different age levels.

Conversely it meant that the patterning or trend of racial attitudes over different age levels varied significantly between racial groups. This age by race group interaction was shown graphically in Figures 1 - 3. The trends were broadly similar for all three dependant variables, 'N', 'P' and 'T'.

At the youngest age levels whites were most ethnocentric, most positive to their own-group and most prejudiced against the black out-group. At higher age levels, ethnocentrism in white children decreased, progressively eroding the significant differences with black and coloured children. At lower age levels black and coloured children by contrast were much less ethnocentric, less positive to the own-group and less negative to the out-group than whites, with coloureds being somewhat lower than the blacks. At higher age levels black and coloured children tend to become more ethnocentric though the age trend (upwards) did not appear as marked as that for whites (downward).

While own-group preference (or positivity towards blacks in the case of coloureds) seems to increase at higher age levels this was not statistically significant. There tends to be increased negativity to the (white) out-group in higher age groups in black children and coloured children.

CHAPTER 6: DISCUSSION

This study aimed to assess the racial attitudes held by children of different racial groups. Beyond this it sought to clarify the patterning of these racial attitudes between groups, describe their development and compare them across the three groups. The findings in this study provide support for the hypothesis that there are different overall levels or strengths of ethnocentrism, ingroup preference and out-group prejudice between racial groups. This broad comparative analysis has not been attempted previously in South Africa or in the overseas studies in the literature surveyed. The pattern emerging from this sample shows that overall, white children are highly positive towards their own-group, and prejudiced towards the out-group and have the highest ethnocentrism of the three racial groups. Black children are less positive towards their own group and less prejudiced against the white group, than white children are prejudiced against the black group. The overall ethnocentrism in black children is also less than in white children. Coloured children when scored as blacks show least in-group preference, out-group (white) rejection, and ethnocentrism of the three racial groups. However, these overall differences seem to be most marked at the younger age levels studied and are largely eroded at the higher age levels.

6.1 DEVELOPMENTAL TRENDS IN EACH RACE GROUP

It was hypothesised that children in each ethnic group show different trends over increasing age levels. These findings have implications both for the efficacy of the Katz-Zalk Projective Prejudice Test (1976) and for the relation of this sample to those children that have been sampled in racial attitude studies around the world.

There are similarities between the findings for 'T' for the black and white children in this study and those of the original Katz-Zalk study using the Katz-Zalk Projective Prejudice Test (1976). Katz and Zalk (1976) report two analyses of variance on the total score which are comparable to the analyses reported in this dissertation. The first is a main effect for race of subject, ($F=25.90$, $df=1.515$, $p < .001$). This finding can be compared to the one way ANOVA on 'T' in this study where $F= 41.55$, $df=2$, $p < .0001$.

The other finding by Katz and Zalk (1976) that can be compared to the present study is an interaction effect between race of subject and grade of subject (Katz-Zalk findings are: $F=18.61$, $df= 3.515$, $p < .001$), while the finding for this study for a two way ANOVA on race of subject and age category of subject shows a significant interaction effect of $F=4.28$, $df=8$, $p < .0001$. Katz and Zalk (1976) interpret the findings based on the above data thus:

"These scores reveal different patterns for the black and white children. The white children show a steady decrease in racial attitude scores with age, whereas the black children indicate an increase in their scores, to the fourth grade, and a drop at the fifth grade. ... Overall, the black children scored lower than the white children, although this difference is primarily due to the first and second grades." (p. 13)

The first and second grades in Katz-Zalk's (1976) study correspond to the six and seven year old children in the study reported in this dissertation, while the fourth and fifth grades correspond with the children aged ten and eleven. With reference to Figure 3., it appears that there are similarities in trends of ethnocentrism ('T') between the American sample and the South African sample.

The only means of comparing the coloured sample in this study with the subjects of Katz and Zalk's study (1976) could perhaps lie in the comparison with the white American children in their black or white bias, but no comparison can be made with the black American children, as the in-group, out-group valence is very different for the black American children who are identifying with an own-group in the test instrument, unlike the coloured South African children, who are unable to do so.

There were some significant sex difference findings in the Katz-Zalk (1976) study which were not replicated in the present study. Black females scored higher than black males at all ages except age six where the female subjects scored lower. White females also scored lower than white males except at age ten where female subjects scored higher.

6.2 WHITE CHILDREN'S OWN-GROUP PREFERENCE.

According to a survey of the development of white children's racial attitudes, South African white children are entirely aware of racial differences and groupings by the age of six to seven (De Groot, 1978; Foster, 1986; Meij, 1966). By six years of age white children have strong preferences for their own-group and a definite preference for stimuli resembling caucasoid features (Melamed, 1968, 1970).

Some studies suggest that own-group preference in white children declines after the age of seven and that white children show more positive attitudes towards other race groups (Rice, Ruiz and Padilla, 1974; Zinser, Rich and Bailey, 1981). The findings in this study corroborate these findings. White children in this study show very high own-group preference at age six. This decreases in older age groups until it is significantly lower in the eleven to twelve year old group. Thus white children have the greatest own-group preference, but with age the own-group preference decreases. It is however always at a higher level than black and coloured children. Some prior South African research has indicated that white own-group preference increases after six years (Moodie, 1980; Barling, 1981). These findings are in contradiction to the findings of these studies.

6.3 WHITE CHILDREN'S OUT-GROUP PREJUDICE.

The studies surveyed suggest that white children are highly prejudiced against the out-group by the age of seven and that this prejudice decreases after seven years when white children become less negative towards the out-group (Rice, Ruiz and Padilla, 1974; Zinser, Rich and Bailey, 1981). White childrens' prejudice is also the highest of the three groups sampled in this study. Again the white children are the most prejudiced against other groups at six , this pattern declines slightly until there is a significant drop in prejudice at eleven to twelve years.

6.4 WHITE CHILDREN'S ETHNOCENTRISM

In terms of total racial bias and ethnocentrism, white children are most ethnocentric of all the racial groups. Their ethnocentrism is highest in the six year old group, decreasing slightly for the nine to ten year old group and dropping significantly at eleven to twelve years.

**6.5 BLACK CHILDREN'S OWN-GROUP PREFERENCE*

Black children prefer their own-group significantly less than their white counterparts and their own-group pride does not seem to move from this level significantly during the developmental period from six to twelve. Whether or not the lower own-group preference in black children reflects a kind of white preference or misidentification is not clear here. Studies abroad suggest that black children begin by preferring the white group and identifying with that group and that this decreases with chronological age (Hraba and Grant, 1970; Fox and Jordan, 1973; Katz and Zalk, 1974). It is not possible to extrapolate from the data anything but a general pattern of own-group preference that does not seem to change significantly with chronological age, but that is lower than the white group.

6.6 BLACK CHILDREN'S OUT-GROUP PREJUDICE

In this study black children are much less prejudiced than the white children at six years old. Black children's prejudice lessens from this level slightly during the age of seven to eight years. During the age of nine to ten years however, the level of prejudice rises significantly, staying level until eleven years and then it drops again at twelve years.

This finding is consistent with findings by Asher and Allen (1969), and Vaughan (1964) who found strong out-group preference and identification in black children between four and six which lessens as the child grows older. Correspondingly black children are much less prejudiced towards the outgroup at an early age. The tendency for this prejudice to increase with age may be linked to the greater own-group identification that has been noted by studies abroad (Davey, 1983; Loudon, 1981; Katz and Zalk, 1974). However this study did not find significant increases in pride in the older age groups for black children. The levelling of prejudice at eleven years and drop in the level of prejudice at twelve years may possibly be related to a growing awareness that it is socially unacceptable to express strongly prejudiced attitudes.

6.7 BLACK CHILDREN'S TOTAL ETHNOCENTRISM

Overall ethnocentrism is greatest at the ages of ten to eleven, while ethnocentrism is significantly lower at the age of seven to eight years. Between these extremes are ages six to seven and eleven to twelve, where black children seem to be at a level of ethnocentrism that is lower than their white counterparts. Again the ethnocentrism is an amalgam of the pride and prejudice score and is a function of their fluctuations.

6.8 DEVELOPMENTAL TRENDS FOR THE COLOURED GROUP

Findings for the coloured group are limited by the methodological shortcomings of the study. The Katz-Zalk Projective Prejudice Test (Katz & Zalk 1975) was designed for black and white American children. The coloured children of South Africa generally differ in appearance different from each of the extremes of light and dark skin pigmentation depicted in the slides. Also there was no third group as such depicted in the slides and the coloured child was forced to identify himself or herself with either the black or the white group.

The findings suggest that the coloured children seem to remain fairly neutral in their orientation either towards white or black. There is no clear developmental pattern that emerges and both out-group (white) prejudice towards whites and in-group (black) preference is lowest for all the groups. It is possible that there may be no strong attitude about either the black or the white group, and that own-group preference (in the sense of a "coloured" identity) may be stronger than has been revealed here. It remains for the Katz-Zalk Projective Prejudice Test to be adapted so that coloured children are able to identify their own-group in the slides, in which case own-group preference and identification and out-group prejudice can be tested.

6.9 IMPLICATIONS OF THE PRESENT STUDY

The Katz- Zalk Projective Prejudice Test has been successfully used in this sample as a test of the attitudes of black and white children. With this instrument it has been possible to examine black and white children's attitudes towards their own and the other group. The lack of clear trends of identification and preference in coloured children may help to confirm the validity of the test and shows that it is race specific, that is that white and black children recognise themselves in the test whereas the coloured children seem to recognise that they are not represented.

The findings of this study have been shown to have similarities with other South African studies of racial attitudes, this in itself lends validity to the Katz-Zalk Projective Prejudice test and its application in this country.

Within the confines of this specific sample it can be concluded that despite the extreme emphasis on differentiation of the population by race in South Africa, children here and abroad seem to have similar trends in racial attitude development. This can be seen most clearly in a comparison with the Katz-Zalk Projective Prejudice Test findings (Katz-Zalk, 1976) in New York.

White children showed a steady decrease in racial attitude score with age and Black children showed an increase in their scores, to the fourth grade (age 10 to 11) and a drop at the fifth grade (age 11 to 12). It was found in the Katz-Zalk (1975) findings that overall, black children scored lower than white children. These findings are exactly replicated in the present study.

Three major reviews of the literature (Aboud, 1984; Brand, Ruiz and Padilla, 1974; and Katz, 1976) concur that whites overall show more own-group preference and other-group rejection than blacks.

Aboud (1984) concludes that in white children own-group attitudes become less positive and other group attitudes less negative. Black children on the other hand developed increased favourability towards blacks and less favourability towards whites. The findings in the present study are in direct agreement with the above findings, although the increased own-group positivity among black children with age was not statistically significant.

The sudden decline in white's out-group prejudice at ages eleven to twelve and the sudden decline in out-group prejudice in black children from eleven to twelve years in this study may have been due to what Katz and Zalk (1976) describe in their study as, "an artifact of the older child's increasing sophistication and awareness of the socially desirable response." (p. 33)

The findings in this study are similar to the results of similar studies abroad. It is therefore evident that there is no major difference between the development over age of South African children's racial attitudes in apartheid South Africa where racial differences are embodied in the country's constitution and the children surveyed in the studies abroad in respect of racial attitude development. However, the increase in own-group preference for black children in this study was not significant in South Africa, whereas it was in the U.S.A. The apartheid culture in South Africa may be responsible for the lower own-group pride in South African black children.

Aboud's theory provides a fairly close framework for the findings in this study.

Aboud expects a general decline in prejudice after the age of seven, with the shift from affective - perceptual to cognitive processes. This fits the pattern of racial attitudes for whites very well. Black children do not fit in so clearly. However, Aboud's second developmental sequence involving shifts of emphasis from self to the group to the individual perspective may help to account for the finding that from seven years, black children's ethnocentrism increases.

This could reflect a shift from a self to a group perspective since their black group identification will then influence their attitudes. Given the politicised milieu of most black communities, this would account for the increase in prejudice and total ethnocentrism. The slight decrease for blacks at age eleven to twelve might reflect Aboud's shift to cognitive processes as well as the shift from group to individual perspective.

Aboud's theory, however does not easily explain why blacks initially (age six to seven) are so low on own-group preference, prejudice, and ethnocentrism. It seems that as Aboud (1988, p126-127) concedes that social value theory may provide a better account for this phenomenon, and may therefore have more explanatory relevance at these younger ages (four to seven years old).

6.10 LIMITATIONS OF THE PRESENT STUDY AND RECOMMENDATIONS FOR FURTHER RESEARCH IN THIS FIELD.

The potential for examining the racial attitudes of the Coloured group was particularly hampered by the methodology used. The Katz-Zalk Projective Prejudice Test only depicts black and white children. Unfortunately it was not possible to include pictures of Coloured children as it would involve a complete reworking of the instrument. This would need to happen on three levels; first, the slides would need to be refilmed using South African children representative of each racial group. Second, perhaps then the answers to the question could be arranged on a likert scale rather than a forced choice option. This would allow for more levels of intensity to be assessed.

Finally, the scoring would have to be developed to accommodate more than two groups. One of the greatest problems facing this type of research is the difficulty of testing the attitudes of young children. The methodology has thus far been confined to simple methods, and this makes theory testing very difficult. Another problem is the proliferation of methods of testing attitudes in children and the lack of comparative studies which would enable more accurate comparison across methodologies.

The present findings also did not permit direct testing of causal theories of racial attitude development. In order to test such theories, it would be necessary to include measures of possible causal processes in new research. For example, measures of the development of the kind of cognitive processes and social perspectives noted by Aboud could be included in the research to see if these processes and perspectives would be directly associated with change in prejudice and ethnocentrism.

Apart from this there is a vital need for a synthesis of the various theoretical vantage points into an integrated approach. This would allow for a more methodical testing of theory in this area. Finally it must be noted in the context of this particular study that the results may not be applicable to all black, white and coloured children in South Africa who may deviate from this group due to variables such as language, class and region of residence. For example, while subjects in this study were middle class, middle class black families and middle class white families fall into very different socio-economic strata. The coloured children were English speaking, who compose a small upper socio-economic and sophisticated section of the "coloured" population.

There is a great deal of work to be done in this field of research. New methods need to be developed to approach racism in children in new and challenging ways.

Apartheid South Africa as it was when this study was done is rapidly evolving to encompass a more racially integrated society. The challenge is to move towards the new South Africa with plans to discover how children interact with other races and how they resist the adverse effects of apartheid, and how they are building a society beyond apartheid.

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APPENDIX

Table A

Katz-Zalk

Opinion

Questionnaire

NAME _____

SCHOOL _____

CLASS _____

AGE _____

(tick one): BOY _____ GIRL _____

DATE _____

WHAT IS YOUR FATHER'S OCCUPATION? _____

WHAT IS YOUR MOTHER'S OCCUPATION? _____

=====

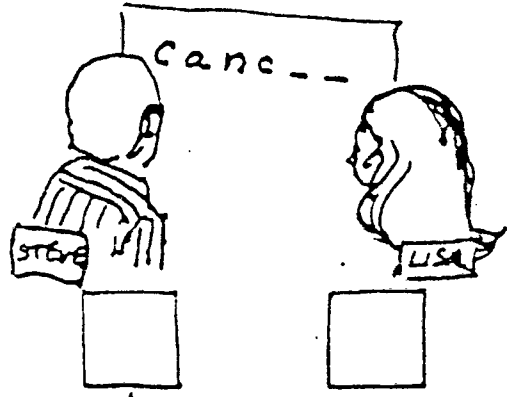
EXAMINER _____

N _____

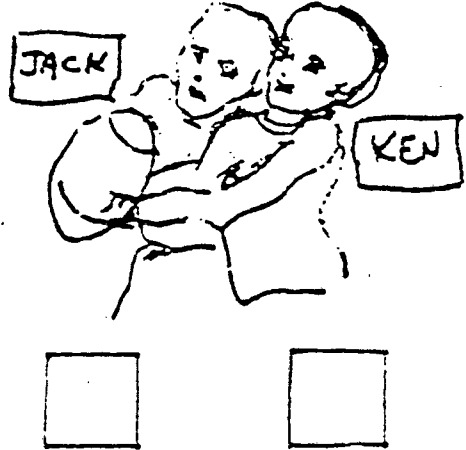
P _____

T _____

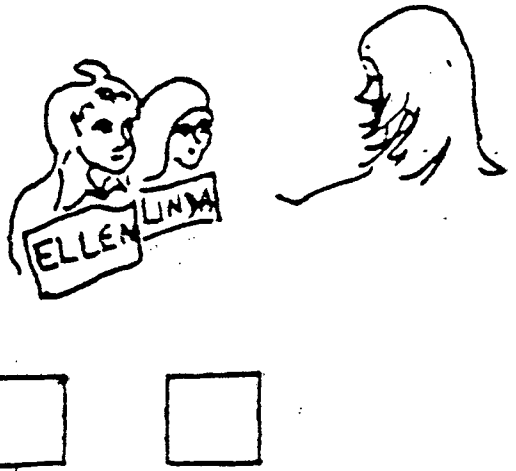
1. These two children are in a spelling contest. Who is the better speller?



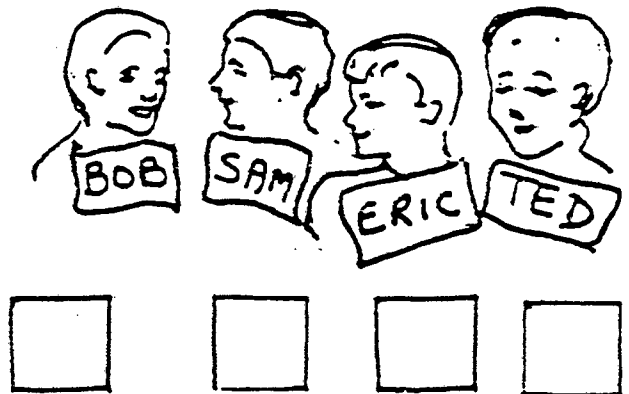
2. Both these boys caught the football at the same time, but only one of them will make the football team. Which one will make the team?



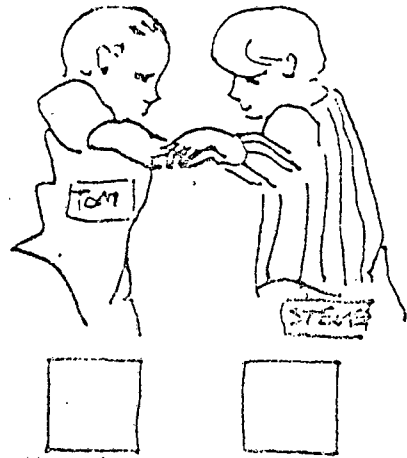
3. The teacher is very angry with one of these girls because she's been bad all week. Who is the teacher angry with?



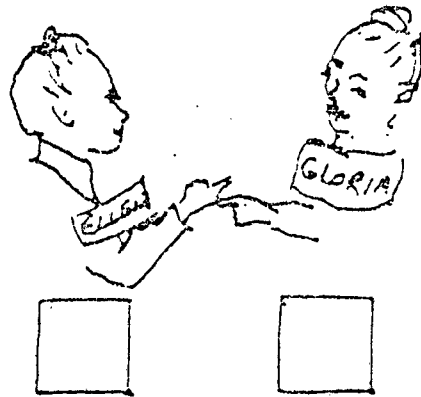
4. One of these boys is always invited to all the parties because everyone likes him. Which boy does everyone like?



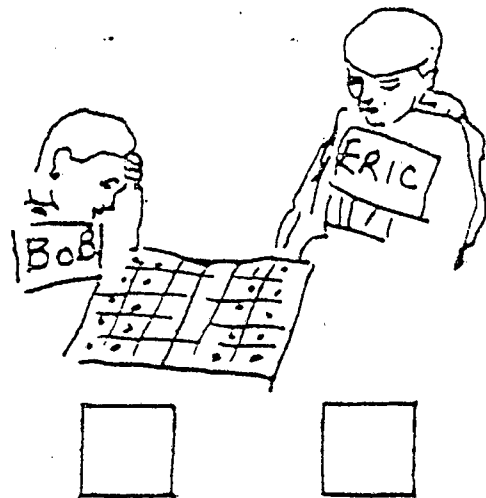
5. Steve and Tom are fighting. One of them is a bully and always starts fights. Which one is the bully?



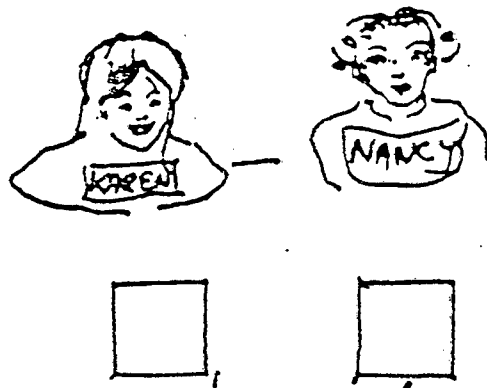
6. These two girls are arguing. One of them is nasty and is always yelling at people. Which one is nasty?



