THE SELF-CONCEPT OF CHILDREN DISFIGURED BY BURNS AND THE EFFECT OF ROLE-PLAY ON THEIR SELF-CONCEPT

by

PAUL FREDERICK FROST, B.SOC.SC.(HONS)

Thesis submitted to the Department of Psychology, University of Cape Town, in fulfilment of the requirements for the degree of

Master of Social Science in Psychology

Supervisor : Dr Don Foster

Cape Town : April 1983
The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.
"The man who is very ugly in appearance, or ill born, or solitary and childless is not very likely to be happy"

Aristotle
Dedication

This thesis is dedicated to
my parents
I would like to acknowledge the following people who made this thesis possible:

Professor S. Cywes, Head of the Department of Paediatric Surgery, Red Cross War Memorial Children's Hospital, for permission to undertake research in his department.

My supervisor, Dr Don Foster, of the Department of Psychology, University of Cape Town, for his guidance, assistance and encouragement.

Dr Blanche de Wet, Principal Social Worker, Red Cross War Memorial Children's Hospital, for her advice, assistance and encouragement.

and

Mrs Jeanette Wood for so ably typing the thesis.
ABSTRACT

This study aimed at investigating the role of physical-distinctiveness as a pertinent feature of self-concept, using the special case of children disfigured by burns. Within this group of children, the study also aimed to explore, by means of a comparative study, the possibility of improving the self-concept of burned children, through the use of selected components of the D.U.S.O. Guidance Programme. Lastly, the study aimed at gaining a clear picture of the burned child in terms of both social and psychological features.

Twenty-seven subjects, in three matched groups (burn treatment group, burn control group and non-burn control group) took part in the study. The burn treatment group participated in the D.U.S.O. Programme which took place over a period of five consecutive days with five daily sessions of 1½ hours each. The burn control group took part in sessions similar to those of the burn treatment group, except that they participated in play and not the D.U.S.O. Programme. The non-burn control group was introduced as a baseline measure and did not take part in any sessions.

It was hypothesized that the burn groups of children would show a significant increase in overall self-concept as a result of enrichment offered by the daily sessions. It was similarly hypothesized that, due to enrichment provided by
the D.U.S.O. Programme, the burn treatment group would, when compared to the burn control group, show a significant increase in overall self-concept. It was further hypothesized that the burn treatment group would, when compared to the control groups, show a significant increase in social-self, parental-self, physical-self and school-self self-concept subscales while showing a significant decrease in aggression and body-image disturbance scores on the Draw-a-Person test, due to the greater understanding and acceptance of the self promoted by the D.U.S.O. Programme.

Data obtained through the use of Laubscher's (1978) Self-Concept Questionnaire for Primary School Children (Afrikaans) and Machover's Draw-a-Person test failed to support the hypotheses. A broad trend for the burn treatment group to increase on social- and physical-self subscales of self-concept was, however, found. Quantitative data were combined and these, together with data from an Adaptation Questionnaire, based on the American Association on Mental Deficiency's "Adaptive Behaviour Scale" (1975), formed the basis for building-up a profile of the psycho-social adjustment of the burned child.