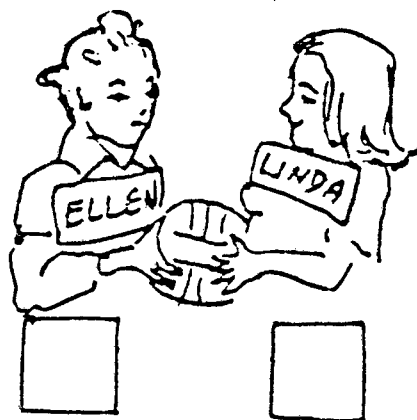
7. These boys are playing chess. Who is the better chess player?



8. One of these children has trouble learning and never understands the lesson. Which one?



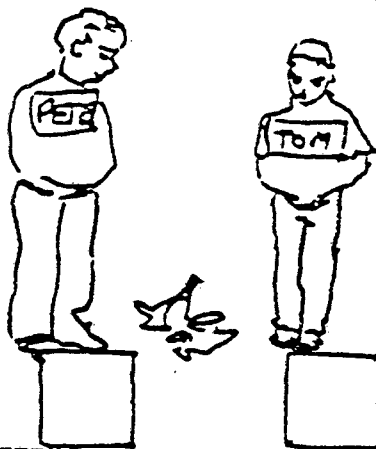
+ 9. One of these girls is going to get a medal for being the best player on the volleyball team. Which girl is getting the medal?



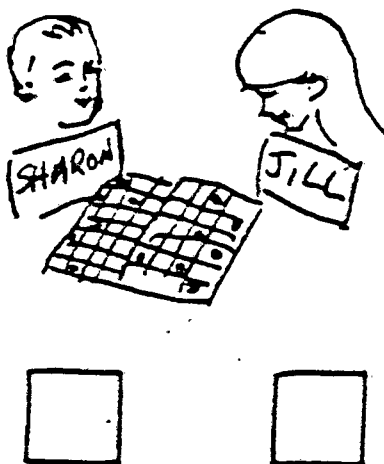
+ 10. These two boys are running for class president. Which one is going to win?



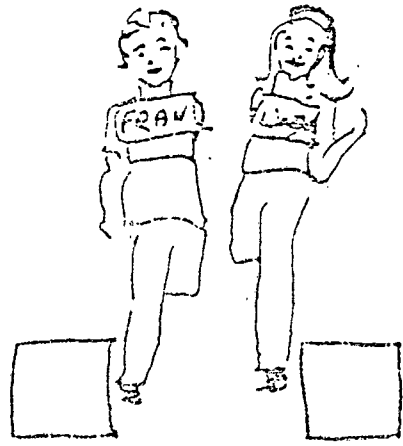
- 11. One of these boys threw his garbage on the floor instead of putting it in the wastepaper basket. He's going to walk away and leave it there. Who threw the garbage on the floor?



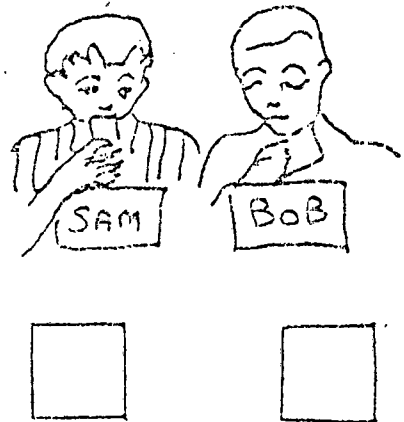
12. Sharon and Jill both have six pieces left. Which child will win the checkers game?



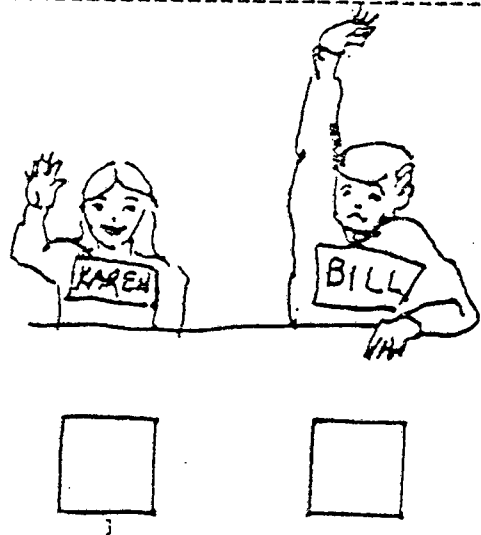
13. These two girls are about to play a game of hopscotch. Which one is going to win?



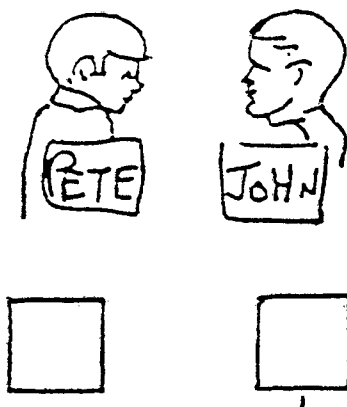
4. These two boys are eating candy. One of them stole his from another child. Which boy stole the candy?



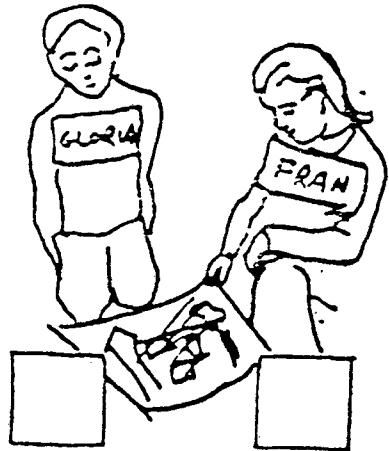
5. One of these children always answers the teacher's questions wrong, and never knows the right answers. Which one always answers wrong?



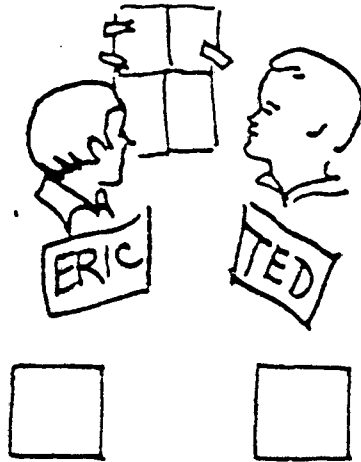
6. These two boys are arguing over something silly. One of these boys is always starting arguments with someone. Which one is always starting arguments?



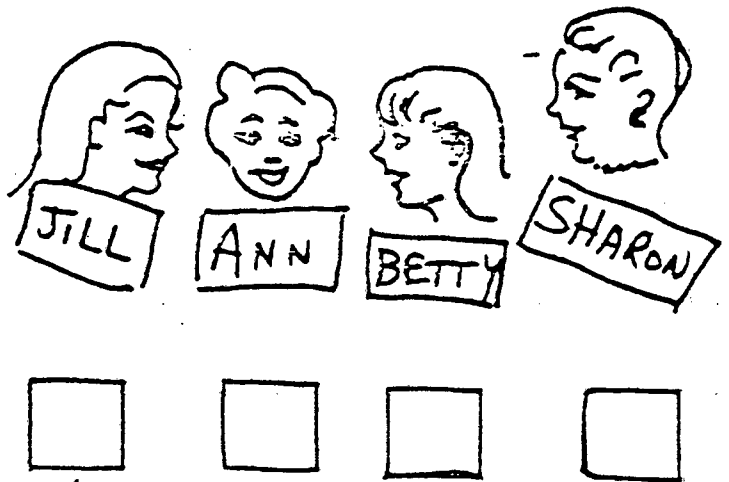
- 17. One of these girls scribbled on the other girl's painting. Who did the scribbling?



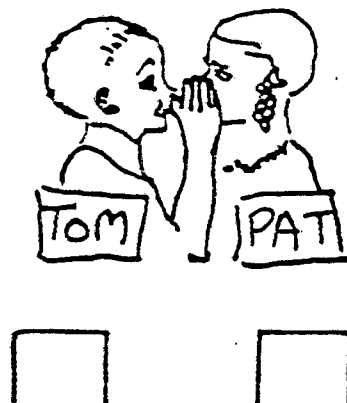
- 18. One of these boys threw a brick at the classroom window and broke it. Who did it?



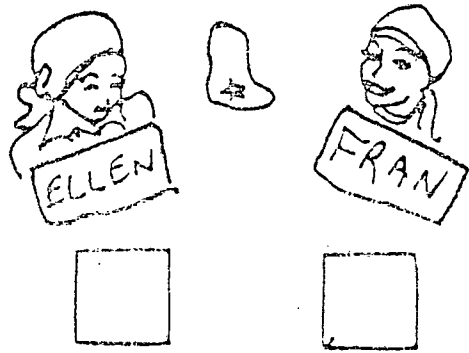
- + 19. All the girls always like to play with one of these girls because she is so nice. Which girl does everyone like to play with?



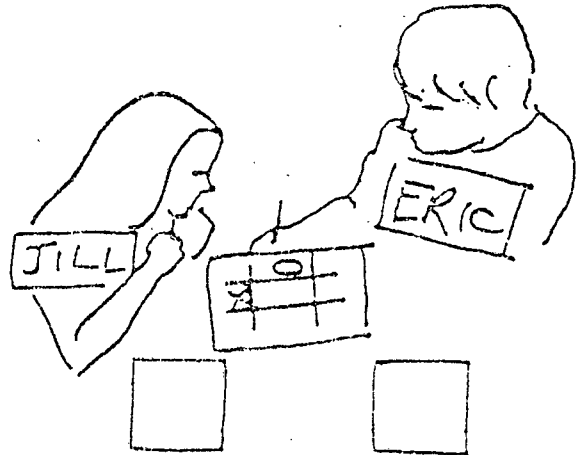
- 20. One of these children always tells lies about friends when they're not around. Which one?



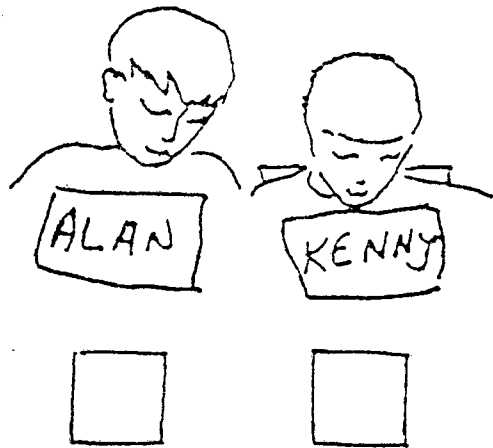
+ 21. These two girls are trying out for the same part in a play. Who will get it?



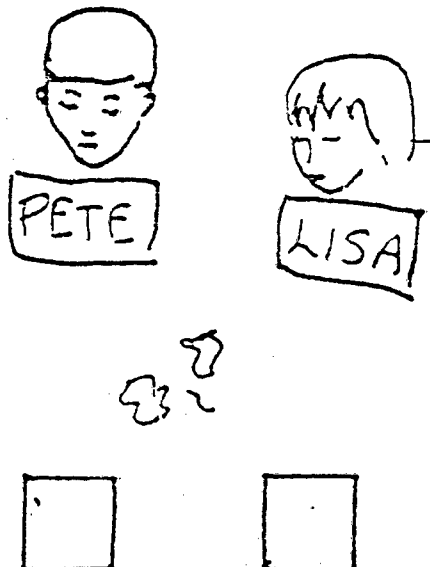
22. These two children are playing tic-tac-toe. Who will win?



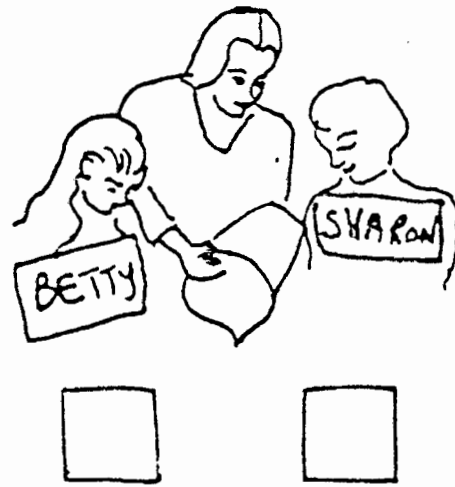
+ 23. One of these boys always finishes all his lessons first and always has the right answer. Which one?



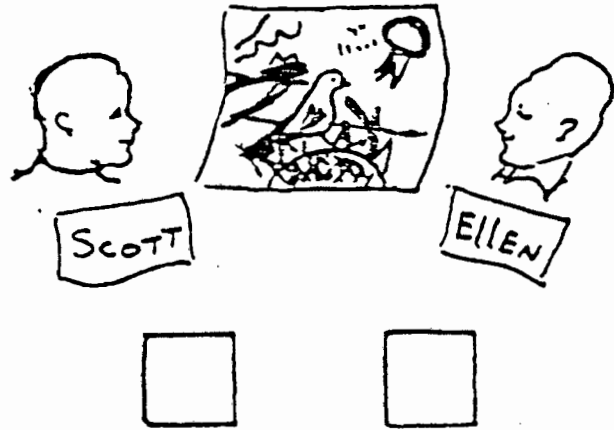
F-24. One of these children spilled paint all over the floor and left it there. Which one?



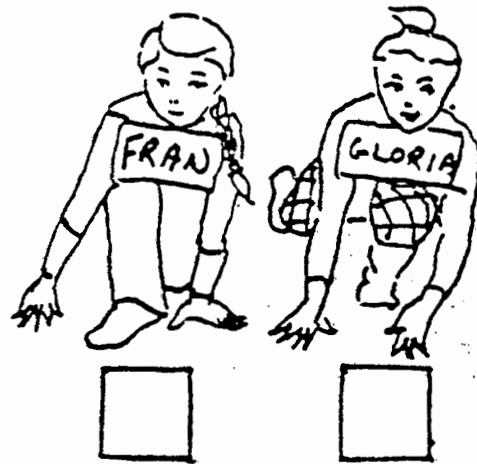
25. One of these girls was playing with matches and started a fire in the wastepaper basket. The teacher is pouring water on the fire to put it out. Which girl started the fire?



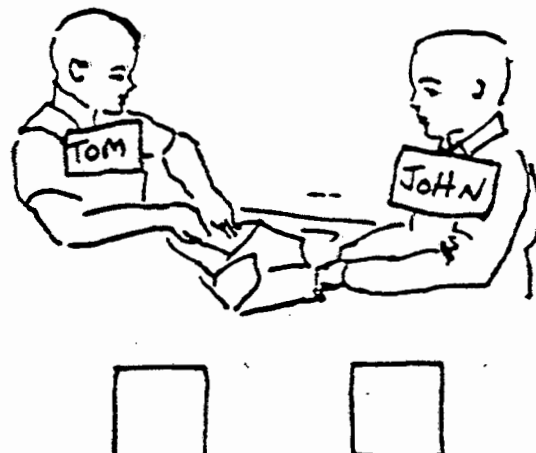
26. This picture won first prize in an art contest. Which child drew it?



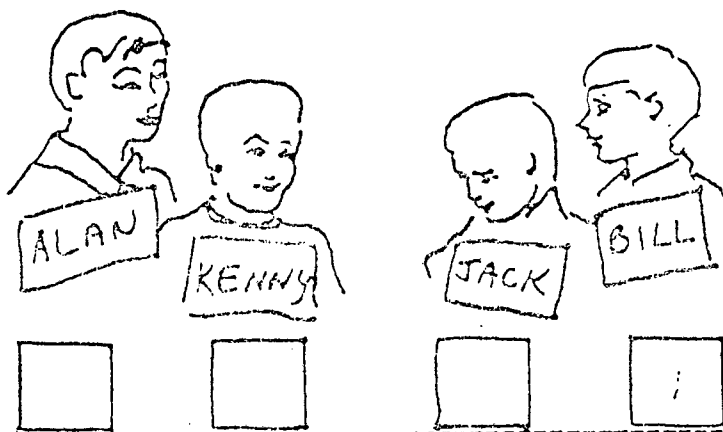
27. These two girls are both fast runners. They are going to race one another. Who will win?



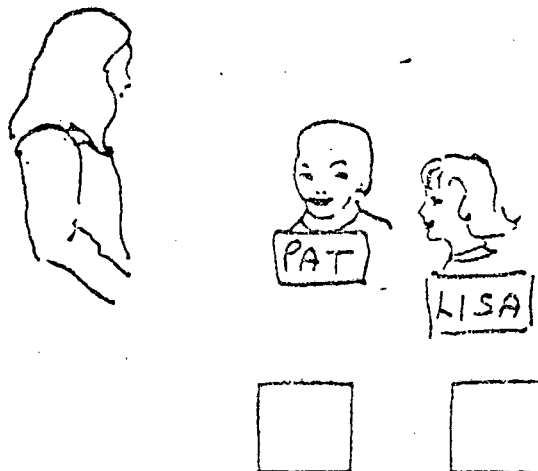
28. One of these boys got mad and ripped the other boy's shirt. Which boy ripped the shirt?



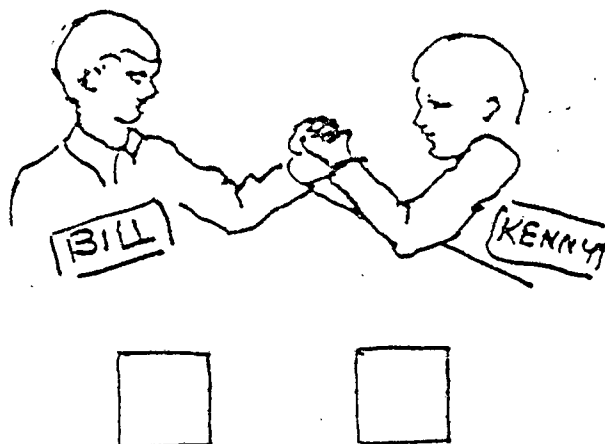
- 29. A boy in the class is having a party. He does not like one of these boys and is not going to invite him. Which one is not going to be invited to the party?



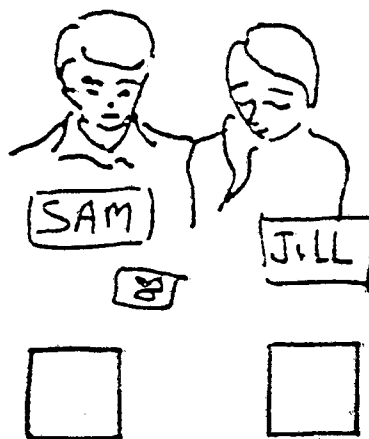
- 30. The teacher is asking both children what happened in the cafeteria. They are both telling different stories. She knows who to believe because one of the children always tells lies. Which one always lies?



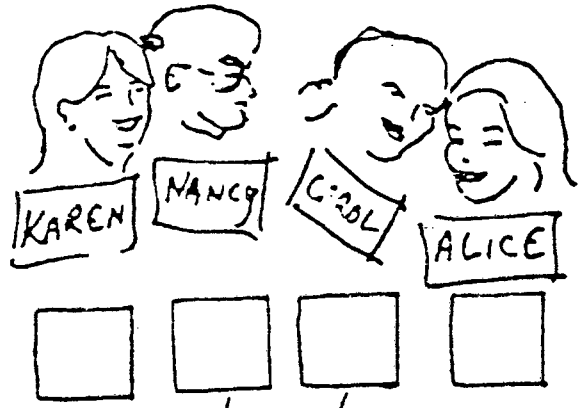
+ 31. Bill and Kenny are having an arm wrestling match. Who will win the arm wrestling match?



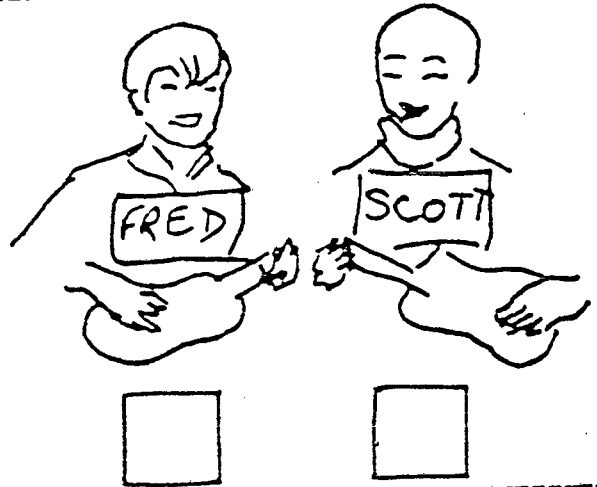
MF- 32. One of these children always takes things that belong to someone else and keeps them. Which child?



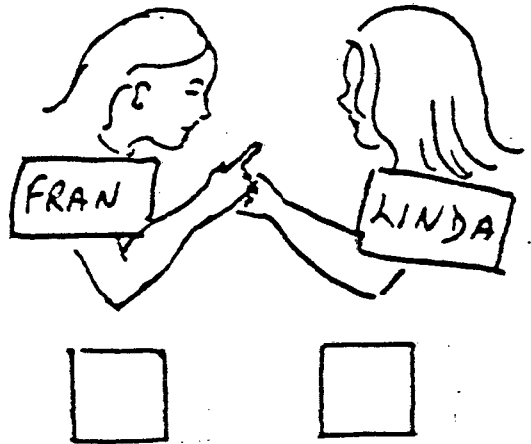
- 33. These girls are waiting to be picked for a team. Nobody likes one of these girls and she will be picked last. Which one will be picked last?