Results were discussed with reference to the literature. The study's limitations were examined and future areas of research were suggested.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter 1 : Self-Concept</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Self, Self-Concept and Identity</td>
<td>1</td>
</tr>
<tr>
<td>The Origins and Development of the Self</td>
<td>2</td>
</tr>
<tr>
<td>Classical Theorists</td>
<td>6</td>
</tr>
<tr>
<td>Towards a Definition of Self-Concept</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 2 : Body-Concept</th>
<th>26</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body-Image and the Self</td>
<td>31</td>
</tr>
<tr>
<td>The Importance of Body-Image</td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 3 : Stigma and Handicap</th>
<th>46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>46</td>
</tr>
<tr>
<td>Definitions</td>
<td>47</td>
</tr>
<tr>
<td>The Effects of Physical Handicap on the</td>
<td>50</td>
</tr>
<tr>
<td>Self and Others</td>
<td>55</td>
</tr>
<tr>
<td>Ideal and Real-Self Disparity</td>
<td>55</td>
</tr>
<tr>
<td>Coping and Coping Mechanisms</td>
<td>60</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 4 : Behaviour Change</th>
<th>68</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>68</td>
</tr>
<tr>
<td>Social Learning Theory</td>
<td>70</td>
</tr>
<tr>
<td>Modelling</td>
<td>73</td>
</tr>
<tr>
<td>Role-Playing</td>
<td>78</td>
</tr>
<tr>
<td>Summary and Conclusions</td>
<td>86</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 5 : Aims of the Study and Hypotheses</th>
<th>87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>87</td>
</tr>
<tr>
<td>Background to Burn Profile</td>
<td>88</td>
</tr>
<tr>
<td>Burn Profile</td>
<td>89</td>
</tr>
<tr>
<td>Summary of Main Findings on Burned Children</td>
<td>91</td>
</tr>
<tr>
<td>Some Factors Influencing Adjustment</td>
<td>92</td>
</tr>
<tr>
<td>Psychological Intervention</td>
<td>96</td>
</tr>
<tr>
<td>Self-Concept and Enrichment</td>
<td>98</td>
</tr>
<tr>
<td>D.U.S.O. Programme</td>
<td>100</td>
</tr>
<tr>
<td>Aims of Study</td>
<td>102</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>104</td>
</tr>
<tr>
<td>Chapter</td>
<td>Page No.</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Chapter 6 : Method</td>
<td></td>
</tr>
<tr>
<td>Subjects</td>
<td>107</td>
</tr>
<tr>
<td>Design</td>
<td>107</td>
</tr>
<tr>
<td>Assessment</td>
<td>110</td>
</tr>
<tr>
<td>Test Selection</td>
<td>111</td>
</tr>
<tr>
<td>Self-Concept Questionnaire</td>
<td>112</td>
</tr>
<tr>
<td>Machover's Draw-a-Person Test</td>
<td>113</td>
</tr>
<tr>
<td>Adaptation Questionnaire</td>
<td>117</td>
</tr>
<tr>
<td>The D.U.S.O. Programme</td>
<td>119</td>
</tr>
<tr>
<td>Procedure</td>
<td>125</td>
</tr>
<tr>
<td>Chapter 7 : Results</td>
<td>128</td>
</tr>
<tr>
<td>Analyses</td>
<td>128</td>
</tr>
<tr>
<td>Combination of Statistical Data</td>
<td>149</td>
</tr>
<tr>
<td>Behaviour and Adjustment</td>
<td>152</td>
</tr>
<tr>
<td>Chapter 8 : Discussion</td>
<td>157</td>
</tr>
<tr>
<td>Intervention Programme</td>
<td>157</td>
</tr>
<tr>
<td>Role-Play</td>
<td>164</td>
</tr>
<tr>
<td>Profile of the Burned Child</td>
<td>166</td>
</tr>
<tr>
<td>Summary of Discussion</td>
<td>178</td>
</tr>
<tr>
<td>Chapter 9 : Limitations of Study and Implications for Future Research</td>
<td>183</td>
</tr>
<tr>
<td>Limitations of Study</td>
<td>183</td>
</tr>
<tr>
<td>Implications of Findings</td>
<td>188</td>
</tr>
<tr>
<td>Future Research</td>
<td>192</td>
</tr>
<tr>
<td>Summary Statement</td>
<td>196</td>
</tr>
<tr>
<td>References</td>
<td>200</td>
</tr>
<tr>
<td>Appendices</td>
<td>212</td>
</tr>
<tr>
<td>Table No.</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>D.U.S.O. Programme Schedule</td>
</tr>
<tr>
<td>2</td>
<td>Summary of Overall Self-Concept Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>3</td>
<td>Summary of Changes in Mean Overall Self-Concept Scores</td>
</tr>
<tr>
<td>4</td>
<td>Anova Summary Table for Overall Self-Concept</td>
</tr>
<tr>
<td>5</td>
<td>Summary of Social-Self Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>6</td>
<td>Summary of Changes in Mean Social-Self Scores</td>
</tr>
<tr>
<td>7</td>
<td>Anova Summary Table for Social-Self</td>
</tr>
<tr>
<td>8</td>
<td>Simple Main Effects Summary Table for Social-Self</td>
</tr>
<tr>
<td>9</td>
<td>Summary of Parental-Self Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>10</td>
<td>Summary of Changes in Mean Parental-Self Scores</td>
</tr>
<tr>
<td>11</td>
<td>Anova Summary Table for Parental-Self</td>
</tr>
<tr>
<td>12</td>
<td>Summary of Physical-Self Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>13</td>
<td>Summary of Changes in Mean Physical-Self Scores</td>
</tr>
<tr>
<td>14</td>
<td>Anova Summary Table for Physical-Self</td>
</tr>
<tr>
<td>15</td>
<td>Simple Main Effects Summary Table for Physical-Self</td>
</tr>
<tr>
<td>16</td>
<td>Summary of Tukey's Pairwise Comparisons for Physical-Self</td>
</tr>
<tr>
<td>Table No.</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>17</td>
<td>Summary of School-Self Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>18</td>
<td>Summary of Changes in Mean School-Self Scores</td>
</tr>
<tr>
<td>19</td>
<td>Anova Summary Table for School-Self</td>
</tr>
<tr>
<td>20</td>
<td>Summary of Body-Image Disturbance Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>21</td>
<td>Summary of Changes in Mean Body-Image Disturbance Scores</td>
</tr>
<tr>
<td>22</td>
<td>Anova Summary Table for Body-Image Disturbance</td>
</tr>
<tr>
<td>23</td>
<td>Summary of Aggression Means, Standard Deviations and Ranges</td>
</tr>
<tr>
<td>24</td>
<td>Summary of Changes in Mean Aggression Scores</td>
</tr>
<tr>
<td>25</td>
<td>Anova Summary Table for Aggression</td>
</tr>
<tr>
<td>26</td>
<td>Comparison of the Physical-Self Subscale, Body-Image Disturbance and Aggression Scores</td>
</tr>
<tr>
<td>27</td>
<td>Selected Analysis of Burn Subjects' Behaviour</td>
</tr>
<tr>
<td>28</td>
<td>Comparison of Self-Concept Scores for 'Coloureds' and Whites</td>
</tr>
</tbody>
</table>
**LIST OF FIGURES**