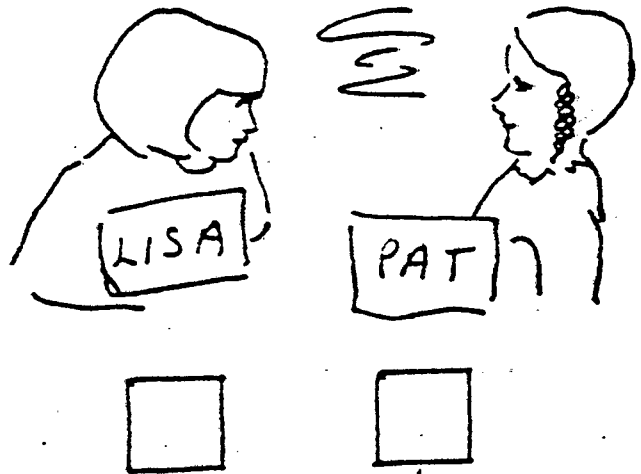
+ 34. These two boys are playing their guitars in the school talent show. Only one of them can win the contest. Which one will win?



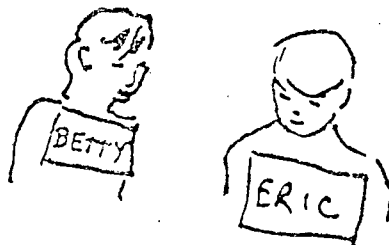
35. These children are fighting because one of these girls pulled the other girl's hair. Which one did it?



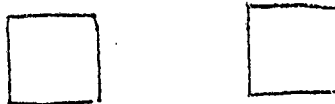
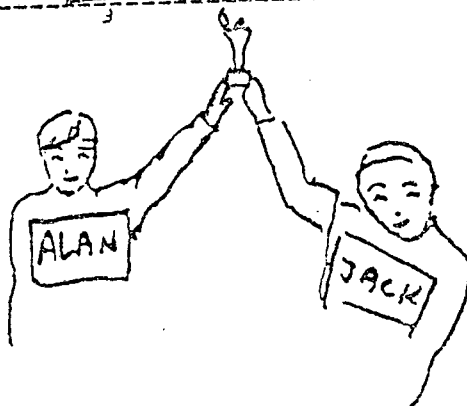
- 36. One of these kids scribbled on the classroom wall. Who did it?



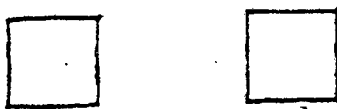
37. When the teacher left the room, one of these children pulled all the papers out of the teacher's desk and threw them on the floor. Which child did it?



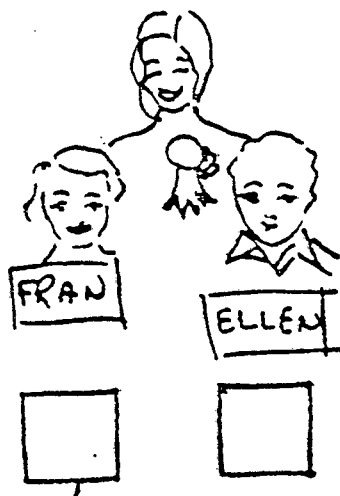
38. One of these boys is winning a trophy for being the best athlete in the class. Which one is winning the trophy?



39. One of these children has no friends and is always alone. Which one has no friends?



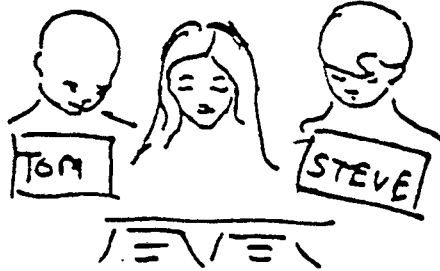
40. This class just won an award. One of these children was elected to get the award for them. Which child did the class choose?



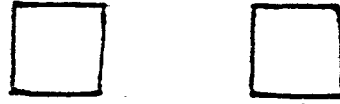
MF - 41. One of these children was bad. The other child was told to take the bad child to the principal's office. Which child was bad?



- 42. These two boys had the same answers on their tests. One cheated from the other. Which boy cheated?



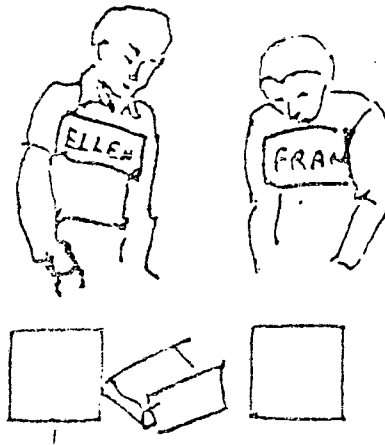
- 43. Both these girls are going to try to do this math problem. Which one will solve it?



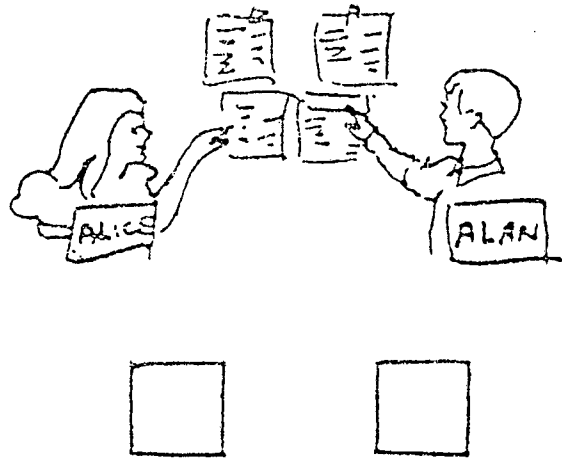
- 44. One of these boys has been bad. The teacher is saying that she is going to punish him if he doesn't change. Which boy has been bad?



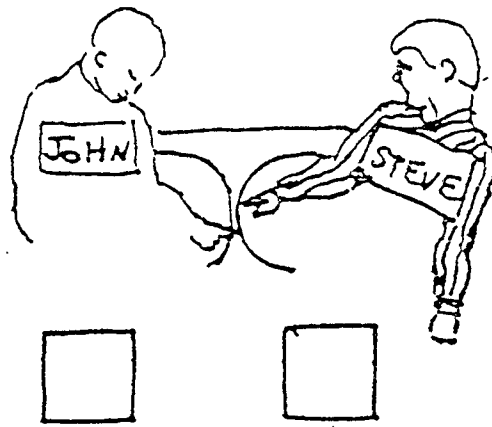
-45. One of these girls threw the other girl's books on the floor. Which one threw the books down?



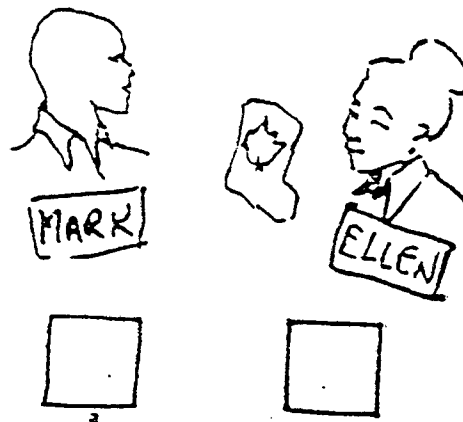
F + 46. One of these children always gets good grades. The teacher put that child's tests on the wall to show the class. Which child got the good grades?



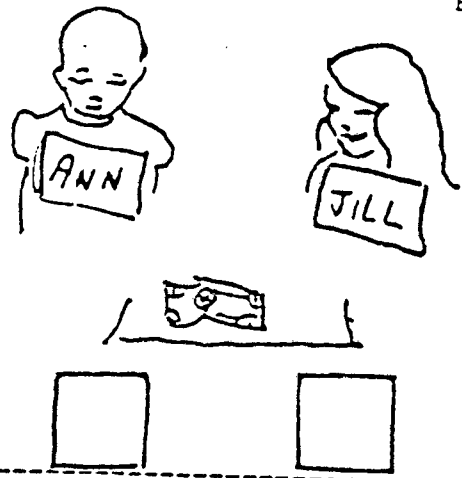
r 47. These two boys are looking at maps of the moon. One of these children is the best in his class in science. Which one?



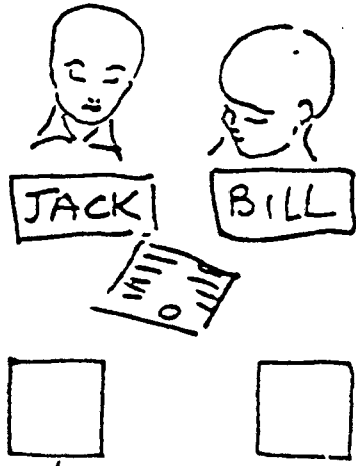
7 F + 48. One of these children is always elected by the other children to take over when the teacher has to leave the room. Which one?



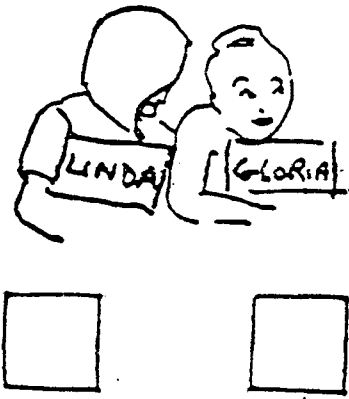
- 49. The teacher left this money on her desk. One of these children is thinking about taking the money and keeping it. Which child may take the money?



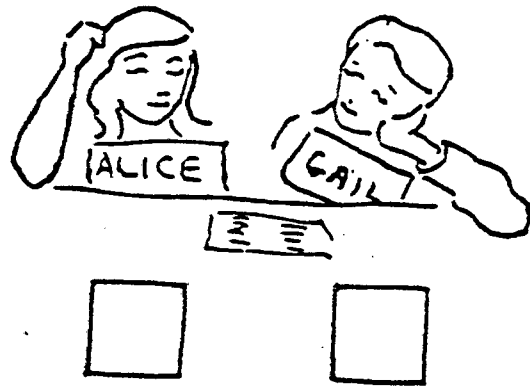
- 50. One of these boys never does well in school. He got all the answers wrong on his test. Which one?



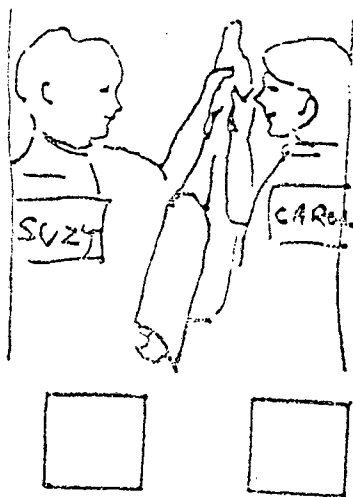
- 51. One of these girls is nasty and is pushing the other girl out of her seat just to be mean. Which girl is mean?



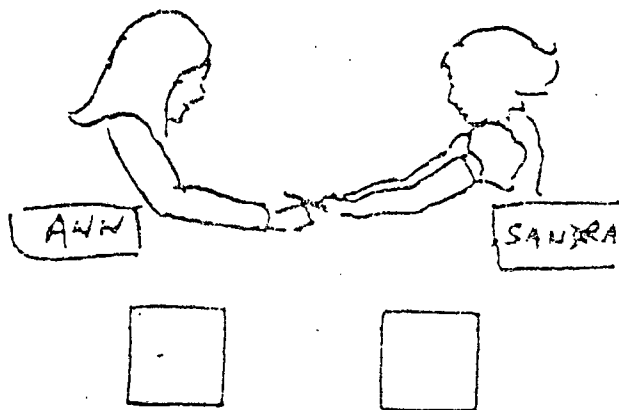
+ 52. One of these children is very smart and got 100% on the test. Which child?



53. These girls are trying to take the same coat. It belongs to one of them. Which girl owns the coat?



54. Both girls are pulling on a puzzle. The puzzle belongs to one of the girls and the other one is trying to take it away. Which girl is trying to take away the puzzle?



55. One of these children is very popular and has a lot of friends. Which child?

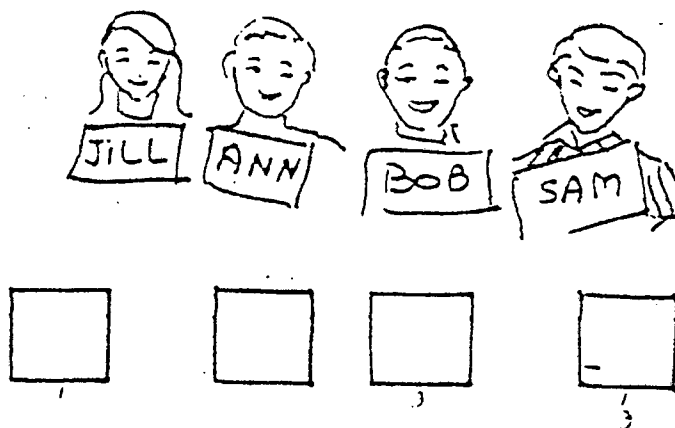


Table B
KATZ-ZALK
ULUVO
IMIBUZO

IGAMA _____

ISIKOLO _____

IBANGA _____

IMINYAKA _____

(ketha) INKWENKWE INTOMBI

UMHLA

YINTONI UMSEBENZI KATATA? _____

YINTONI UMSEBENZI KAMAMA? _____

=====

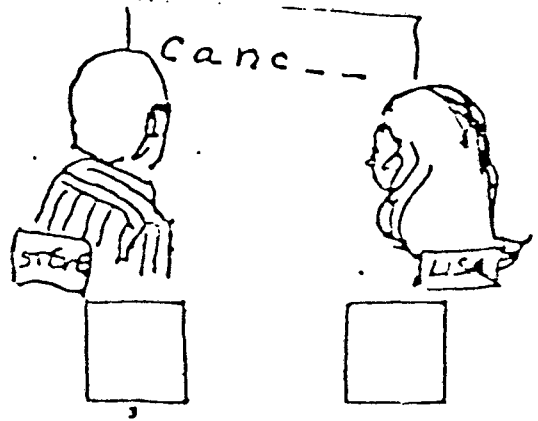
UMHLOLI _____

N _____

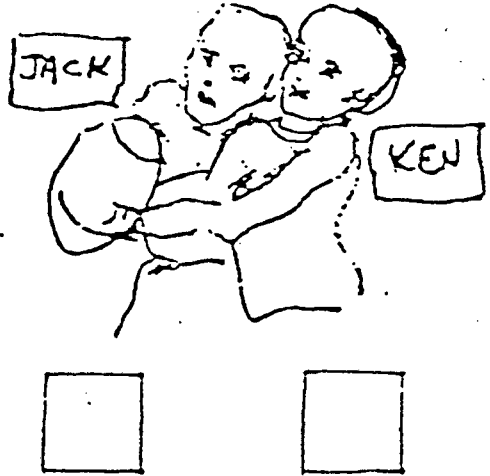
P _____

T _____

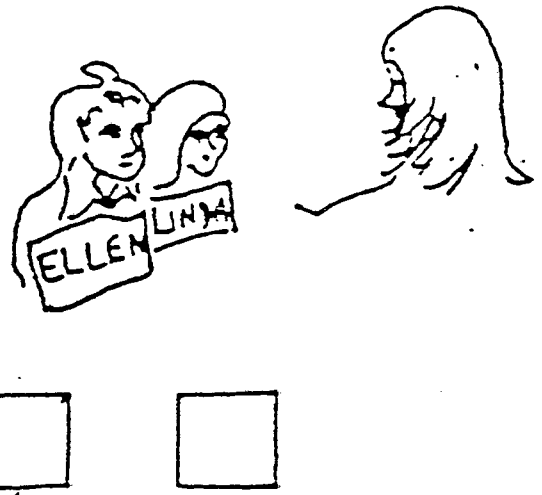
1. Aba bantwana babini bakukhuphiswano obizo magama. Ngowuphi obiza ngcono?



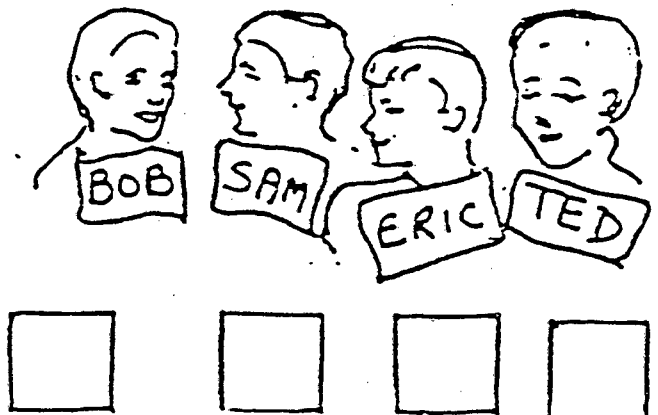
2. Omabini la makhwenkwe ayibambe gaxeshanye ibhola, kodwa inye kuwo eza uba seqeleni lebhola. Yeyiphi?



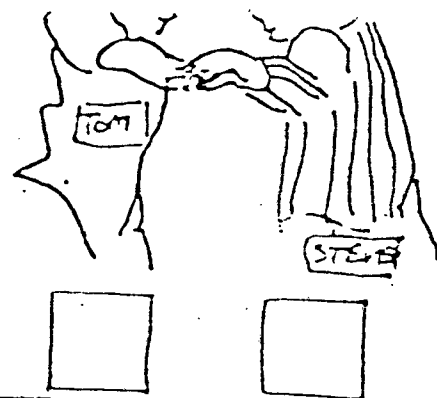
3. Utitshala uyiqumbele enye yala tombazana kuba ibigeza yonke iveki. bani oqunjelwe ngutitshala?



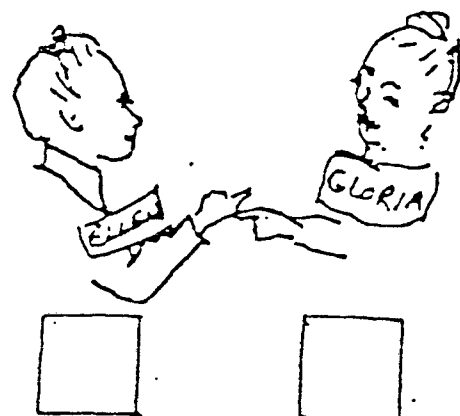
4. Inye yala makhwenkwe isoloko imenywa iyolo kuba wonke u uyayithanda. Ngeyiphi lenkwenkwe ndwa ngumntu wonke?



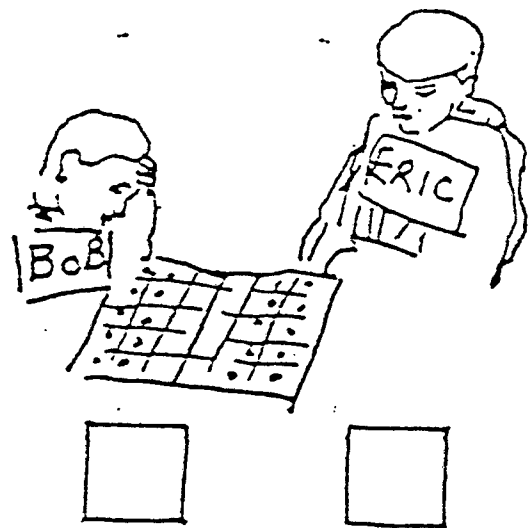
USteve noTom bayalwa. Omnye wabo
ochuku usoloko eqala umlo. Ngowuphi
ochuku. La mantombazana mabini
axambulisana. Enye yawo ayinambeko
bloko iqala umlo. Ngowuphi onochuku?



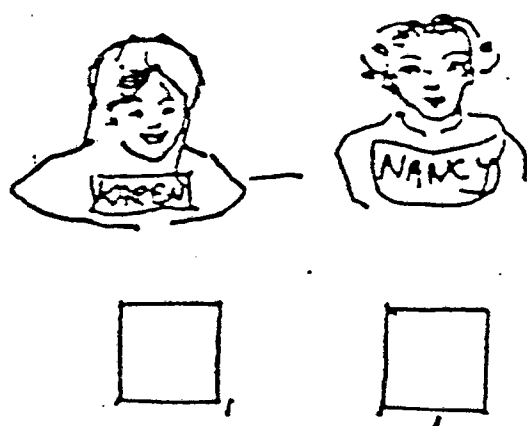
La mantombazana mabini
axambulisana. Enye yawo ayinambeko
bloko ingxolisa abantu. Ngeyiphi
ombazana engenambeko?



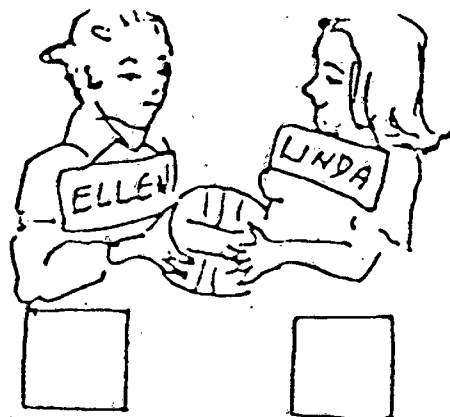
La makhwenkwe adlala umdlalo wechess.
ani umdlali wechess ongcono?



Omnye waba bantwana unengxaki
funda kwaye akazilandeli izifundo.
uphi?



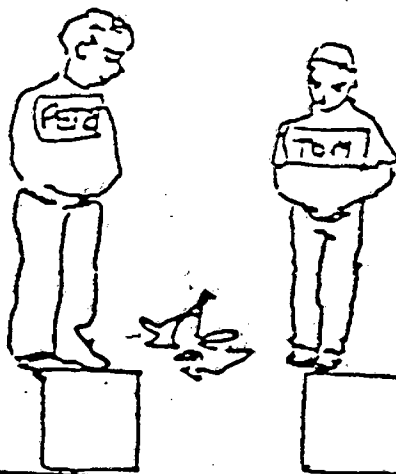
9. Enye yala mantombazana iza kufumana imbasa yokuba ngumdlali oqaqambileyo kwiqela levolleyball. Ngeyiphi intombazana efumana imbasa?



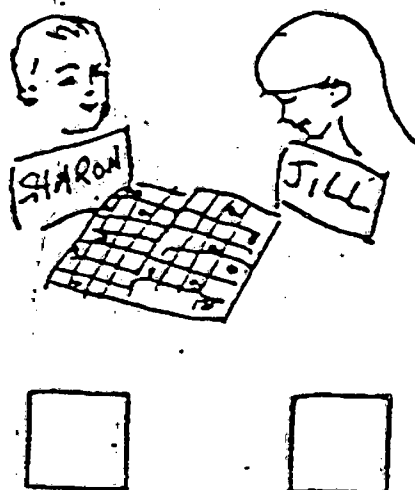
10. La makhwenkwe abalekela ukuba umphathi weklasi. Ngeyiphi eza uphumelela?



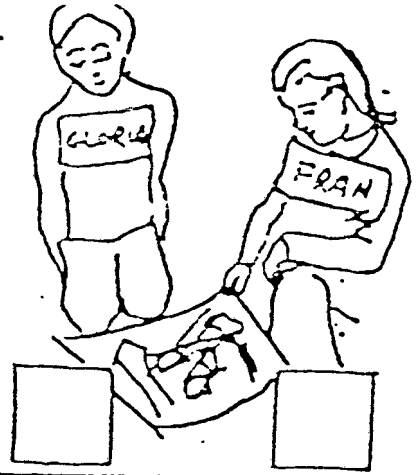
11. Enye yala makhwenkwe ilahle izinto zimdaka phantsi endaweni yokuba izifake ngqomeni wamaphepha. Iza kuhamba ishiye apho loo nkunkuma. Ngubani lahle inkunkuma phantsi?



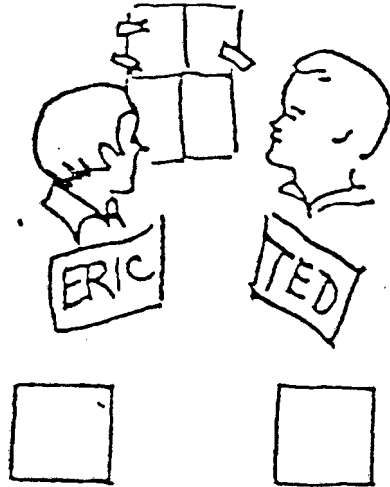
12. USharon noJill banamacwecwe athandathu ashiyekileyo. Ngowuphi mtwana oza kuphumelela icheckers game?



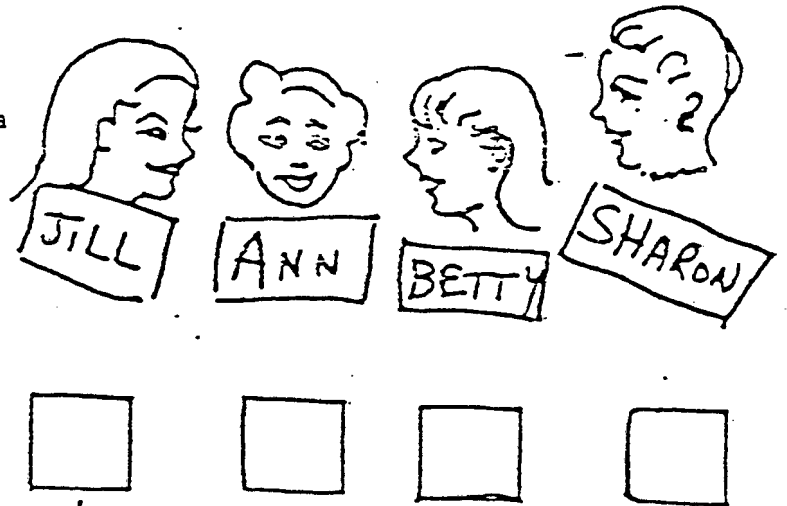
17. Omnye wala mantombazana umoshe umzobo wenye intombazana. Ngubani omoshe umzobo?



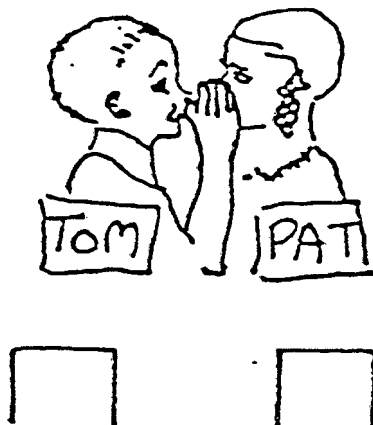
18. Enye yala makhwenkwe igibisele ifestile yegumbi lokufundela ngesitena yaza yayophula. Ngubani ophule ifestile?



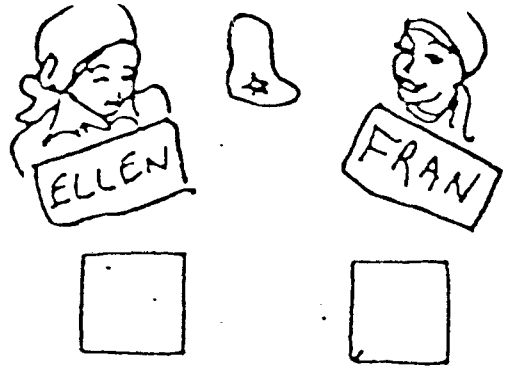
19. Onke la mantombazana ayakuthanda ukudlala nenye yawo ka ilungile. Ngeyiphi intombazana athandwa ukudlalwa nayo?



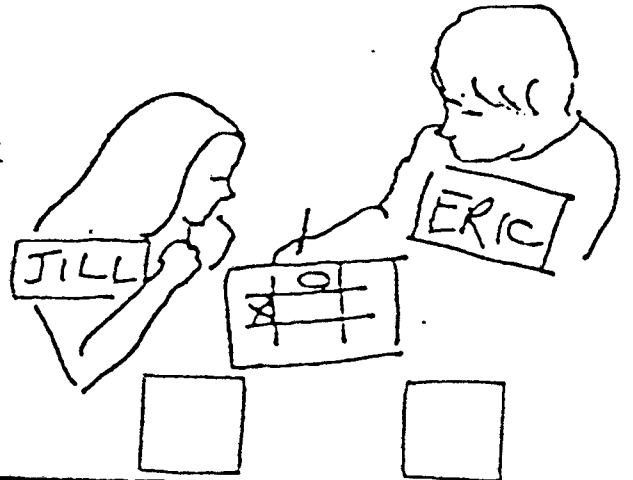
20. Omnye waba bantwana usoloko ethetha ubuxoki ngabahlobo xa bengekho. Ngowuphi?



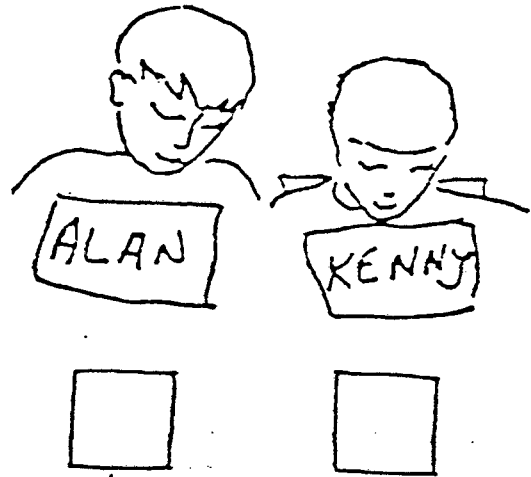
21. La mantombazana afuna indawo enye kumdlalo weqonga. Ngubani oza kuyifumana?



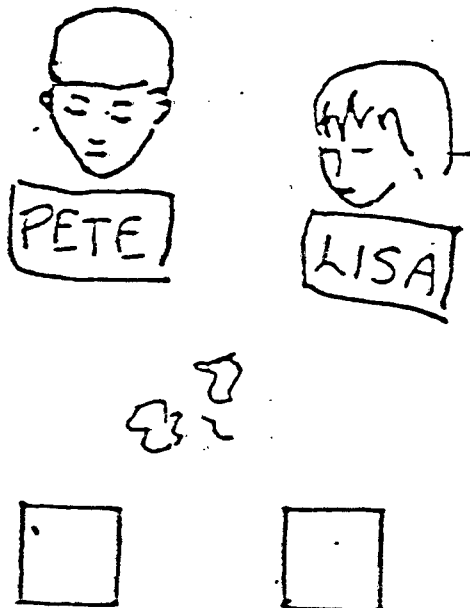
22. Aba bantwana babini badlala itic-tac-toe (inaughts and crosses). Ngubani oza kuphumelela?



23. Enye yala makhwenkwe isoloko izigqiba kuqala izifundo zayo kwaye isoloko iphendula lungileyo. Ngeyiphi?



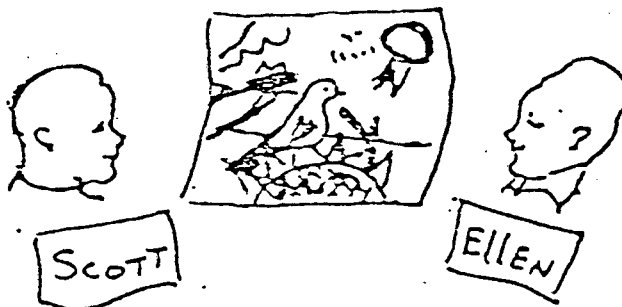
24. Omnye waba bantwana e uchithe ipeyinti waza wayishiya apho Ngowuphi?



Enye yalo mantombazana ibidlala
omatshisi yaza yatshisa kumgqomo
maphepha. Utitshala ugalela amanzi
ucima umlilo?

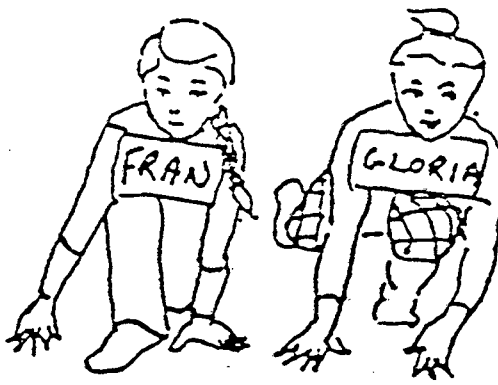


26. Lo mfanekiso uphume phombili
kukhuphiswano lokuzoba ngowuphi
umntwana owuzobileyo?



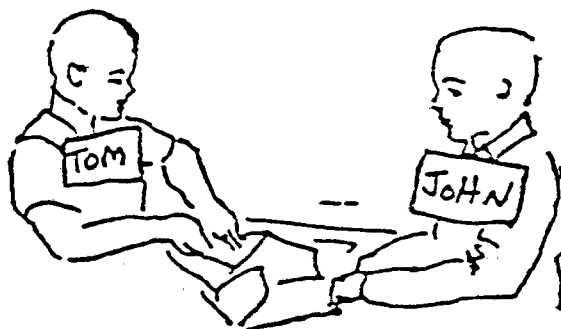
3

La mantombazana mabini azimbeleki
iphambili. Azakukhuphisana. Ngubani
a kuphumelela?

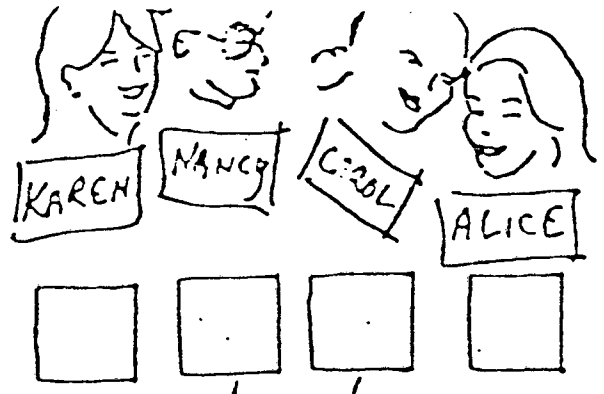


1

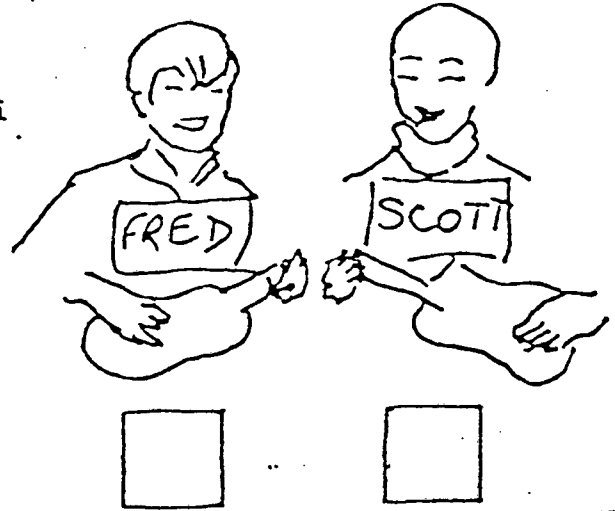
Enye yala makhwenkwe ibe nomsindo
za yakrazula ihempe yenye inkwenkwe.
eyiphi inkwenkwe ekrazule ihempe?



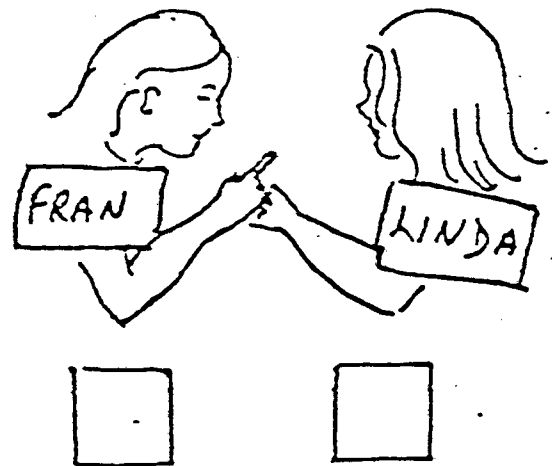
4. La mantambozana alindele ukuba
yulwe. Akekho umntu oyithandaya enye
la montombazana kwaye iza kwenyulwa
a. Ngeyiphi eza kenyulwa mva?



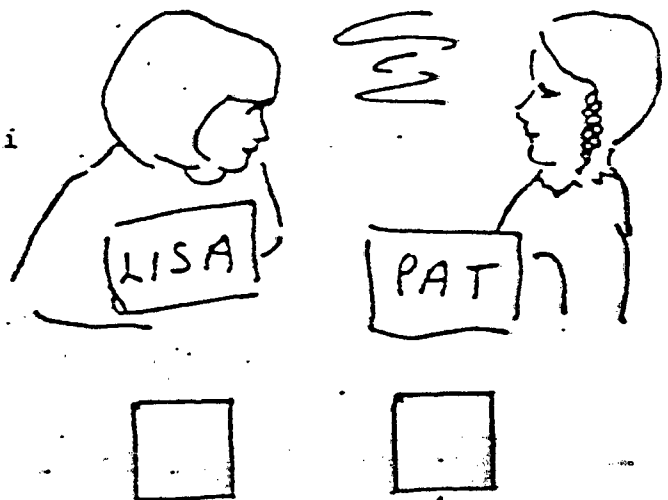
5. La makhwenkwe mabini adlala iziginci
kwo kumboniso wesikolo. Inye kuphela
okuphumelela olu kuphiswano. Yeyiphi?



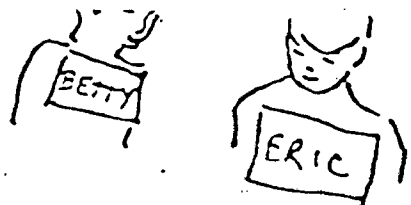
6. Aba bantwana bayalwa kuba enye yala
intombazana itsale iinwele zenye
intombazana. Ngeyiphi intombazana etsale
iinwele?



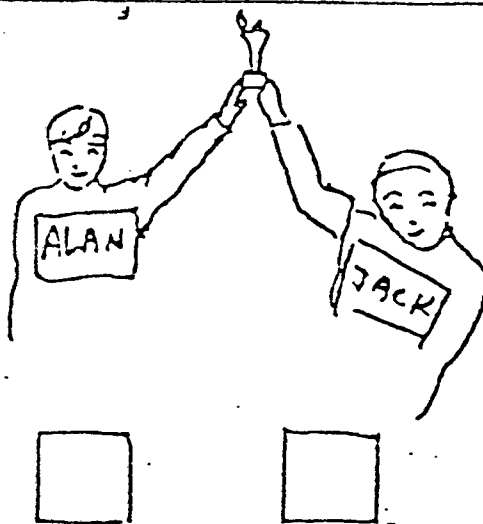
7. Omnye waba bantwana ubhale
omngeni lwegumbi lokulundela. Ngubani
omnye loo nto?



7. Emveni kokuba utitshala ephumile
omnye waba bantwana ukhuphe amaphepha
utitshala wawalahla phantsi. Ngowuphi
abantwana owenze loo nto?



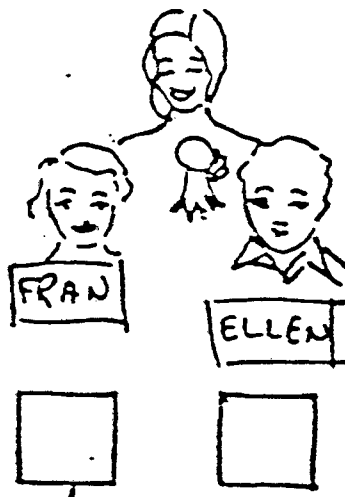
8. Enye uala makhwenkwe iphumelela
debe kuba iyeyona mbaleki iphambili
klasini. Ngeyiphi inkwenkwe ephumelela
debe?



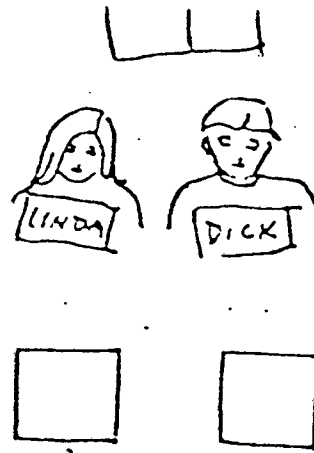
9. Omnye waba bantwana akana bahlobo
oboko eyedwa. Ngowuphi umntwana
owenaba hlobo?



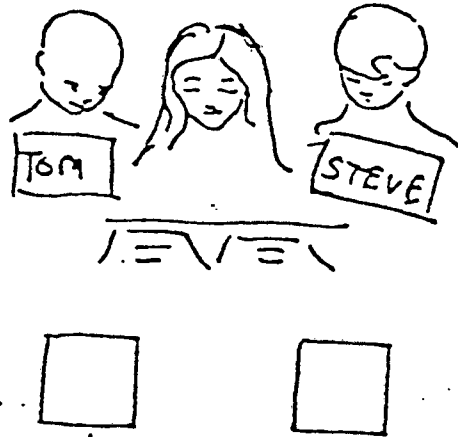
10. Le klasi isandula ukuphumelela.
omnye waba bantwana wonyulwe ukuba aye
kanda indebe. Ngowuphi umntwana
owayilwe yiklasi?



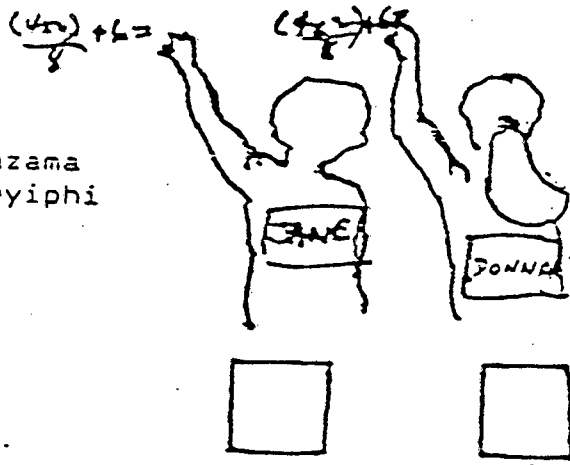
2. Omnye waba bantwana wayegeze. Omnye bantwana waxelelwa ukuba ase lo mntwana ezayo kutitshala umkhulu. Ngowuphi bantwana owayegeza?