<table>
<thead>
<tr>
<th>Figure No.</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Role of Others in the Formulation of Self-Concept</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>Bahnson's Model of Three Dimensional Self-Experience</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Bahnson's Model of Layered Phenomenological &quot;Selves&quot;</td>
<td>34</td>
</tr>
<tr>
<td>4</td>
<td>The Effect of Objective Public Evaluation on Self-Evaluation and Self-Concept</td>
<td>57</td>
</tr>
<tr>
<td>5</td>
<td>Hypothesized Screening Device Employed in Coping with Information Threatening to Self-Esteem</td>
<td>66</td>
</tr>
<tr>
<td>6</td>
<td>The Programme Design</td>
<td>110</td>
</tr>
<tr>
<td>7</td>
<td>Mean Overall Self-Concept Scores</td>
<td>132</td>
</tr>
<tr>
<td>8</td>
<td>Mean Social-Self Scores</td>
<td>134</td>
</tr>
<tr>
<td>9</td>
<td>Mean Parental-Self Scores</td>
<td>137</td>
</tr>
<tr>
<td>10</td>
<td>Mean Physical-Self Scores</td>
<td>139</td>
</tr>
<tr>
<td>11</td>
<td>Mean School-Self Scores</td>
<td>144</td>
</tr>
<tr>
<td>12</td>
<td>Mean Body-Image Disturbance Scores</td>
<td>146</td>
</tr>
<tr>
<td>13</td>
<td>Mean Aggression Scores</td>
<td>148</td>
</tr>
</tbody>
</table>
CHAPTER 1

SELF-CONCEPT

THE SELF, SELF-CONCEPT AND IDENTITY

Any writer entering a field involving phenomenological experience, self-definition, and the like, soon becomes aware that he has entered a rather murky world. For, there, a plethora of concepts exist such as self, ego, self-concept, proprium, self-system, dynamism, identity and self-image to name but a few. Unfortunately, many writers use most of these concepts interchangeably. This lack of clarity, as well as the fact that the field concerns individual consciousness, has led writers such as Nel (1977: 82) to remark that the field does not readily lend itself to empirical research.

For the sake of clarity, it is stated at the outset, that the concepts "self" and "self-concept" are seen as being synonymous for the purpose of this thesis. Other concepts will be discussed later, where necessary.
THE ORIGINS AND DEVELOPMENT OF THE SELF

Webster and Sabieszek (1974) identify two different sets of ideas about the origins and the development of the self and the individual's awareness of himself that have influenced most contemporary sociological and psychological thought. One of these is the concept of the developmental self. In this orientation, the self - seen as roughly equivalent to the set of personality characteristics, or the "personality" of the individual - develops in a manner similar to, and heavily influenced by, the body's biological growth. This means that the individual grows with unique traits, habits, attitudes and values - all from a core set of inherited instincts, psychic energy and any personality predispositions present at birth. One of the leading exponents of this viewpoint would be Freud, with his idea of psycho-sexual stages.

The development of the self can be viewed as a process of maturation, the growth and channelling of all that the individual was born with. The individual, and the personality traits he exhibits, are considered to result from an interaction between his innate predispositions and the environmental possibilities and influences afforded by his life circumstances.

Webster and Sabieszek (1974) see the crucial feature of
the developmental self as being the primacy of inborn needs and traits as well as the interpretation of maturation and growth as being essentially a modification of what has existed in the individual from birth. In this view the end product - the visible personality and the self that is produced - is at least as dependent on biological inheritance as it is on the social influences impinging on the individual and the interactions and experiences that he has.

The second concept is called the social self. Those adopting this point of view stress the importance of contact with others for the development of personality. An extreme interpretation of this viewpoint asserts that not only are others essential to the growth and form of the resulting personality, but that they are essential if there is to be any self at all. In this regard Webster and Sabieszek (1974: 2) state:

"Adherents to this orientation sometimes argue that there is no meaningful way to speak of the existence of a person or of his personality without reference to the shaping effects of his contacts with others."

Proponents of the "social-self" view, often called "environmentalists", gave rise to at least two forms of thought which developed in the twentieth century.
Behaviourism became the earliest dominant form of American psychology and approached personality development solely in terms of social learning (Kantor, 1976: 488). The individual is seen as nothing more than what he has been taught by others and what he has learnt through social experiences. According to London (1976: 457), behaviourism represented a reaction against elaborate psychoanalytic formulations - especially against the assumption of innate behaviour predispositions and instincts. The behaviouristic approach stresses the assumption that human behaviour may be studied or analysed as if it were determined only by specifiable external influences; the individual is seen as being more acted upon than he acts and, even when he does act, the action itself is understandable as a learned reaction to external stimuli (Skinner, 1969).

A more sophisticated form of environmentalist thought developed through the early writings of William James, Charles Horton Cooley, George Herbert-Mead and Harry Stack Sullivan, to such contemporary figures such as Erving Goffman and Carl Rogers. These theorists, like behaviourists, reject the necessity for positing innate sources of behaviour, and stress, primarily, the effects of the individual's social interaction in forming his personality. Unlike behaviourists, however, the idea of a "self-concept" plays a crucial role in these environmentalists' explanation of observable behaviour. The individual is seen to differ
from inanimate objects studied in the natural sciences because he possesses self-awareness, and a self-consciousness that is effected by it, and in turn effects the social environment (Shaw and Bransford, 1977: 111). In order to distinguish this approach from that of behaviourism, and at the same time emphasise the central importance placed on self-consciousness and the self as the mediator of interaction with the external world, Webster and Sabieszek (1974: 3) call it the "symbolic interactionist approach" - shortened, more simply, to the "interactionist approach".

Ideas similar to those of the interactionist approach appear at least as far back as Cooley and Mead (Armistead, 1974; McGrath, 1970). Cooley's general principle, referred to as the idea of the "looking glass self" (Armistead, 1974; Webster and Sabieszek, 1974: 3), states a person's self-concept is considered to be dependent on observing the reactions and opinions of others towards himself. In this view the personality is formed, not partially, but wholly through experience of the individual interacting with others. The individual is thought to be aware of himself and of his actions, and he is seen as an active agent who exercises a degree of control over the action he chooses. It is not clear if there is an original core trait such as the id, but what is clear is that if such a core is believed to exist, it could be composed of nothing more important than a source of energy and a
disposition to engage the world in physical activity.

The notion of self-concept - who an individual thinks he is and the unique traits he believes he possesses - is at the core of virtually all issues of social psychology (Webster and Sabieszek, 1974: 7). The individual is acted upon by his environment, and specific effects of the environment are mediated by his interpretation of them and how he thinks they are meaningful to him. The individual also acts on his environment, and his actions are partially determined by the kind of person he thinks he is, or wants to be.

A better understanding of this interactionist perspective can be promoted by a brief look at some of the classical theorists and their major contributions to the self.

**CLASSICAL THEORISTS**

**William James**

James was one of the first psychologists to write extensively on the self (Epstein, 1973: 405).

Fundamental to James' theory was a distinction between the self as an active element in thinking and the self as an
object. In this, James was at one with Hume who felt that the two selves are distinct. Both men believed that the self as thinker could never be caught as an object of thought. This active part, the "I", could be felt and inferred. In this, one has a strong feeling that the "I" which thinks today is the "I" who thought yesterday (Schneider, 1976: 330).

James, although admitting that one can never experience an agent thinking inside one's head, posits that a person does have feelings which accompany thinking. For example, people are conscious of selecting certain thoughts or paying attention to certain stimuli. Phenomenologically, people are aware that they do not merely record what their senses capture, but rather that they modify, select and recognise as well: Furthermore, each person feels that this "I" is a thing apart, which is situated in the world, but which is in contact with its objects.

This "I" is an object of experience, or more correctly, is an element in experience, that a person infers or feels, a something which is necessary to complete an analysis of one's thought processes rather than a real object which the individual sees with his mind's eye. There are, however, elements of experience which can be direct elements of thought. These James called the "Me". The two main classes of such experience are the material self and the
At the core of the experience of ourself are our clothes and possessions. James believes that one's own body is a primary object of experience - in some primal sense a person identifies with the body he or she is stuck with. As one grows older, a person's family and possessions become extensions of this bodily "me" and ordinarily a person has strong feelings of pride and shame associated with these as they are experienced as one's own.

The social self is that part of experience and material aspects of the self which are open to the evaluations from others. People, according to James, desire recognition from others, and he claims that feelings of honour and pride are intimately bound to such recognition. Basically, a man has as many social selves as there are individuals who recognise him and carry an image of him in their mind and to wound any of these experiences is to wound him. But, as the individuals who carry images fall naturally into classes, we can say that he has as many different social selves as there are distinct groups of persons about whose opinion he cares.

James recognised that some parts of the "me" are grouped together as they are thought to be objects of another's evaluation. Furthermore, he implies that one's own
feelings of self-worth, or self-esteem, are partially dependent on what others think of one. James did, however, make an important qualification in this regard: self-esteem can only be effected if the "I" cares about the "me" under consideration.

Cooley

Cooley introduced into self-concept theory the notion of the "looking-glass self".

"In a very large and interesting class of cases the social reference takes the form of a somewhat definite imagination of how one's self — that is, any idea he appropriates — appears in a particular mind, and the kind of self-feeling one has is determined by the attitude towards this attributed to the other mind. A social self of this sort might be called the reflected or looking-glass self:

'Each to each a looking-glass
Reflects the other that doth pass.'

As we see our face, figure and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be; so in imagination we perceive in another's mind some thoughts of our appearance, manners, aims, deeds, characters, friends, and so on, and are variously
affected by it." (Cooley, 1902: 183-184)

In addition, the looking-glass is tempered by the individual's knowledge of the others and, to a degree, by his assessment of them:

"The thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind. This is evident from the fact that the character and the weight of that other, in whose mind we see ourselves, makes all the difference with our feelings. We are ashamed to seem evasive in the presence of a straightforward man, cowardly in the presence of a brave one, and so on. We always imagine, and in imagining share, the judgements of the other mind." (Cooley, 1902: 184-185)

According to Webster and Sabieszek (1974: 9) the significance Cooley assigns to the individual's assessment of the other seems to come from an implied comparison of the self with the other. They claim that, although it is difficult to be certain about the precise kind of importance Cooley attaches to the nature of the other, it is clear that he does not suggest that all others with whom the individual interacts, are equal in determining his self-concept.

A further contribution made by Cooley is what may be called
the "internalized other". Through interaction, the individual comes to develop a mental image of others with whom he interacts. This internal image may be a distortion of reality. Although Cooley does not specify whether this conceptualization of an internal image is stable or changing, he does imply that there is a conscious awareness, and that this awareness determines both how the individual reacts to others and the looking-glass self-image he holds.