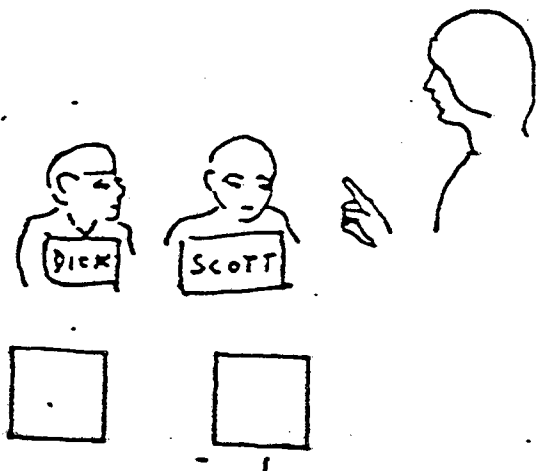
3. La makhwenkwe mobini anependulo ifanayo eluviweni. Omnye ukupe komnye. Yeyiphi inkwenkwe ekopileyo. Ngowuphi?



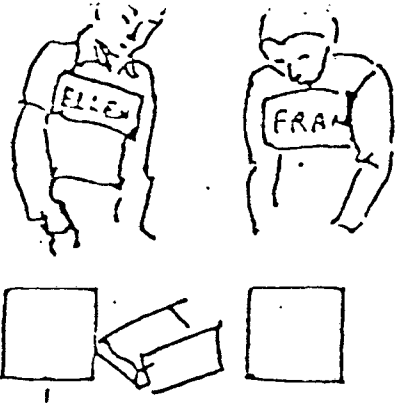
4. Omabini la mantombazana aza kuzama kusombulula ingxaki yezibalo. Ngeyiphi aza kuyisombulula?



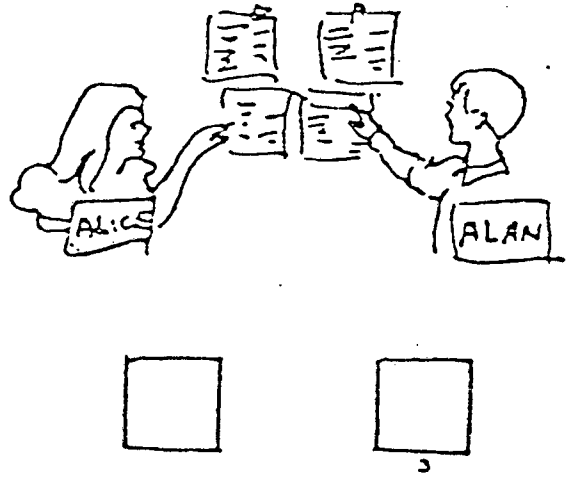
5. Enye yala makhwenkwe ibigeza kutitshala uthi uza kuyohlwaya ukuba kuyiguquki. Yeyiphi inkwenkwe ibigeza?



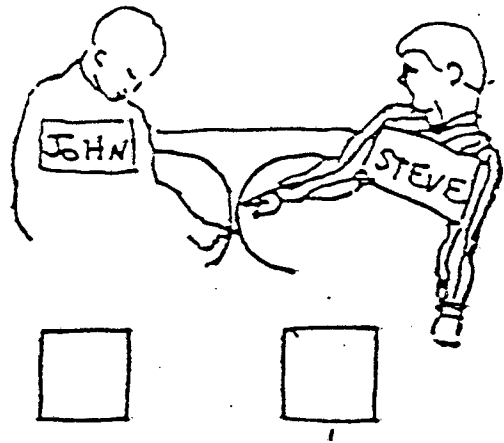
45. Enye yala mantombazana ilahle iincwadi zenye intombazane phantsi. Ngeyiphi elahle iincwadi phantsi?



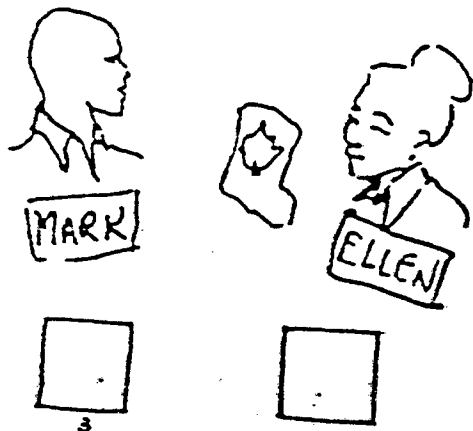
46. Omnye waba bantwana usoloko efumana ziphumo ezintle utitshala uzebekela ludongeni imviwo zakhe uxubonisa klasini. Ngowuphi umntwana ofumana ziphumo ezintle?



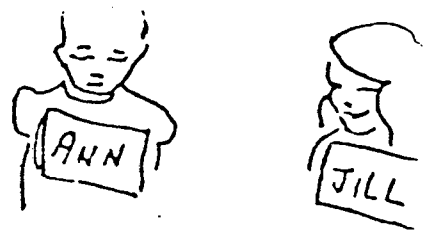
47. La makhwenkwe mabini ajonge imephu enyanga. Omnye ubalaseleyo kwizifundo obu chwephetshe (science) eklasini. Ngowuphi?



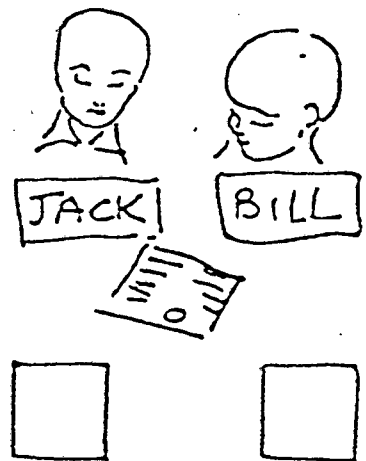
48. Omnye waba bantwana usoloko enyulwa abanye abantwana ukuba afundise xa itshala ehamba. Ngowuphi?



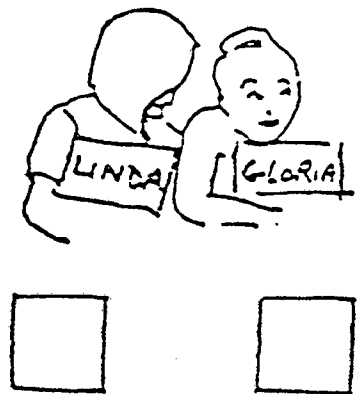
- 49. Utitshala ushiye imali phezulu kwetatile. Omnye waba bantwana uzinga ukuyithatha imali ayigcine. Ngowuphi umntwana ongayithata imali?



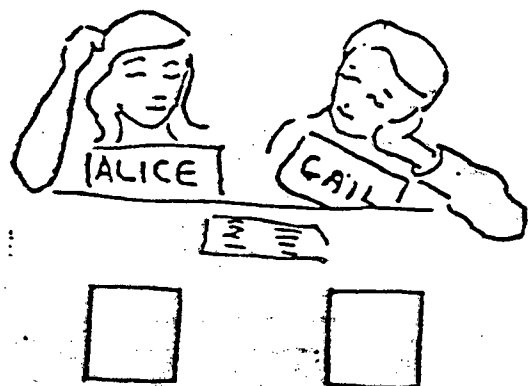
- 50. Enye yala makhwenkwe ayiqhubi kakuhle esikolweni. Akazifumananga zonke iimpendulo eluviweni. Ngeyiphi loo nkwenkwe?



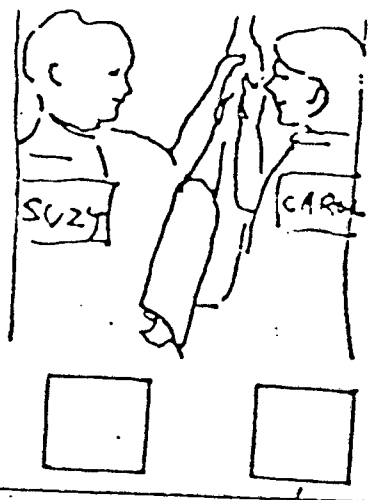
- 51. Omnye wala mantombazana usile uthyunduza enye intombanzana ukuba mayisuke esitulweni. Ngeyiphi intombazana esileyo?



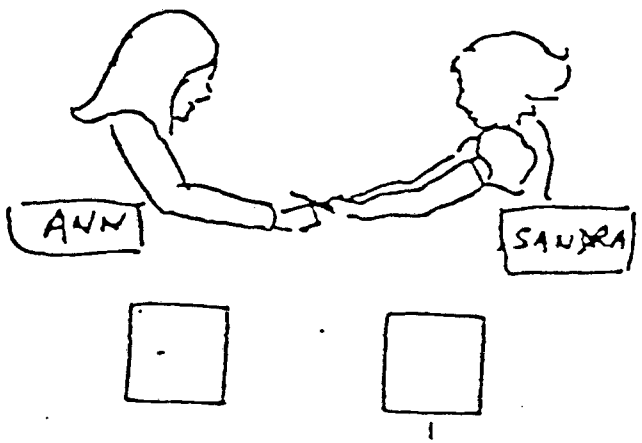
* 52. Omnye woba bantwana uyase benza kwaye ufumana 100% eluviweni. Ngowuphi loo mntwana?



3. La mantombazana azama ukuthatha dyasi enye. Ngeyomnye wabo. gengakabani le dyasi?



4. Omabini la mantombazana atsalana e "puzzle". Le "puzzle" yeyenye yala intombazana enye ifuna ukuyithatha. eyiphi intombazana ezama ukuthatha puzzle"?



5. Omnye waba bantwana uyaziwa kwaye abahlobo abaninzi ngowuphi umntwana?

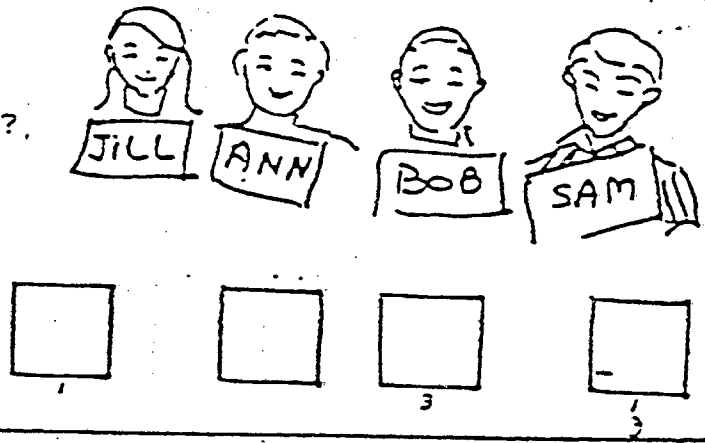


Table C
Katz-Zalk

Meningsopname-vraelys

NAAM _____

SKOOL _____

STANDERD (KLAS) _____

OUDERDOM _____

(sirkel een) SEUN MEISIE

DATUM _____

WAT IS JOU VADER SE BEROEP? _____

WAT IS JOU MA SE BEROEP? _____

=====

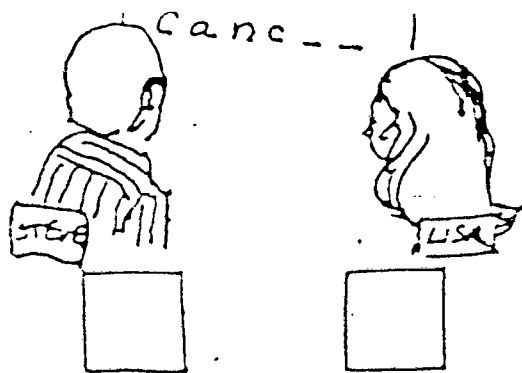
EKSAMINATOR: _____

N _____

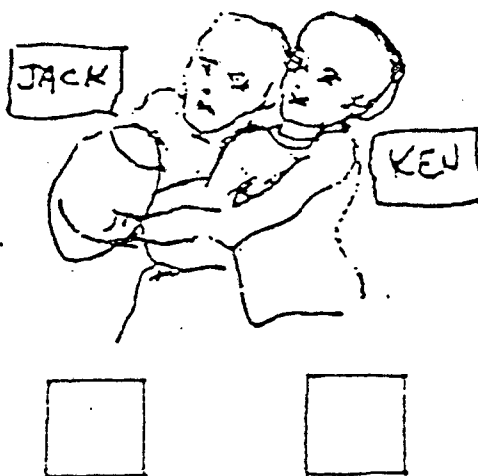
P _____

T _____

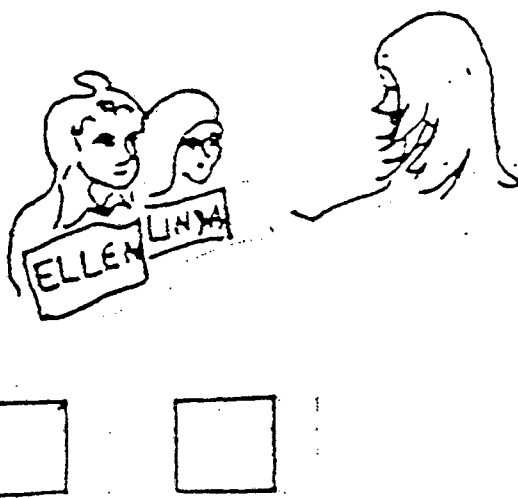
1. Hierdie twee kinders is betrokke by 'n spelwedstryd. Watter een spel beter?



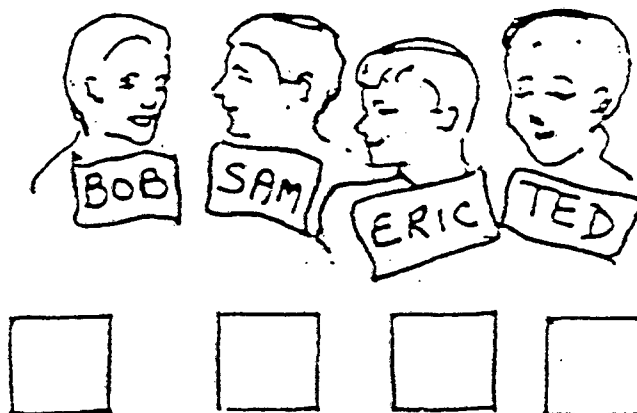
2. Albei hierdie seuns het die voetbal terselfdertyd gevang, maar net een van hulle sal die voetbalspan haal. Watter een sal dit wees?



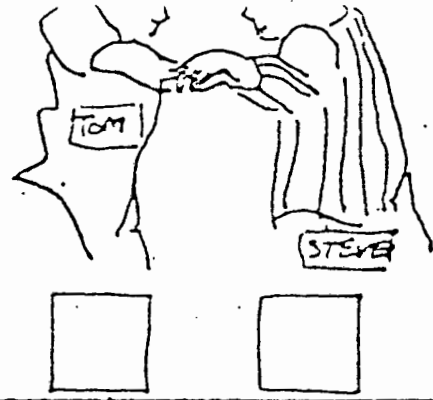
3. Die onderwyser is baie kwaad met een van hierdie meisies omdat sy die hele week al stout was. Met wie is die onderwyser kwaad?



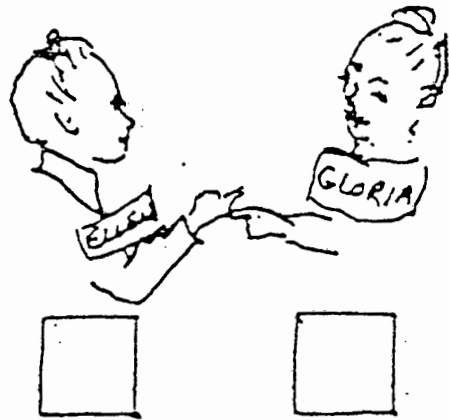
4. Een van hierdie seuns word altyd almal van hom hou omdat hy almal van hom hou. Watter een is die seun van wie almal hou.



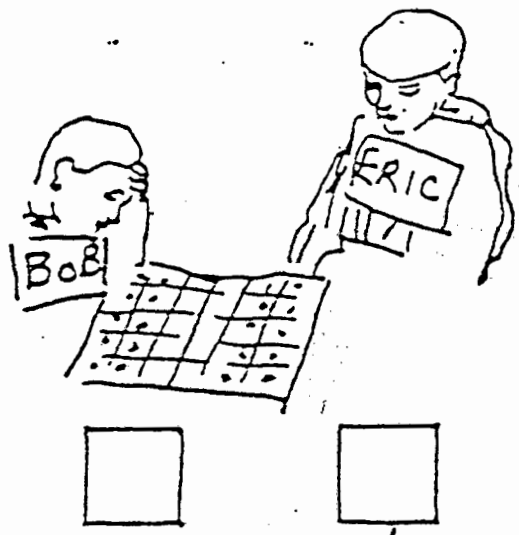
5. Steve en Tom is besig om te
baklei. Een van hulle is 'n
bullebak. Watter een is die
bullebak.



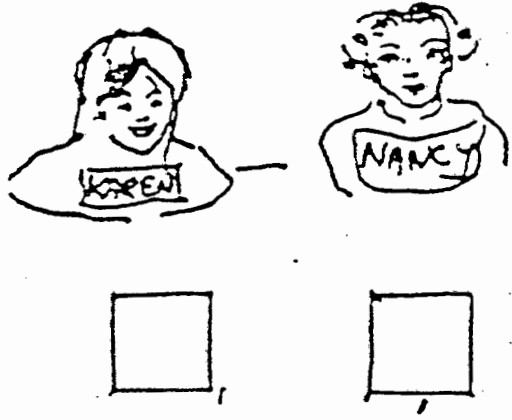
6. Hierdie twee meisies
argumenteer. Een van hulle is altyd
onangenaam en skreeu altyd met
ense. Watter een is onangenaam?



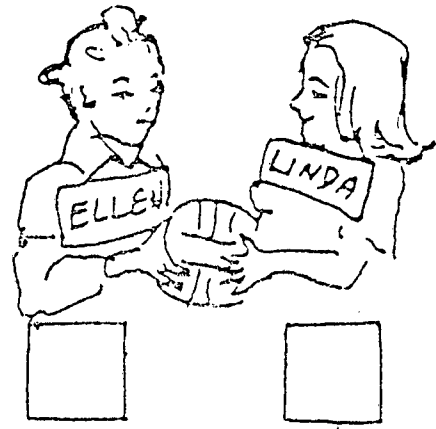
7. Hierdie seuns speel skaak. Wie
is die beter skaakspeler?



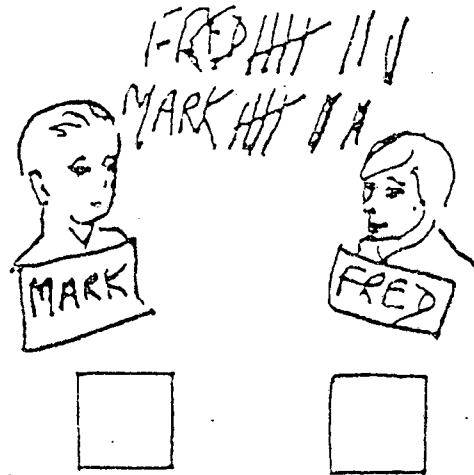
8. Een van hierdie kinders vind dit
seiliek om te leer en verstaan nooit
die lesse nie. Watter een is dit?



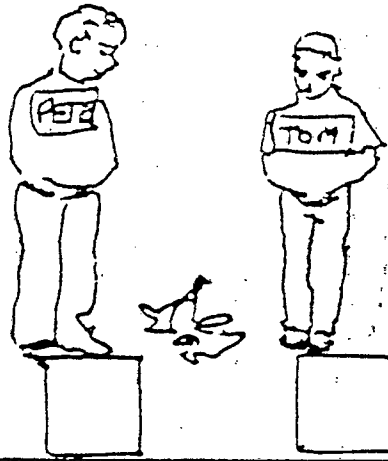
9. Een van hierdie meisies sal 'n medalje kry omdat sy die beste speler in die volleybalspan is. Watter dogter sal die medalje kry?



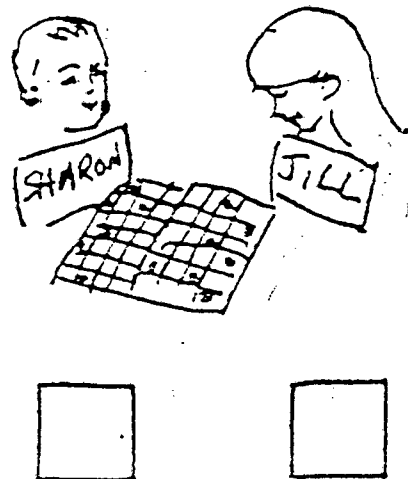
10. Hierdie twee seuns is kandidate vir klaspresident. Watter een sal wen?



11. Een van hierdie seuns het sy vullis op die grond gegooi in plaas van om dit in die vullisblik te gooi. Hy sal wegstap en dit daar los. Wie het die vullis op die grond gegooi?



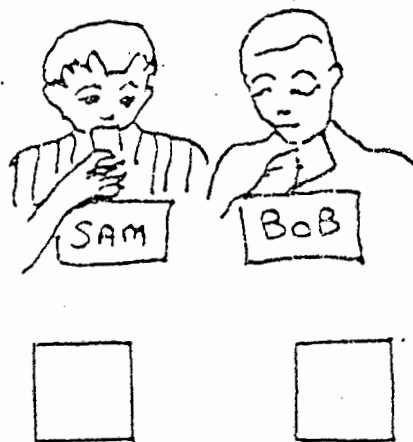
12. Sharon en Jill het albei ses stukke oor. Watter kind sal die dambordspel wen?