Mead modified and extended the ideas of Cooley and James and introduced the concept of the "generalized other", which is prominent in most contemporary discussions of the looking-glass self.

Mead was strongly influenced by James and American pragmatism and it was no accident that he made the theory of the self central to the understanding of social psychology (Schneider, 1976: 332).

For Mead:

"The self has the characteristic that it is an object to itself, and that characteristic distinguishes it from other objects and from the body." (1934: 136)
Here, Mead gets to the heart of Jamesian insight by seeing that a person experiences the self, not directly, but from the viewpoint of other people.

Central to Mead's understanding of the development of the self is the "generalized other". This "generalized other" consists of the attitudes of the entire set of others, with whom the individual interacts. To quote Mead:

"The organized community or social group which gives to the individual his unity of self may be called the 'generalized other'. The attitude of the generalized other is the attitude of the whole community." (1934: 154)

Mead saw as one of the crucial elements for social maturity as being the ability to see things from more than one perspective. The concept of taking the role of the other refers to processes whereby one anticipates the actions of another person. Mead pointed out (1934: 153-154) that children can play organized games with other children only after they have developed a role-taking ability. For example, a child can only play the game of hide-and-seek if, as a hider, the child takes the role of seeker into account and anticipates his actions. The importance of children's games in the development of the self, it may be speculated, is significant. This speculation stems from
the fact that most children's games involve an interchange of roles, e.g. first "hider", then "seeker".

For Mead the self grows primarily through the incorporation of evaluations of others. And, since one continues to co-ordinate one's behaviour with that of others in order to maintain the approval of these others, the self grows throughout adulthood. It can be seen, then, that the self is not merely the residue of the past evaluations of others, but that it is a process of continued evaluation in terms of continually changing perspectives. In this regard, Schneider (1976: 333) notes:

"The self is more a process than object."

Mead's discussion of the generalized other and the importance of the individual's perception of himself in such a context, suggests the idea of social roles with the individual developing an awareness of social roles he plays within the community. As the idea of role implies the possibility of more than one social role - with the individual adopting different roles at different times or within different contexts - means that it would be incorrect to see the self as conceptually comprising a singular role, but rather as a multiplicity of selves or self-references.

The images in Cooley's idea of the looking-glass self could be perfectly malleable, with the individual's self-
conception being solely dependent on the reflected appraisal of others. Such instability, as Webster and Sabieszek (1974: 12) point out, is intuitively implausible. It is here that Mead made another important contribution by investing the looking-glass self with a greater permanence of structure by introducing the idea that the self was capable of being partially resistant to change.

Sullivan

Although Cooley did not see all persons contributing to an individual's self-concept, Sullivan added to the looking-glass self by introducing the term "significant other". As Sullivan was primarily concerned with the socialization of the infant and child, his application of the term was restricted to parents - significant others being those persons who are instrumental in training a child in the attitudes and behaviours necessary for becoming an adult.

Use of the term has, however, gradually been extended to include all those who are instrumental in the formation of the individual's self-concept. In this sense, a significant other is one whose opinions and actions "matter" to the individual, one whose esteem he values, and whose disapproval he avoids. From this it would follow, for example, that it is more self-enhancing for a child to have his work praised by the teacher than the class dunce, more
pleasing to be complimented by a person known to have taste than by an obvious boor. From the above it can be seen, as Epstein (1973: 406) points out, that Sullivan saw the major function of the self as being that of avoiding unpleasant affect.

Erikson

Following the tradition of James, Cooley, Mead and Sullivan, Erikson (1950: 130) tells us:

"The ability to enter into relations of intimacy and mutuality opens the way to experiences in which the self expands beyond its own limitations in a depth of feeling, understanding and insight. One's identity may be, not weakened, but strengthened by the meaning one has for others in one's group and by respect for these other persons as distinct individuals."

Erikson seems to make a special contribution to the understanding of the way in which various identifications and introjections of the developing individual are woven into the "I" and "me" (Lynd, 1958: 205). In his view, the integration into the "I" is more than a sum total or an integration of social roles, more than the persona, although these are parts of the fabric.

Erikson regards the awareness of oneself as a special
characteristic of development and also as essential for maturity. He partially rejects Freud's limited notion of psycho-sexual development (Calhoun, 1972: 45) and has supplemented it with his stages of psycho-social development. At each stage of development, Erikson believes, there is an excess of surplus internal energy and the possibility of enhanced support from social relations that makes it possible for the individual to meet the potential crisis in such a way as to incorporate the resolved conflict into strengthened identity.

He traces eight stages in the development of personality, each of which involves a conflict and a possible crisis. Each stage may give rise to special difficulties if it's particular conflict is not resolved in a way that is constructive for the growing person, and each has special possibilities for the enlargement of personality and increased strength of identity if it is so resolved.

These potential component strengths begin or end in it's period of special climax. Each begins, potentially, in some form at the beginning of life, and the conflict that each has found continues, in some form, throughout life. Each conflict stage is conceived not only as in the compensatory theory of personality as a threat of a destructive crisis that must be coped with or overcome, but also as an opportunity for accrued strength. Each
stage involves both the inner self and its relation to the social situation in the outer world.