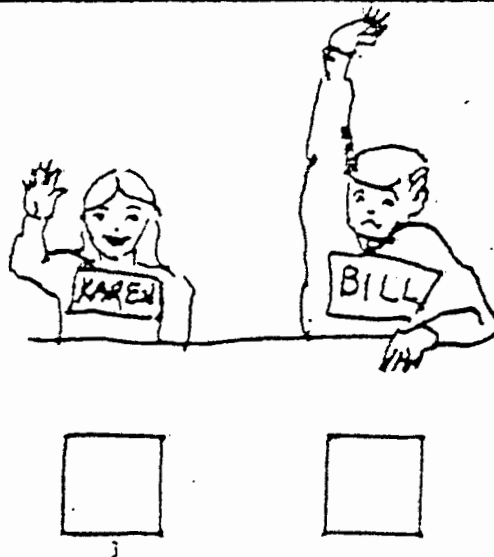
13. Hierdie twee meisies staan op die punt om 'n eenbeentjie-spel ("hopscotch") te speel. Watter een sal wen?



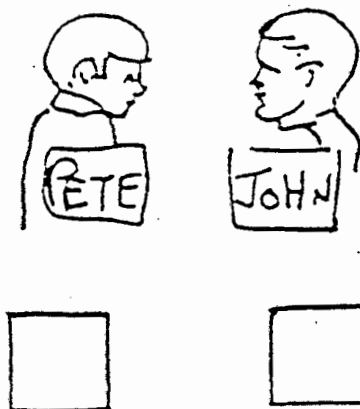
14. Hierdie twee seuns is besig om lekkers te eet. Een van hulle het syne van die ander een gesteel. Watter seun het die lekkers gesteel?



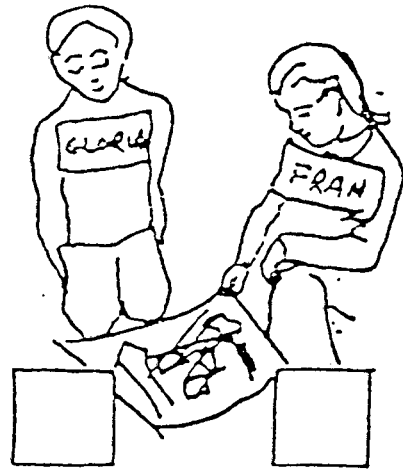
15. Een van hierdie kinders beantwoord altyd die onderwyser se vrae verkeerd en weet nooit die regte antwoorde nie. Watter een beantwoord die vrae altyd verkeerd?



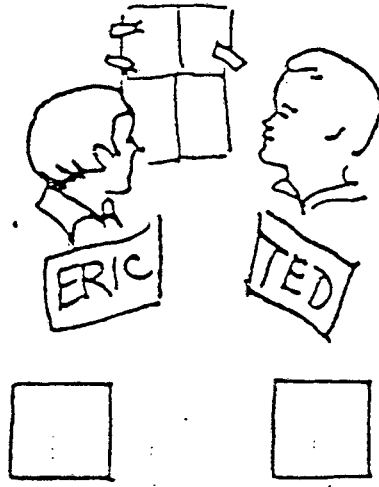
16. Hierdie twee seuns is besig om oor iets wat dwaas is. Een van hierdie seuns begin altyd 'n argument met iemand. Watter een begin altyd argumente?



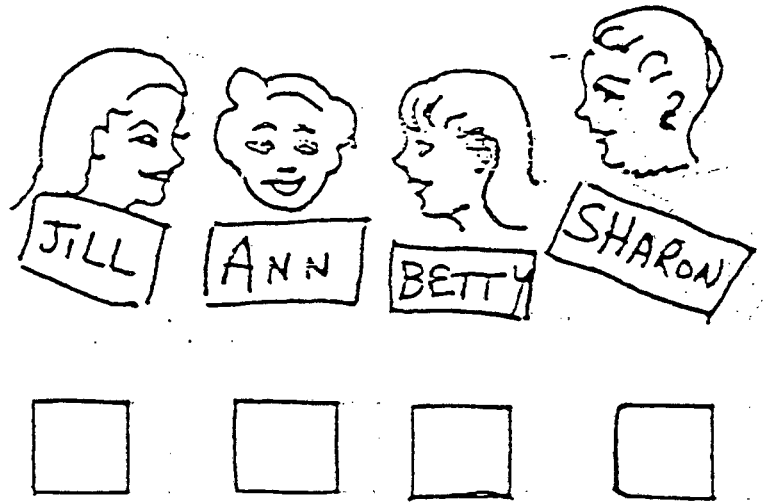
7. Een van hierdie meisies het op die ander meisie se tekening gekrap. Wie het gekrap?



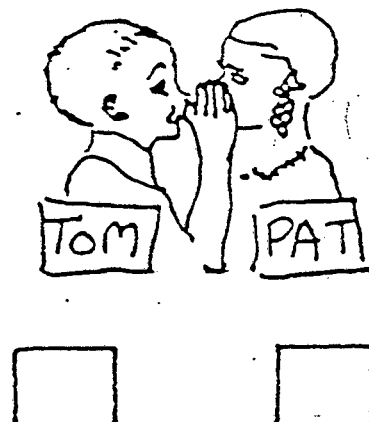
8. Een van hierdie seuns het 'n baksteen na die klaskamervenster gegooi en dit gebreek. Wie het dit gedoen.



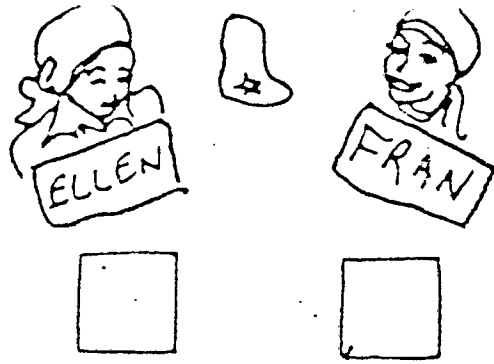
9. Al hierdie meisies hou altyd daarvan om met een van hierdie meisies te speel omdat sy so gaaf is. Met watter meisie speel almal saam?



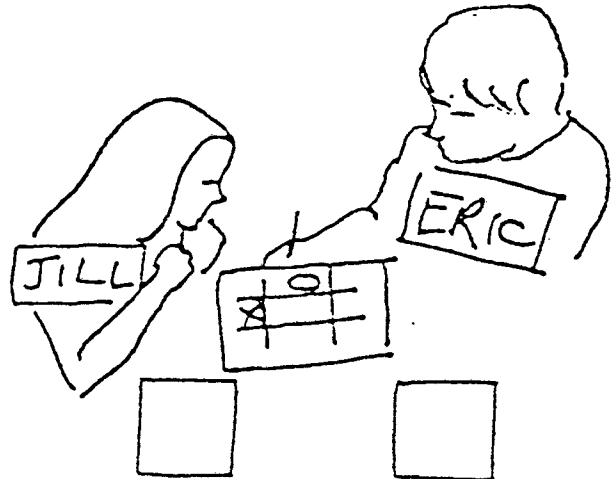
10. Een van hierdie kinders vertel altyd leuens oor vriende wanneer hulle nie daar is nie. Watter een maak so?



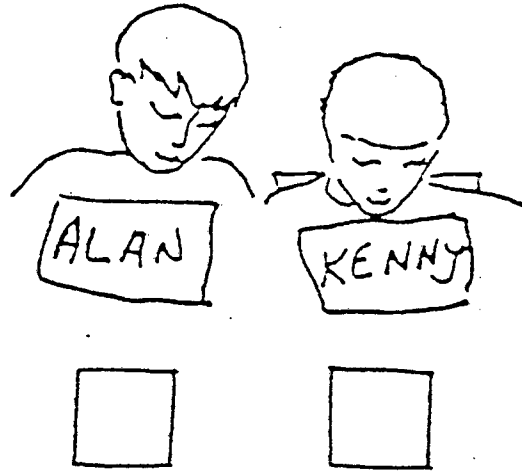
21. Hierdie twee meisies probeer om dieselfde rol in 'n teaterstuk te kry. Watter een sal dit kry?



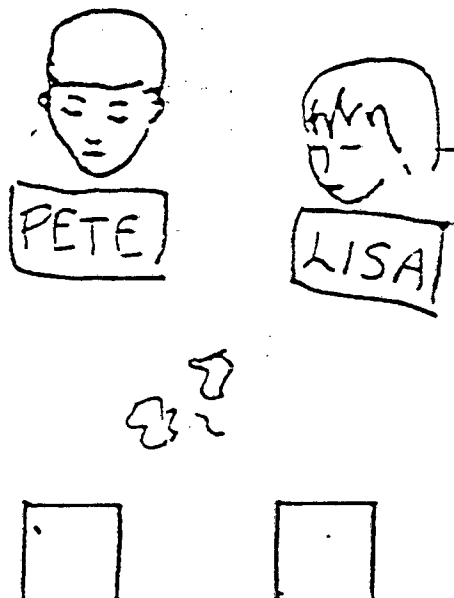
22. Hierdie twee kinders is besig om tik-tak-tol te speel. Watter een sal wen?



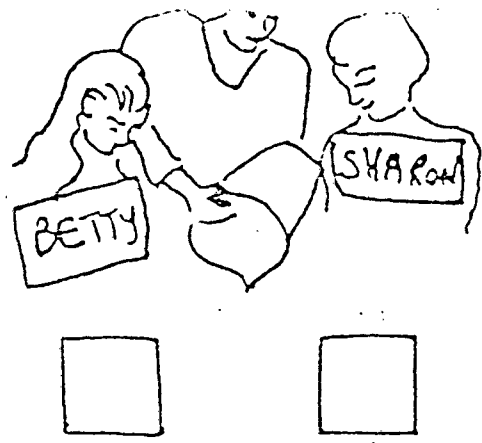
23. Een van hierdie seuns kry altyd sy lesse eerste klaar en het altyd die regte antwoord. Watter een?



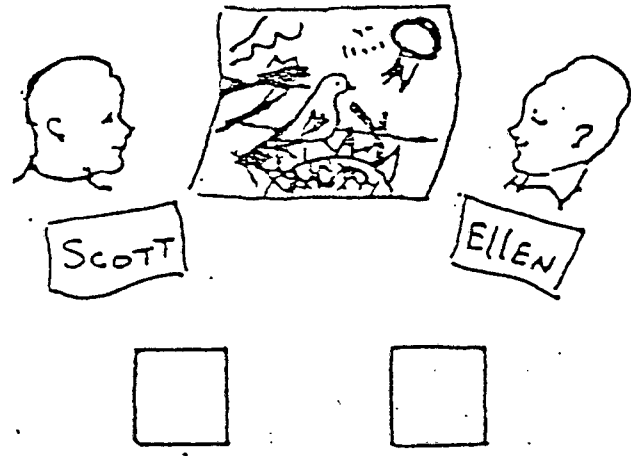
24. Een van hierdie kinders het verf oor die hele vloer gemors en dit daar gelos. Watter een?



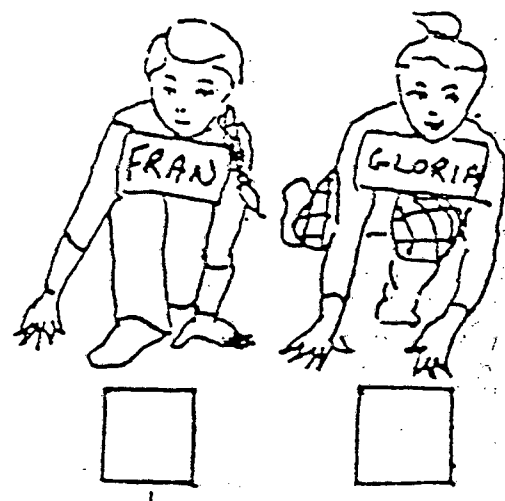
5. Een van hierdie meisies het met
 vuurhoutjies gespeel en 'n vuur in
 die vullisblik begin. Die
 onderwyser is besig om water oor
 die vuur te gooi om dit dood te
 maak. Watter meisie het die vuur
 begin?



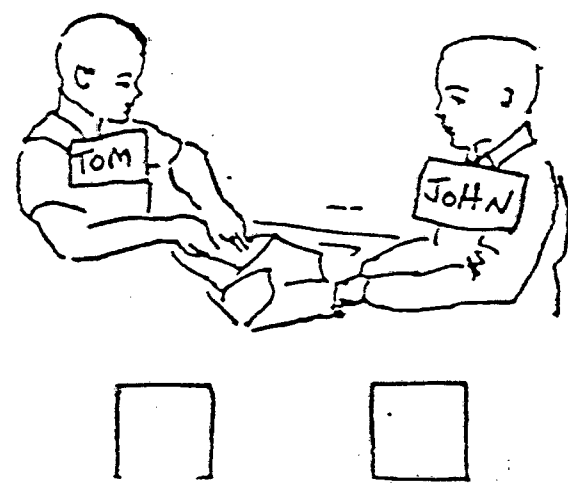
6. Hierdie prent het die eerste
 rys in 'n kunswedstryd gewen.
 Watter kind het dit geteken?



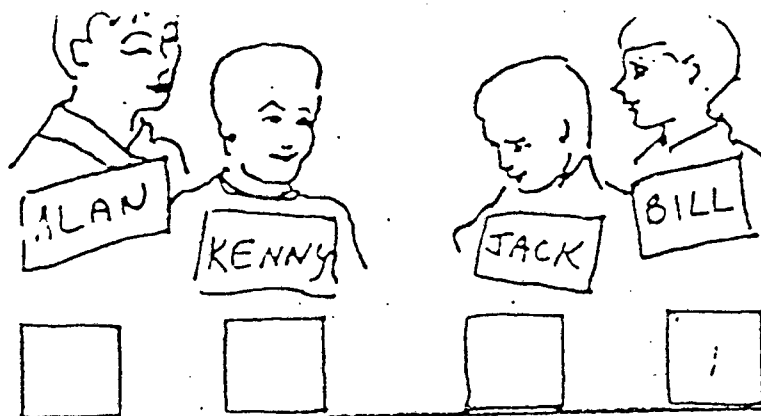
7. Hierdie twee meisies kan albei
 baie hardloop. Hulle gaan resies
 en mekaar jaag. Watter een sal
 wen?



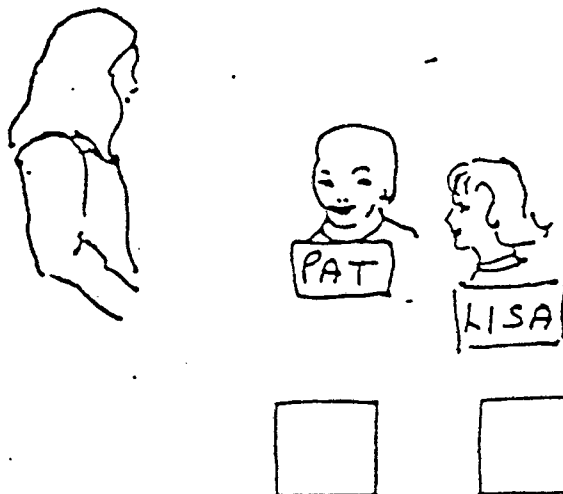
8. Een van hierdie seuns het kwaad
 gemaak en die ander seun se hemp
 afgetrek. Watter seun het die hemp
 afgetrek?



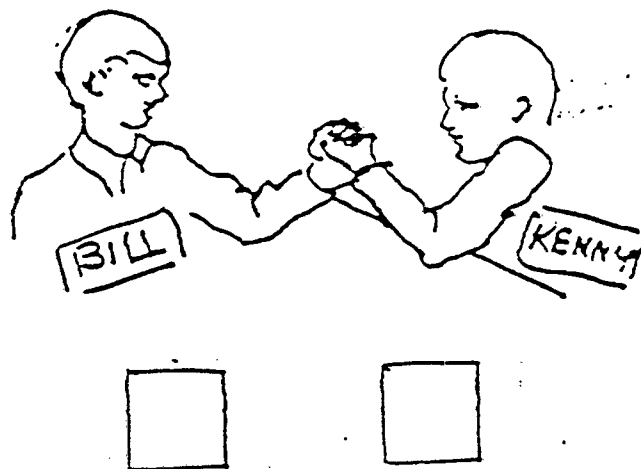
30. 'n Seun in die klas hou 'n prytjie. Hy hou nie van een van die seuns nie en sal hom nie nooi. Watter seun sal nie na die prytjie genooi word nie?



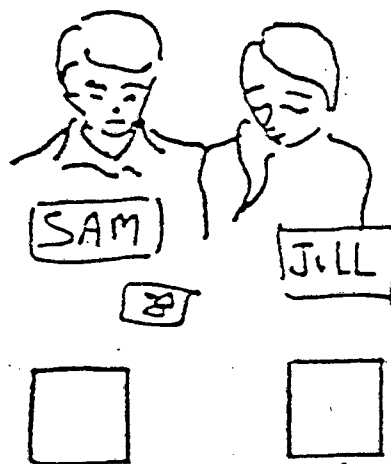
31. Die onderwyser vra albei kinders oor wat in die kafeteria gebeur het. Hulle vertel albei verskillende stories. Sy weet wie te glo omdat een van die kinders tydens leuens vertel. Watter kinders?



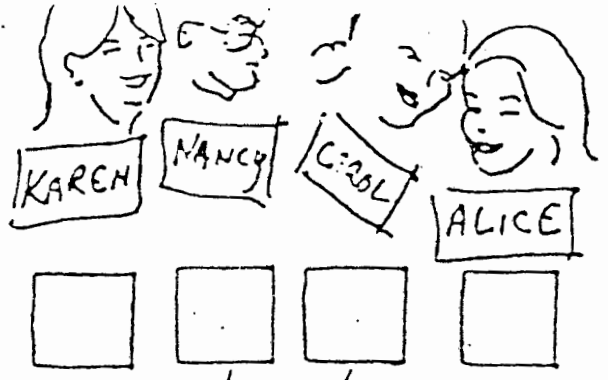
31. Bill en Kenny hou 'n armstoeiwedstryd. Wie sal die wedstryd wen?



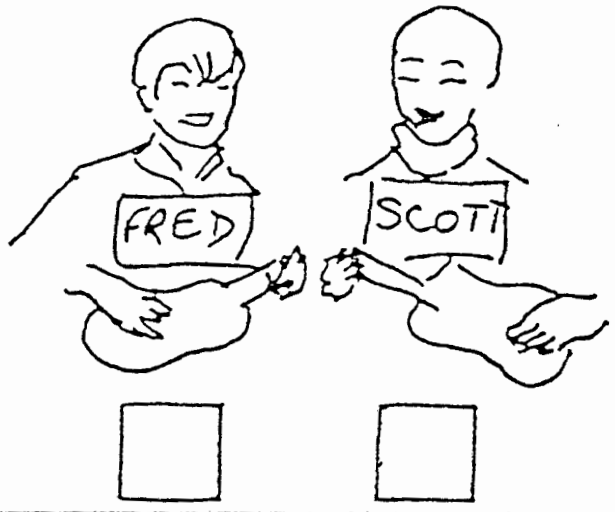
32. Een van hierdie kinders vat altyd dinge wat aan iemand anders behoort en hou dit. Watter kind?



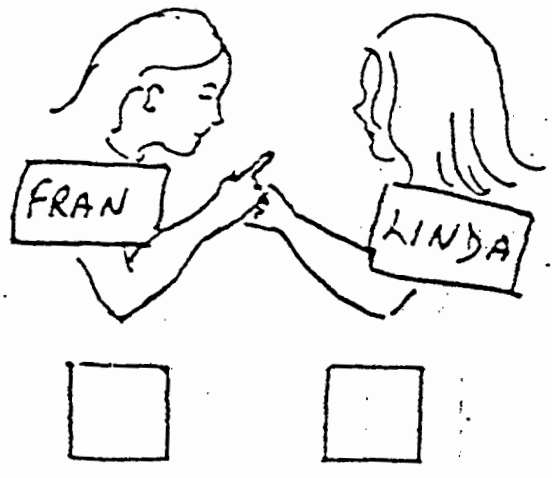
33. Hierdie meisies wag om vir 'n span gekies te word. Niemand hou van een van hierdie meisies en sy sal laaste gekies word. Watter een sal laaste gekies word?



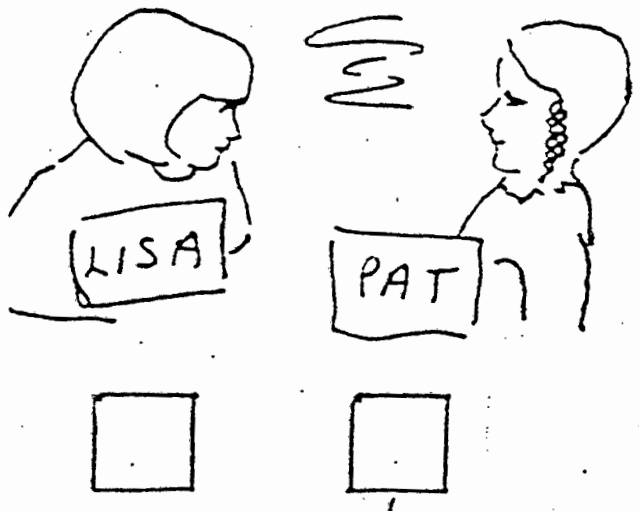
34. Hierdie twee seuns is besig om hul kitare in die skool talentskou te speel. Een van hulle kan die kompetisie wen. Watter een sal wen?