As the emphasis by the above classical theorists on the importance of others in the development of the self forms the basis for most current thought and theory on the self, their contributions to our knowledge in this field has been substantial. Following their writings, this writer has adopted the interactionist viewpoint (pp. 3-6) on the development of the self.

TOWARDS A DEFINITION OF SELF-CONCEPT

Before attempting to define self-concept, it is necessary to examine the dimensions of the self. From the question "Who am I?" another question arises, "What kind of person am I for being what I am?" (Schneider, 1976: 334). The first question is one of identity and the second one of self-evaluation.

Identity

For Du Preez (1980: 7) identity is seen as the appearance of the self - the way in which the self is perceived and understood by persons. He sees the self as a component of the psychological processes by which we explain behaviour,
and identity as the appearance of the self in that process.

Du Preez's distinction between identity and the self can be illustrated by the fact that people tend to describe themselves (Montemajor and Eisen, 1977) and perhaps think of themselves (Schneider, 1976: 334) in terms of objective circumstances such as age, sex and roles. Goffman (1959: 13) sees these designations as being used because they seem to convey a lot of information in a hurry and because they help orient others' reactions.

Similarly, people use personality traits to describe themselves (Schneider, 1976: 334). Most people would seem to think of their real "me" as being an intricate constellation of traits, behavioural tendencies, and the like. These characteristics, however, should not be seen as stable elements, as moods and situational forces cause the saliency of each element to vary.

**Self-Evaluation**

As Epstein (1973: 504) points out, everyone makes self-evaluations and has some notion regarding variables such as self-confidence and self-esteem. These concepts are, however, not easy to conceptualize or measure, even though such terms are in everyday use. Self-evaluation is often used to designate a person's evaluation of a specific
ability, attribution or possession (Schneider, 1976: 334).

Schneider makes three points regarding this treatment of self-evaluation. First, self-evaluations, as conceptualized, refer to specific attributes only - the person evaluates one given aspect of the self, not the entire self. Second, the evaluation is, or can be in principle, measured against some objective or absolute standard. Lastly, self-evaluations are subject to validation - to confirmation or disconfirmation in the light of evidence from the physical world of other people.

Self-Esteem

Closely linked to the concept of self-evaluation is the notion of self-esteem. Self-esteem, unlike self-evaluation, refers to a sense of evaluation which is of a more global and subjective nature and is independent of evidence. Generally, self-esteem refers to a person's self-liking. For a thorough analysis of self-esteem from the theoretical viewpoints of James, Mead, Cooley, Sullivan, Rogers, etc., the reader is referred to Gordon (1969: 353-356).

What is Self-Concept?

It will be useful to look at the characteristics that writers have attributed to self-concept before attempting to
define it.

Epstein (1973: 408), after reviewing a variety of positions on self-concept, summarized the following characteristics of self-concept:

1. It is a subsystem of internally consistent, hierarchically organized concepts contained within a broader conceptual system.

2. It contains different empirical selves, such as a body self, a spiritual self, and a social self.

3. It is a dynamic organization that changes with experience. It appears to seek out change and exhibits a tendency to assimilate increasing amounts of information, thereby manifesting something like a growth principle.

4. It develops out of experience, particularly out of social interaction with significant others.

5. It is essential for the functioning of the individual that the organization of the self-concept be maintained. When the organization of the self-concept is threatened, the individual experiences anxiety, and attempts
to defend himself against the threat. If the defence is unsuccessful, stress mounts and is followed ultimately by total disorganization.

6. There is a basic need for self-esteem which relates to all aspects of the self-system, and, in comparison to which, almost all other needs are subordinate.

7. The self-concept has at least two basic functions. First, it organizes the data of experience, particularly experience involving social interaction, into predictable sequences of action and reaction. Second, the self-concept facilitates attempts to fulfil needs while avoiding disapproval and anxiety.

Similarly, Shavelson, Hubner and Stanton (quoted in Laubscher, 1981: 2) propose a hierarchical model as a way of explaining self-concept development:

- Self-concept is a person's perception of himself.

- These perceptions are formed through his experience of his environment.

- One's perceptions of oneself are thought to influence the ways in which one acts, and one's acts in turn
influence the way in which one perceives oneself.

- The multifaceted structure of self-concept may be hierarchical on a dimension of generality. That is, facets of self-concept may form a hierarchy from individual experiences in particular situations at the base of the hierarchy to the general self-concept at the apex.

- As one descends the self-concept hierarchy, self-concept depends increasingly on specific situations and thus becomes less stable.

- To change general self-concept, many situation-specific instances inconsistent with general self-concept, would be required.

Bearing these characteristics in mind, a look at a few definitions of self-concept and its development would be instructive.

"The self-concept is formed and developed through social intercourse, private reactions of the individual to himself, mastery in solving developmental tasks and competence in dealing with total human life situations." (Coopersmith, 1967: 20)

"The self is not a thing, it is a complex process of continuing interpretive activity
- simultaneously the person's located subjective stream of consciousness (both reflexive and non-reflexive, including perceiving, thinking, planning, evaluating, choosing, etc.), and the resultant accruing structure of self-conceptions (the special system of self-referential meanings available to this active consciousness)."  
(Gordon, 1969: 329)

Cooley (in Laubscher, 1981: 1) defines self-concept as a function of the interaction between the person and his social environment. Self-concept comprises any idea, or system of ideas, drawn from the communicative life, that the mind cherishes as his own.

"The self is more a process than object."  
(Schneider, 1976: 333)

It is clear from these definitions and the discussion of social interaction, that self-concept is largely a function of others. It is hardly surprising, then, that, as Laubscher (1981: 4) states, that of all the global theories on self-concept, the symbolic interaction theory is the most widely accepted.

The role of others in the formulation of self-concept is illustrated in Figure 1 (overleaf).
After having listed some of the characteristics of self-concept and discussed others, it would be appropriate to sum the data and present a definition of self-concept which neatly encapsulates all. The number of different definitions would seem to be indicative of the difficulties involved in such a task. Two definitions are given which, each in their own way, represent what has been said:

"Self-concept is a self-theory. It is a theory that the individual has unwittingly constructed about himself as an experiencing functioning individual, and it is part of a broader theory which he holds with respect to his entire range of significant experience. Accordingly, there are major postulate systems for the nature of the world, for the nature of the self, and for their interaction." (Epstein, 1973: 407)

and, more simply:

"Self-concept is who an individual thinks he
is and the unique traits he believes himself to possess." (Webster and Sabieszek, 1974: 7)

In the discussion of self-concept, it was seen that it is a multifaceted structure, consisting of a number of concepts. One of these concepts is the body-concept and, as this research is centrally concerned with this, we need to examine it in detail. This is done in the following chapter.
CHAPTER 2

BODY-CONCEPT

As with the concept of self-concept, body-concept (or the concept of body image*) cannot be readily defined. Manganyi (1970: 9) notes that there is a consistent trend in the literature regarding usage of the terms "body-image", "body-percept", "body-scheme", "postural model", "body-concept", "body-ego" and "body experience" as if they were interchangeable.

He states (1970: 11-12) that a study of the literature leads to the conclusion that the problems relating to the clarification of the meaning of the concept "body-image" have arisen primarily due to unresolved subsidiary problems. He lists the more important problems as:

(1) The age-old mind-body problem. Here, he points out that it does not seem to have been established whether the dichotomy is essentially meaningful - or even if it is legitimate.

(2) The second problem is related to the conceptual

*The terms "body-concept" and "body-image" will, for the purpose of this study, be considered interchangeable.
confusion concerning concepts such as "perception" and "sensation", "cognition" and "consciousness". He states that confusion in this regard is illustrated by the indiscriminate use of the terms such as "perceived-body", "body-percept", "body-image" and "body-consciousness" and the fact that these terms are used interchangeably.

(3) He sees the third problem as originating from the transposition of concepts from neurophysiology to psychology, and vice versa. The problem, here, being that the concepts are used in both disciplines as if they had the same referents in both frames of reference.

(4) There are several personality theories in psychological literature. Here, Manganyi points out that Fisher and Cleveland (1958) have convincingly argued that none of these theories have incorporated body-image as part of their total theoretical scheme.

(5) The last problem relates to the attempt to localize the body-image in the dominant parietal cortex.

Gerstman (1958: 500) defined body-image as follows:

"By body-image, or body schema, is understood the inner picture or model which one forms in one's mind, of one's body or one's physical
self, in the course of life; and which one carries with one unwittingly, that is, outside of central consciousness.* It is a kind of mental diagram representing one's body as a whole, as well as its single parts and territories according to their location, shape, size, structural and functional differentiation and spatial interrelation. It also represents the cardinal directions of the body; left and right, anterior and posterior, up and down. The body schema can thus be conceived of as a complex of intimately correlated and integrated individual schemas; some of them seem to predominate over the rest. There is conclusive evidence, on the basis of specific investigations, that sensory experiences arising from various areas and organs of the body, namely tactile, proprioceptive (including labyrinthine) and optic experiences, and probably to some extent other receptive factors (such as visceral sense-data); all contribute in the integration of the body image or schema to a highly organized arrangement. This is the service of general and special recognition and orientation in the body sphere and, in a broader sense, of the relation of the body to external objects and space. Like all highly integrated neural arrangements, this is a process of physio-psychic activity."

*Emphasis is that of the present author
This definition would seem to indicate that Gerstmann sees body-image to be of an unconscious nature. Gerstmann, however, reflects the semantic statement when, in the same article (p.499) he states the concept of body-image is concerned with "body-consciousness".

Bennet (in Manganyi, 1970: 10) also attempted to define body-image:

"We can, therefore, define the body concept as the set of phenomena named by an individual when asked to describe the body, reply to a questionnaire, or draw a human figure. This is a general body concept. An individual's concept of his own body could be the set of phenomena named by him when asked to describe his own body, reply to a questionnaire or draw it."

While Manganyi does not see this definition as contributing towards the resolution of the controversies concerning the definition of the concept of "body-image", he is, nevertheless, of the opinion that it has the unique value of being a useful working definition for research purposes. A problem here, however, is that, with the exception of human figure drawing, it is difficult to see how unconscious sources of body-image can be tapped.