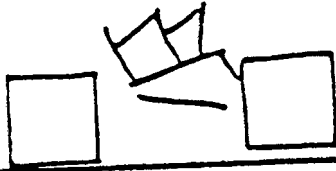
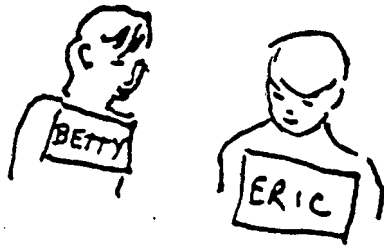
35. Hierdie kinders baklei omdat een van hierdie meisies die ander een se hare getrek het. Wie het dit gedoen?



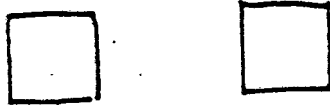
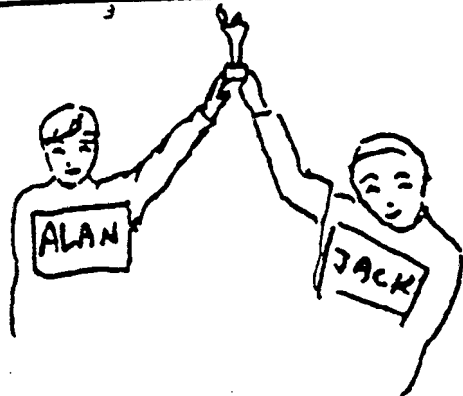
36. Een van hierdie kinders het teen die klaskamer se muur gekrap. Wie was dit?



37. Toe die onderwyser die kamer verlaat het, het een van hierdie kinders al die papiere uit die onderwyser se lessenaar gehaal en dit op die grond gegooi. Watter kind het dit gedoen?



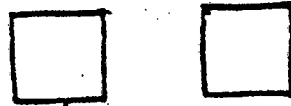
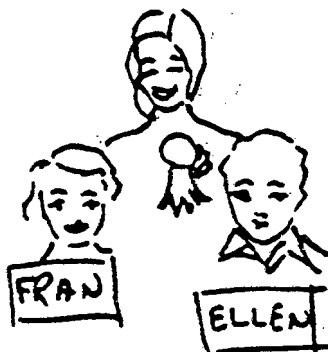
38. Een van hierdie seuns wen 'n trofee omdat hy die beste atleet in die klas is. Watter een sal die trofee te wen?



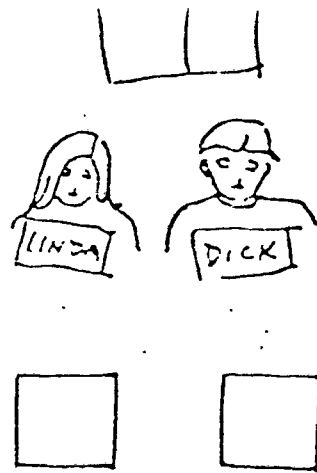
39. Een van hierdie kinders het geen vriende nie en is altyd alleen. Watter een het geen vriende?



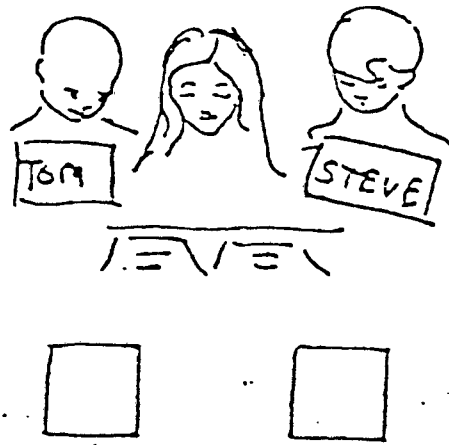
40. Hierdie klas het pas 'n toekenning gewen. Een van hierdie kinders is gekies om die toekenning te ontvang. Watter een het die klas gekies?



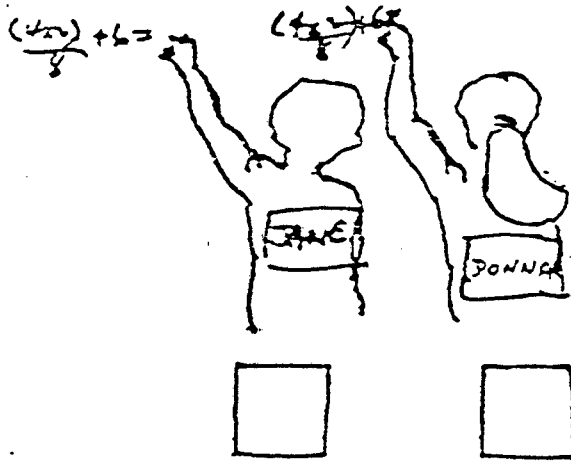
41. Een van hierdie kinders was stout. Die ander kind is gevra om die stout kind na die hoof se kantoor te neem. Watter kind was stout?



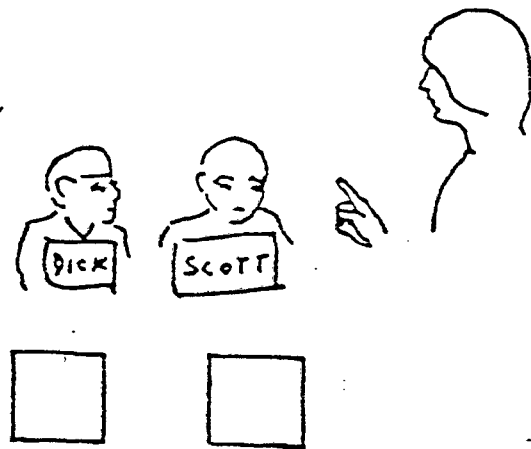
42. Hierdie twee seuns het dieselfde antwoorde in hul toetse gehad. Een het van die ander gekul. Watter seun het gekul?



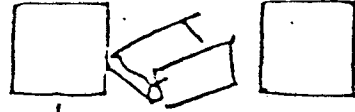
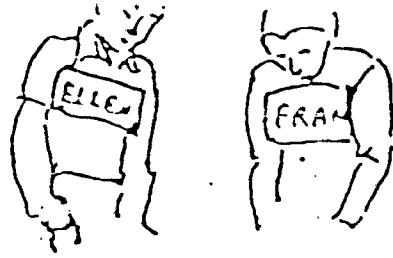
43. Albei hierdie meisies sal probeer om hierdie wiskunde probleem te doen. Watter een sal dit oplos.



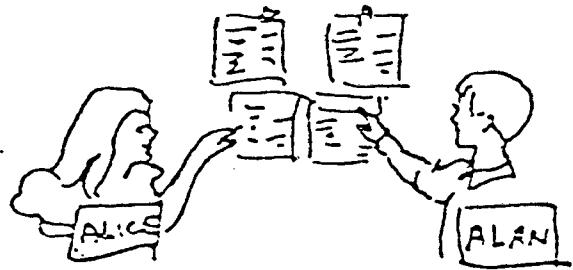
44. Een van hierdie seuns was stout. Die onderwyser is besig om te se dat sy hom sal straf indien hy nie verander nie. Watter seun was stout?



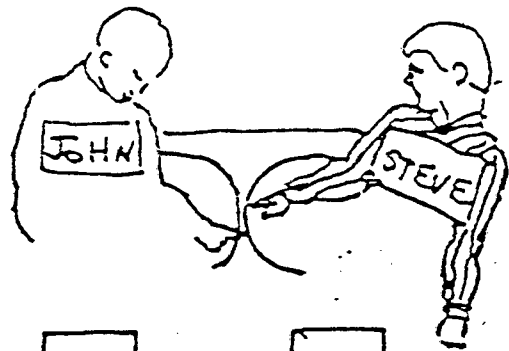
45. Een van hierdie meisies het die ander meisie se boeke op die grond gegooi. Watter een het die boeke neergegooi?



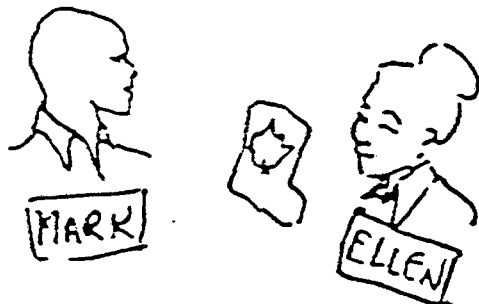
46. Een van hierdie kinders kry altyd goeie punte. Die onderwyser het daardie kind se punte op die bord geskryf om dit vir die klas te wys. Watter kind het goeie punte gekry?



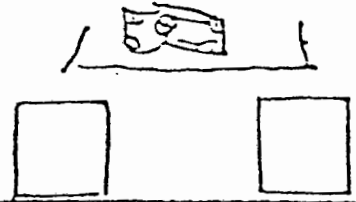
47. Hierdie twee seuns kyk na kaarte van die maan. Een van hierdie kinders is die beste in sy klas in wetenskap. Watter een?



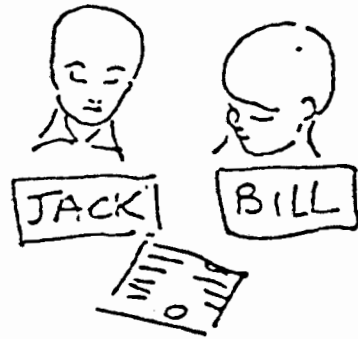
48. Een van hierdie kinders word altyd deur die ander kinders gekies om oor te neem wanneer die onderwyser die kamer verlaat. Watter een?



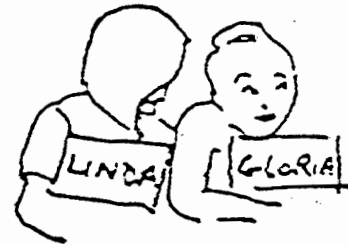
- 49. Die onderwyseres het hierdie geld op haar lessenaar laat lê. Een van hierdie kinders dink daaraan om die geld te vat en dit te hou. Watter een mag dalk die geld neem?



- 50. Een van hierdie seuns doen nooit goed op skool nie. Hy het al die antwoorde in die toets verkeerd gekry. Watter een?



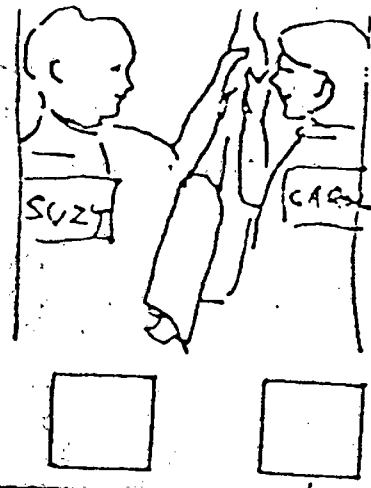
- 51. Een van hierdie meisies is onangenaam en is besig om die ander meisie uit haar sitplek te stoot net om gemeen te wees. Watter meisie is onangenaam?



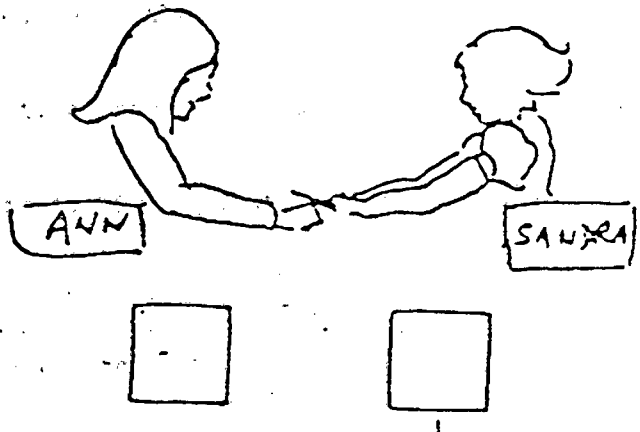
+ 52. Een van hierdie kinders is baie slim en het 100% vir 'n toets gekry. Watter kind?



53. Hierdie meisies probeer om dieselfde oorjas te neem. Dit behoort aan een van hulle. Aan watter meisie behoort die oorjas?



54. Albei hierdie meisies trek aan 'n legkaart. Die legkaart behoort aan een van die meisies en die ander probeer om dit van haar weg te neem. Watter meisie probeer om die legkaart weg te neem?



55. Een van hierdie kinders is baie gewild en het baie vriende. Watter kind?

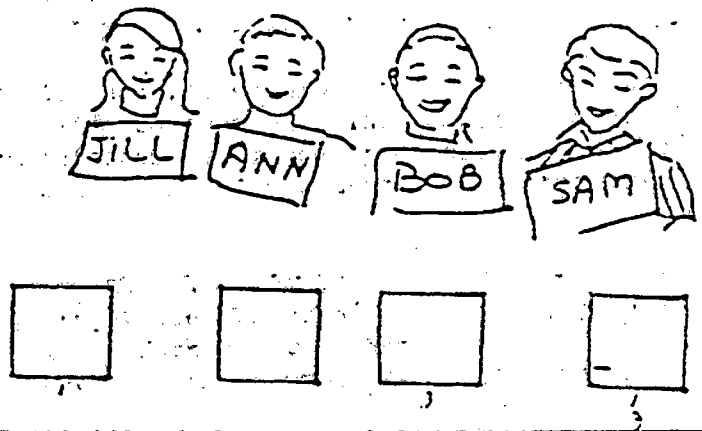


Table D Cont.

Aanwysings vir toedieners van alle grade

Albei toetsers gee die toets uit. Sê vir die leerlinge hulle moenie die toets oopmaak voor jy so se nie.

Se: "Hallo, my naam is Vandag sal ons graag wil uitvind wat kinders van verskillende ouderdomme oor verskeie dinge dink. Ons sal vir julle 'n paar skyfies van ander kinders wys and 'n paar vrae aan jou rig. "

(BEKLEEMTOON) "Hierdie is NIE 'n toets nie. Daar is geen regte of verkeerde antwoorde nie. Ons stel net belang in wat jou mening oor hierdie prentjies is. Nóg jou onderwyser nóg jou skool kry die uitslae van hierdie vraestel nie - ons wil net weet watter dinge jou help om 'n opinie te vorm. En omdat dit jou opinie is wat ons wil hê, moenie na iemand anders se blad kyk nie. "

"Is jy klaar? Goed. Kom ons blaai die eerste blad om en ons probeer die eerste item. " (Wys die skyfie)

"Dit is Steve (wys na hom op die skyfie) en dit is Lisa (wys na haar)" (Lees die vraag) ..

"Kyk in jou boek. Jy sal sien: langs die vraag is daar 'n prentjie wat net soos hierdie een lyk, ne (wys na die skyfie), en onder elke kind se prentjie is daar 'n raampie. Sit 'n "X" in die raampie onder die kind wat jy dink beter kan spel. Goed."

"Voor ons met die volgende vraag voortgaan, is daar 'n paar punte wat ek graag wil noem omdat dit julle sal help. Eerstens: sommige van die jonger kinders het sekere merke onder die raampies raakgesien en gedink dis belangrik. Maar onthou: hierdie is 'n meningsopname. Dus is daar geen regte of verkeerde antwoorde nie en daardie merkies het hoegenaamd geen betekenis nie. Ons gebruik dit maar net as verwysing om sekere van die vrae maklik te kan vind, maar jy kan dit ignoreer. "

"Die ander punt wat ek voel is belangrik, is dat jy nie moet voortgaan en al die vrae beantwoord nie. Wag liever eers totdat die skyfie gewys word. Die skets in die vraestel gee nie genoeg inligting vir jou om 'n opinie te vorm nie. Dit is net daar om jou met die vraag te help. Voor jy besluit, moet jy na die skyfie kyk. Reg? Goed, kom ons gaan aan met die volgende skyfie"

Die toediener moet begin deur die name van die kinders wat op die skyfie verskyn, te noem. Daarna moet hy/sy die vraag

self lees. Nadat die vraag gelees is, herhaal die kinders se name. Hulle moenie in die vorm van 'n vraag genoem word nie d.w.s NIE Mark of Tom? nie, maar wel Mark/Tom. Deur name in die vorm van 'n vraag te herhaal, word die kinders aangemoedig om "antwoorde" uit te roep, en dit moet vermy word.

Wanneer daar vier kinders op die skyfie verksyn, sê vir hulle hulle moet net EEN merk.

Wanneer u dit nodig ag, kan die volgende herhaal word :
"plaas 'n X in die raampie onder die kind wat jy dink
....."

Indien die kinders rusteloos is, herinner hulle om nie na iemand anders se vraestel te kyk nie - dat dit hulle opinie is wat ons soek.

Die pas moet volgehou word! Onthou om die nommer van die vraag te noem wanneer jy omblaai, sowel as die nommer van die nuwe bladsy. Probeer om die kinders betrokke te kry.

Table D Cont.

KATZ - ZALK

IMIBUZWANA NGOLUVO LWAKHO

Abavavanyi bobabini banikezele uviwo. Xelela abafundi bangavuli maphepha oviwo de ubaxelele oko.

Bulisa utthi molweni, igama lam ndingul..... (uzalise) Namhlanje sithanda ukufumana uluvo lwabantwana ababudala bushiyanayo ngezinto ezithile ezahlukeneyo. Sizakunibonisa imifanekiso yabanye abantwana size sinibuze imizo ngabo.

GXININISA

Ukuba ayilo viwo olu. Kwaye akukho mpendulo zilungileyo okanye zingalunganga. Into esiyifunayo luluvo lwakho mntwana ngalemifanekiso. Abafundisi-ntsepho okanye izikolo zenu azisayi kufumana ziphumo zenu ngoluviwo, sifuna ukwazi ukuba zizinto ezinjani ezinenza nakhe uluvo. Kuba sifuna uluvo lomntu ngamnye, ungajongi kwiphepha lomnye.

~~Fhambi kokuba sinibonise imifanekiso sithanda ukuba nigcwalise eliphethana lokuqala (abancinane ubancedise abadala bazanzele)~~

(Ecaleni kwegama elithi EXAMINER ekupheleni kwephepha ubhale igama lam..... (libhale ebhodini))

"Nigqibile? Kulungile ngoku masityile kwiphepha lokuqala sizame umbuzo wokuqala (bonisa islide)"

Lo ngu Steve (umkhombe kwislide) lo ngu Lisa (umkhombe naye) (ubafundele umbuzo)

Niyabona, kuloncwadana, ecaleni kombuzo apho kuloo maphepha enu, kukho umfanekiso ofana nalo ulagha kwislide. (ubonise kwislide) Kwaye ngaphantsi kwaye wonke umntwana kukho ibhokisana. Beka u "X" kwibhokisana phantsi komntwana ocinga ukuba upela ngcono. Ngoku kulungile.

Fambi kokuba siye kombuzo olandelayo, kukho amanqaku ukaba angaluncedo. Kuqala, abanye bababantwana bancinane baqaphele ukuba ezinye bezibhokisana zinemitshitho phantsi kwazo kwaye bacinga ukuba kubalulekile oko. Kuba iluvavanyonje loluvo olu, akukho mpendulo ilungileyo okanye ingalunganga, kwaye laa mitshitho ayinasizathu. Siyisebenzisa ekuqwalaseleni eminye imibuzo, kodwa ungayinaki loomitshitho.

Elinye inqaku ocinga ukuba libalulekile kukuba ungaphenduli imibuzo yonke ngaxeshanye ungajonganga islide ngasinye kuqala ndawonye nombuzo lowo. Uzobo lo ukwincwadana yeibuzwana awukuniki nkcazelo yanelayo enokukunceda wakhe uluvo. Uyakuncedisa nje ekuphenduleni imibuzwana. Ukwakha

uluvo kufuneka ujonge islide. Masambeni ke siye kwislide esilandelayo.

Umvavanyikufuneka eqale ngokubiza amagama abantwana abakwislide eso andule ukufunda umbuzo. Emva kombuzo, phinda amagama abantwana, kodwa ungawaphindi amagama njengoko ekumbuzo (umzekelo ungathi uMark no Tom koko Mark-Tom) kuba uyakube uyabantluvisa ngokwentenjalo kwaye oko kufuneka kuthintelwe ngazo zonke iindlela.

Ukuba kukho abantwana abane kwislide baxelel bagcine abe mnye..

Ukuba kuyimfuneko, phinda u "beka u "X" kwibhokisi ephantsi komntwana ocinga....."

Ukuba ngaba basenophuku bakhumbuze bangajongi iphepha lomnye umntwana kuba luluvo lwabo esilufunayo.

Gcina inkqubala ngalo lonke ixesha. Khumbula inombolo yombuzo ngamnye, nexesha lokuguqula iphepha, kunye nanombolo yalo. Zama ukubafaka ehlombeni ngalo lonke ixesha abantwana.

Table E

The scoring for the attitude questionnaire is rather simple: each of the 38 race related questions is scored either "1" or "0". The child receives one point for attributing a negative trait or action to an other-race child, or for attributing a positive trait or action to a same-race child. The negative items (notated by a "-" next to the question number) are questions 3, 5, 8, 11, 14, 16, 17, 18, 25, 29, 30, 33, 36, 42, 44, 45, 49, 50, 51, 53, and 54. The positive items (notated by a "+" before the question number) are questions 4, 7, 9, 10, 12, 19, 21, 23, 27, 31, 34, 38, 40, 43, 47, 52, and 55.

Those questions not listed above are buffer items and should not be scored (NOTE: The "MF" which precedes some of the question numbers indicates that they are male-female buffer items).

As you can see, there are boxes underneath each sketch. To facilitate scoring, we have placed a small "1" under the box which would be a score of one for a white child. Thus, if a white child marks the box with a "1" under it, he/she receives one point for that item. Similarly, if a white child marks the other box, he/she receives a zero for that item. The reverse holds for black children: They receive a score of zero if they mark the box with a "1" under it and a score of one if they mark the other box. Questions with four children in the picture are scored the same way, only on these items there are two responses which can receive a one and two which can receive a zero. (NOTE: Some of the questions have small "3's" under the boxes. These refer to sex choices and are not relevant to racial attitude scores).

As there are a total of 38 race items, a child's total attitude score can range from 0 to 38, with 38 indicating the highest prejudice score. In addition to the total attitude score, we often view the negative items ("Prejudice" subtest score) and the positive items

("Pride" subtest score) separately to see if changes in scores are a function of the emphasis of these two different kinds of items.

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black) * * *
 0= female 1= male

1	6.08	1	1	15	12	27			
1	6.25	1	1	10	12	22			
1	6.08	1	1	10	8	18			
1	6.16	1	1	7	9	16			
1	6.00	1	1	9	11	20			
1	6.16	1	1	13	11	24			
0	6.16	1	1	14	14	28			
0	6.08	1	1	12	13	25			
0	6.08	1	1	14	12	26			
0	6.00	1	1	12	15	27			
1	6.92	1	1	8	11	19			
1	7.00	1	2	11	11	22			
1	7.08	1	2	10	11	21			
1	7.00	1	1	9	12	21			
1	7.08	1	1	13	10	23			
0	6.83	1	2	18	17	35			
0	7.25	1	2	14	8	22			
0	7.16	1	2	14	6	20			
0	7.08	1	2	11	8	19			
0	7.16	1	2	5	3	8			
0	9.00	1	4	7	8	15			
0	9.00	1	4	12	12	24			
0	9.08	1	3	9	11	20			
0	9.00	1	4	7	11	16			
0	9.25	1	4	5	10	15			
1	9.50	1	4	13	7	20			
1	9.00	1	4	10	11	21			
1	9.67	1	4	11	10	21			
1	8.92	1	3	15	10	25			
1	8.67	1	3	9	10	19			
1	10.16	1	5	6	8	14			
1	10.00	1	4	17	14	31			
1	10.16	1	5	10	13	23			
1	10.08	1	5	10	5	15			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black) * * *
 0= female 1= male

1	10.08	1	4	12	9	21			
0	10.83	1	5	12	10	22			
0	10.42	1	5	4	10	14			
0	10.83	1	6	6	9	15			
0	10.16	1	5	7	11	18			
0	9.75	1	4	6	9	15			
0	10.08	1	5	12	10	22			
0	10.92	1	5	9	6	15			
0	11.25	1	6	3	4	7			
0	10.92	1	6	9	3	11			
0	11.08	1	5	9	9	18			
0	10.92	1	5	13	13	26			
1	11.33	1	6	8	11	19			
1	10.92	1	5	6	7	13			
1	11.50	1	6	5	9	14			
1	11.00	1	6	7	8	15			
1	11.25	1	6	6	7	13			
1	11.58	1	6	6	5	11			
1	11.25	1	6	4	8	11			
0	6.12	1	1	12	11	23			
0	6.00	1	1	17	13	30			
0	6.58	1	1	8	13	21			
0	6.57	1	1	11	12	23			
0	6.08	1	1	10	11	21			
1	6.65	1	1	9	10	19			
1	6.58	1	1	11	17	29			
1	6.61	1	1	6	7	13			
1	6.06	1	0	10	9	19			
1	6.62	1	1	11	16	27			
0	7.78	1	2	8	13	21			
0	7.79	1	2	7	14	21			
0	7.24	1	2	12	13	25			
0	7.00	1	1	10	10	20			
0	7.41	1	2	15	14	29			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black)
 0= female 1= male

0	7.46	1	2	10	16	26			
1	7.87	1	2	12	11	23			
1	7.76	1	2	12	11	23			
1	7.44	1	2	11	9	20			
1	7.08	1	2	11	12	23			
1	7.16	1	1	15	8	23			
0	9.10	1	4	11	12	23			
0	9.17	1	4	10	9	19			
0	9.39	1	4	9	10	19			
0	9.30	1	4	9	9	18			
0	9.50	1	4	12	13	25			
0	9.30	1	4	9	10	19			
0	9.51	1	4	9	12	21			
1	9.19	1	4	9	13	22			
1	9.14	1	4	12	10	22			
1	9.00	1	4	7	4	11			
1	9.06	1	3	9	9	18			
1	9.36	1	3	8	11	19			
1	9.05	1	3	7	9	16			
1	9.72	1	4	8	6	14			
0	10.70	1	5	10	10	20			
0	10.47	1	5	9	9	18			
0	10.45	1	5	10	10	20			
0	10.33	1	5	6	5	11			
0	10.04	1	5	8	11	19			
1	10.40	1	5	13	10	23			
1	10.68	1	4	13	10	23			
1	10.00	1	4	9	9	18			
1	10.47	1	5	8	13	21			
1	10.75	1	5	5	9	14			
0	11.41	1	6	12	11	23			
0	11.59	1	6	8	8	16			
0	11.00	1	5	9	7	16			
0	11.54	1	6	6	7	13			

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)							*	*	*
0= female 1= male									
0	11.13	1	6	8	9	17			
0	11.17	1	6	10	12	22			
1	11.58	1	5	13	9	22			
1	11.00	1	5	8	6	14			
1	11.52	1	5	14	12	26			
1	11.49	1	6	10	8	18			
1	11.00	1	5	9	11	20			
1	6.75	1	1	16	12	28			
1	6.33	1	1	17	14	31			
1	6.92	1	1	13	15	28			
1	6.66	1	1	12	11	23			
1	6.75	1	1	16	13	29			
1	6.50	1	1	11	10	21			
1	6.58	1	1	8	4	12			
0	6.75	1	1	8	13	21			
0	6.66	1	1	16	11	27			
0	6.66	1	1	4	1	5			
0	6.75	1	1	13	9	22			
0	6.58	1	1	13	13	26			
0	6.58	1	1	12	13	25			
1	7.84	1	2	5	8	13			
1	7.41	1	2	18	16	34			
1	7.00	1	1	14	15	29			
1	7.25	1	1	13	14	27			
1	7.66	1	2	13	13	26			
1	7.66	1	1	12	13	25			
0	7.50	1	2	7	4	11			
0	7.50	1	2	6	4	10			
0	7.41	1	2	12	14	26			
0	7.00	1	1	15	11	26			
0	7.25	1	1	8	13	21			
1	9.66	1	4	9	6	15			
1	9.50	1	4	14	13	27			
1	9.84	1	4	13	12	25			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black)
 0= female 1= male

1	9.84	1	4	11	11	22			
1	9.41	1	4	13	8	21			
0	9.08	1	3	7	9	16			
0	9.08	1	3	12	15	27			
0	9.41	1	4	18	12	30			
0	9.08	1	3	14	13	27			
0	9.00	1	3	15	13	28			
1	10.58	1	5	13	13	26			
1	10.58	1	5	10	12	22			
1	10.00	1	4	13	11	24			
1	10.25	1	5	5	5	10			
1	10.58	1	5	13	8	21			
0	10.50	1	4	12	9	21			
0	10.25	1	5	12	8	20			
0	10.92	1	5	15	11	26			
0	10.50	1	5	15	15	30			
0	10.58	1	5	11	6	17			
1	11.33	1	6	7	11	18			
1	11.16	1	5	8	10	18			
1	11.58	1	6	5	4	9			
1	11.00	1	5	12	14	26			
1	11.00	1	5	11	9	20			
0	11.50	1	6	10	10	20			
0	11.66	1	6	13	13	26			
0	11.75	1	6	13	11	24			
0	11.33	1	6	7	7	14			
0	11.00	1	5	13	10	23			
1	6.84	1	1	14	10	24			
1	6.50	1	1	17	13	30			
1	6.84	1	1	15	9	24			
1	6.50	1	1	14	9	23			
1	6.25	1	0	15	10	25			
0	6.16	1	0	9	11	20			
0	6.08	1	0	8	8	16			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black) * * *
 0= female 1= male

0	6.66	1	1	20	17	37			
0	6.50	1	1	14	10	24			
0	6.33	1	1	15	16	31			
1	7.84	1	2	11	11	22			
1	7.00	1	1	15	14	29			
1	7.33	1	2	9	8	17			
1	7.75	1	2	10	10	20			
1	7.66	1	2	11	7	18			
0	7.16	1	1	16	12	28			
0	7.00	1	1	14	14	28			
0	7.33	1	2	13	14	27			
0	7.33	1	2	21	15	36			
0	7.41	1	2	16	10	26			
1	9.25	1	4	10	9	19			
1	9.08	1	4	9	12	21			
1	9.41	1	4	16	15	31			
1	9.08	1	4	10	13	23			
1	9.41	1	3	11	14	25			
0	9.84	1	4	17	14	31			
0	9.41	1	4	14	10	24			
0	9.00	1	4	12	11	23			
0	9.00	1	3	15	12	27			
0	9.25	1	3	13	12	25			
1	10.50	1	5	12	8	20			
1	10.16	1	4	10	13	23			
1	10.25	1	4	11	11	22			
1	10.58	1	4	14	11	25			
1	10.66	1	4	13	11	24			
0	10.50	1	5	8	11	19			
0	10.58	1	4	16	11	27			
0	10.50	1	5	16	12	28			
0	10.41	1	5	11	9	20			
0	10.41	1	4	18	17	35			
1	11.39	1	6	14	12	26			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black)

0= female 1= male

1	11.50	1	5	14	11	25			
1	11.84	1	5	15	14	29			
1	11.25	1	5	8	11	19			
1	11.50	1	5	14	7	21			
0	11.58	1	5	3	11	14			
0	11.00	1	5	13	11	24			
0	11.00	1	5	13	12	25			
0	11.00	1	5	8	8	16			
0	11.33	1	5	13	8	21			
0	6.92	2	1	13	11	24			
0	6.25	2	1	9	4	13			
0	6.50	2	1	6	4	10			
0	5.92	2	1	11	11	21			
0	6.16	2	1	9	6	15			
1	6.66	2	1	6	10	16			
1	6.25	2	1	8	8	16			
1	6.41	2	2	9	10	19			
1	6.66	2	1	11	8	29			
1	6.00	2	1	11	9	9			
0	7.08	2	2	3	6	9			
0	7.08	2	2	6	3	9			
0	7.08	2	2	10	5	15			
0	6.92	2	1	8	7	15			
0	7.33	2	1	8	7	15			
0	6.75	2	1	9	5	14			
1	7.41	2	2	9	7	16			
1	7.08	2	2	9	9	18			
1	6.92	2	1	14	9	23			
1	7.84	2	2	9	9	18			
1	7.92	2	1	14	7	21			
1	7.00	2	2	9	1	10			
0	9.16	2	3	11	7	18			
0	9.50	2	3	14	7	21			
0	9.08	2	3	15	13	28			

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)							*	*	*

0= female 1= male

0	9.84	2	3	10	11	21			
0	8.92	2	3	11	9	20			
0	9.58	2	3	5	1	6			
1	9.58	2	3	12	7	19			
1	9.08	2	3	16	8	24			
1	9.25	2	3	10	5	15			
1	9.08	2	3	9	10	19			
1	9.16	2	3	15	14	29			
1	9.08	2	2	4	5	9			
0	10.50	2	4	15	11	26			
0	10.16	2	4	7	10	17			
0	10.00	2	4	15	9	24			
0	10.58	2	4	15	10	25			
0	10.84	2	3	12	3	15			
0	10.00	2	3	17	11	28			
1	10.41	2	4	9	8	17			
1	10.58	2	4	20	13	33			
1	10.84	2	3	13	8	21			
1	10.16	2	4	7	8	15			
1	10.16	2	4	15	11	26			
1	10.08	2	4	14	10	24			
0	11.00	2	5	7	8	15			
0	11.58	2	5	10	11	21			
0	11.25	2	5	16	8	24			
0	11.08	2	6	12	12	24			
0	11.58	2	5	10	5	15			
0	11.25	2	6	9	12	21			
0	11.41	2	5	12	9	21			
1	11.25	2	4	4	7	11			
1	11.33	2	4	10	9	19			
1	11.25	2	4	14	10	24			
1	11.41	2	5	5	7	12			
1	11.58	2	5	5	5	10			
1	11.41	2	4	7	6	13			

DATA SET

SEX AGE GROUP GRADE N P T N P T
 (* Coloured children scored as black) * * *

0= female 1= male

1	11.00	2	4	11	5	16			
0	5.92	2	1	8	6	14			
0	6.58	2	1	12	7	19			
0	6.25	2	1	10	7	17			
0	6.16	2	1	9	7	16			
0	5.92	2	1	12	8	20			
1	6.58	2	1	12	9	21			
1	6.84	2	1	9	7	16			
1	6.68	2	1	9	6	15			
1	6.25	2	1	6	3	9			
1	6.50	2	2	12	4	16			
0	6.84	2	2	7	4	11			
0	7.16	2	2	8	5	13			
0	6.92	2	1	7	11	18			
0	6.92	2	1	8	10	18			
0	6.92	2	2	8	7	15			
1	7.75	2	2	8	6	14			
1	7.75	2	1	10	10	20			
1	7.50	2	2	7	7	14			
1	7.66	2	2	5	7	12			
1	7.08	2	1	13	4	17			
1	7.25	2	1	7	8	15			
0	9.08	2	2	12	7	19			
0	9.08	2	1	15	6	21			
0	9.33	2	1	12	9	21			
0	8.92	2	3	7	6	13			
0	9.41	2	3	10	7	17			
1	9.33	2	2	11	7	18			
1	9.00	2	2	13	12	25			
1	9.41	2	3	10	2	12			
1	9.50	2	3	9	11	20			
1	9.84	2	3	11	5	16			
0	10.58	2	4	9	7	16			
0	10.25	2	2	13	12	25			

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)							*	*	*
0= female 1= male									
0	9.84	2	1	13	12	25			
0	10.08	2	2	12	8	20			
0	10.00	2	2	13	9	22			
1	10.84	2	4	8	8	16			
1	10.25	2	3	14	8	22			
1	10.33	2	4	5	2	7			
1	10.08	2	2	6	8	14			
1	10.33	2	3	7	3	10			
0	11.25	2	4	11	6	17			
0	11.58	2	3	12	5	17			
0	11.33	2	4	6	3	9			
0	10.84	2	4	9	4	13			
0	10.92	2	4	12	11	23			
1	11.58	2	4	8	12	20			
1	11.66	2	4	12	12	24			
1	11.41	2	3	8	6	14			
1	11.58	2	4	15	8	23			
1	10.92	2	4	7	7	14			
0	6.41	3	1	11	8	19	10	9	19
0	6.08	3	1	10	15	25	11	2	13
0	6.58	3	1	8	10	18	13	7	20
0	6.66	3	1	10	15	25	11	2	13
0	6.08	3	1	11	9	20	10	8	18
1	6.16	3	1	11	7	18	9	10	19
1	6.25	3	1	9	6	15	12	11	23
1	6.50	3	1	6	15	21	15	2	17
1	6.75	3	1	10	10	20	11	7	18
1	6.41	3	1	8	15	23	13	2	15
0	7.25	3	1	12	10	22	9	7	16
0	7.08	3	2	11	12	23	10	5	15
0	7.66	3	2	15	15	30	6	2	8
0	7.08	3	2	12	11	23	9	6	15
0	7.16	3	2	17	15	33	4	2	6
1	7.58	3	1	11	10	21	10	7	17

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)							*	*	*
0= female 1= male									
1	7.08	3	1	15	14	29	6	3	9
1	7.00	3	2	9	11	20	12	6	18
1	7.00	3	2	5	4	9	16	12	28
1	7.25	3	1	15	15	30	6	2	8
1	9.33	3	4	10	8	18	6	13	19
1	9.00	3	3	8	6	13	13	11	24
1	9.84	3	4	8	10	18	13	7	21
1	9.08	3	3	13	8	25	8	9	17
1	9.08	3	4	13	4	17	8	13	21
0	9.50	3	3	16	14	30	5	3	8
0	9.00	3	3	11	14	25	10	3	13
0	9.75	3	4	9	8	17	12	9	21
0	9.08	3	4	12	8	20	9	9	18
0	9.25	3	4	5	14	19	16	3	19
1	10.33	3	5	7	15	22	14	2	16
1	10.00	3	5	11	10	21	10	7	17
1	10.58	3	5	7	6	13	14	11	25
1	10.50	3	5	10	10	20	11	7	18
1	10.58	3	5	18	15	3	3	2	5
0	10.84	3	5	10	6	16	11	11	22
0	10.41	3	5	7	9	16	14	8	22
0	10.41	3	5	9	8	17	12	9	21
0	10.25	3	5	8	10	18	13	7	20
0	10.00	3	5	12	7	19	9	10	19
1	11.16	3	6	5	8	13	16	9	25
1	11.41	3	6	8	8	16	13	9	22
1	11.66	3	6	7	10	17	14	7	21
1	11.84	3	6	7	9	16	14	8	22
1	11.00	3	6	13	7	21	8	10	18
0	11.66	3	6	7	14	21	14	3	17
0	11.25	3	6	7	11	18	14	6	20
0	11.41	3	6	16	14	30	5	3	8
0	11.00	3	6	12	14	26	9	3	12
0	11.25	3	6	10	13	23	11	4	15

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)							*	*	*
0= female 1= male									
1	6.66	3	1	16	16	32	5	1	6
1	5.84	3	1	16	15	31	5	2	7
1	6.58	3	1	13	6	19	8	11	19
1	6.33	3	1	13	6	19	8	11	19
1	6.41	3	1	12	12	24	9	5	14
0	6.50	3	1	14	15	29	7	2	9
0	6.33	3	1	16	16	32	5	1	6
0	6.00	3	1	12	12	24	9	5	14
0	6.58	3	1	17	17	34	4	0	4
0	6.58	3	1	9	16	25	12	1	13
1	7.33	3	2	13	14	27	8	3	11
1	7.33	3	2	15	12	27	6	5	11
1	7.66	3	2	11	14	25	10	3	13
1	7.50	3	2	14	11	25	7	6	13
1	7.08	3	2	12	14	26	9	3	12
0	7.16	3	2	15	11	26	6	6	12
0	7.41	3	2	14	7	21	7	10	17
0	7.41	3	2	14	11	25	7	6	13
0	7.16	3	2	11	13	24	10	4	14
0	7.16	3	2	11	11	22	10	6	16
1	9.66	3	4	11	11	22	10	6	16
1	9.58	3	4	15	13	28	6	4	10
1	9.00	3	4	11	11	22	10	6	16
1	9.00	3	4	8	13	21	13	4	17
1	9.41	3	4	9	12	21	12	5	17
0	9.25	3	4	9	10	19	12	7	19
0	9.08	3	4	9	7	16	12	10	22
0	9.33	3	4	11	15	26	10	2	12
0	9.00	3	4	4	10	14	17	7	24
0	9.16	3	4	8	10	18	13	7	20
1	10.08	3	5	12	10	22	9	7	16
1	10.58	3	5	8	6	14	13	11	24
1	10.58	3	5	14	11	25	7	6	13
1	10.00	3	5	9	11	20	12	6	18

DATA SET

<u>SEX</u>	<u>AGE</u>	<u>GROUP</u>	<u>GRADE</u>	<u>N</u>	<u>P</u>	<u>T</u>	<u>N</u>	<u>P</u>	<u>T</u>
(* Coloured children scored as black)									
0= female 1= male									
1	10.50	3	5	7	12	19	14	5	19
0	10.16	3	5	13	13	26	8	4	12
0	10.50	3	5	16	16	32	5	1	6
0	10.00	3	5	15	12	27	6	5	11
0	10.50	3	5	16	10	26	5	7	12
0	10.16	3	5	12	10	22	9	7	16
0	11.66	3	6	10	10	20	11	7	18
0	11.55	3	6	14	11	25	7	6	13
0	11.66	3	6	10	7	17	11	10	21
0	11.84	3	6	8	12	20	13	5	18
0	11.33	3	6	9	12	21	12	5	17
1	11.33	3	6	6	7	13	15	10	25
1	11.50	3	6	15	14	29	6	3	9
1	11.16	3	6	16	11	27	5	6	11
1	11.58	3	6	9	14	23	12	3	15
1	11.00	3	6	10	11	21	11	6	17