It becomes clear, when comparing writers on body-image, that there is considerable agreement on various aspects of
body-image. Stress is laid on the role of significant others, communication and socialization (Bahnson, 1969: 266; Greenacre, in De Levita, 1965: 108; Frank, 1939 Schilder, in Manganyi, 1970: 6; Gorman in Manganyi, 1970: 20). Kolb (in Nel, 1977: 85) is representative of these writers when he stated that the form and quality of an individual's body-image is mainly a result of his socializing experiences. The second area of agreement of importance for this study is that concerning the importance of body-image. For writers such as Bahnson (1969: 266), Lynd (1958: 137), Van Niekerk (1972: 17), Gorman in Nel (1977: 88) all emphasize the importance of body-image to the self as a whole. (Gorman (in Manganyi, 1970: 20) asserts that most observers agree that ego development is dynamically linked to the development of body-image.

Bearing in mind the above two points, and following Nel (1977: 85), body-image can, for the purpose of a working definition for this study, be defined as follows:

"Body-image refers to a person's conceptualization and evaluation of his body. Body-image involves an inner symbolic representation of the body, the concept which a person constructs as a result of perceiving and experiencing his own body as well as the bodies of others. It refers to a person's evaluation of his body in terms of characteristics such as strength, attractiveness, etc."
BODY-IMAGE AND THE SELF

It was noted earlier that Fisher and Cleveland had claimed that no personality theory had incorporated body-image as part of their total theoretical scheme. In a similar manner, Manganyi (1970) has pointed out that theorists such as Schilder, Allport and James, who concerned themselves with body-image, failed to incorporate their theories of body-image into a broader concept of personality. Manganyi (1970: 24), therefore, sees the work of Bahnson as being of great relevance. For a detailed study of various theorists and their contribution to the concept of body-image Manganyi (1970) is recommended.

Bahnson's Concept of the Self and Body-Image

In an attempt to facilitate some degree of orientation within the multiplicity of overlapping and contrapuntal self and body images, Bahnson (1969: 264-267) could be considered a pioneer. He proposed two models in an attempt to do this. His first model (Figure 2 overleaf) represented the breaking down of self-experience within a three-dimensional space.

One dimension moves from unconscious to pre-conscious to fully conscious experiences of the self. Bahnson hypothesizes, therefore, that self-experience may be
unconscious. He also, in line with ego psychological thinking, believes that certain conscious self-experiences serve as defences against threatening unconscious images.

The second dimension, employing psycho-analytic developmental phases as guideposts, depicts the genetic level of development to which a particular self-representation belongs. As in the case with psycho-analytic theory, one would expect that early developmental images would be characterized by oral intake and dependency.

The third dimension depicts a continuum from conative self-experiences which are directly related to drive tension or drive discharge, to cognitive and reflective experiences of the self. This third dimension, Bahnsen tells us, also expresses a continuum from the physical to abstract-behavioural aspects of self-representation, spanning from isolated representations of body parts or their functions (which are closely related to the earliest experiences of drive states), through images related to social interaction, to fully abstract representations of the self and its functions.

Bahnsen sees self-concept, in its classical sense, as being relevant to one particular corner of the three-dimensional space encompassed by this model. The relevant area being the area of the model characterized by full consciousness, high developmental level, and the behavioural-abstract cognitive orientation. Body-image, on the other hand, is seen as representing the three-dimensional area characterized by the unconscious, early development and the physical-conative referent of the self.

The delta axis in Figure 2, which is directed into the three-dimensional space, indicates a possible developmental time dimension of changing self-concepts for a person. Bahnsen sees it as being possible that the qualitative aspects of the developing self-image of any given person
may be characterized by the relative positions obtained on the three axes. This means that the exact angle at which a person's delta projection travels into the figure can adequately describe his unique self-image.

Bahnson's second model (Figure 3 below) attempts to

DEVELOPMENTAL PHASES OF THE SELF IMAGE

SOMATIC SELF
Prenatal 1 yr.

SELF DIFFERENTIATION
FROM ENVIRONMENT
1-3 yrs.

OEDIPUS, FAMILY, ROLE TAKING,
EXTERNALLY DERIVED SELF-
IMAGE. 4-10 yrs.

PUBERTY, REVIVAL OF
BODY IMAGE, 11-14 yrs.

REDEFINITION OF
SOCIAL ROLES, 15-18 yrs.

ADULT INVESTMENT IN SOCIETY,
SYMBOLS, ABSTRACTIONS,
FAMILY OF PROCREATION.

Figure 3

demonstrate that the phenomenological "selves" are frequently superimposed on each other in much the same way in which an onion is layered. This model also attempts to demonstrate that the different qualities of the self or body-images are linked to particular developmental levels, by so doing specifying the conditions for two of the dimensions of Bahnson's first model (Figure 2, page 32).

According to Bahnson, the multi-layered and complex self-images of the adult at the bottom of Figure 3, consist of the sequentially accumulated images produced during successive phases of psycho-sexual development of an individual. The first self-images, formed within the mother-child symbiosis, are pre-verbal, pre-cognitive and somatic. After mastery of, and differentiation from the environment, the first cognitive self-experiences emerge. During the following pre-teen years internalized familial images are produced. It is during this stage that the oedipal conflict, and its resolution, takes place. During adolescence revived body-images are superimposed and integrated with roles related to extra familial environment. Lastly, in adulthood, additional self-images are formed in relation to the cathected objects or processes in the environment.

Bahnson points out that, although all these layers are latent
in the adult, only a few may be consciously available. He sees those layers which are consciously available as possibly serving in a defensive capacity by encapsulating and buffering underlying images. It is possible, however, that, under stress, the genetic layering may break down, resulting in the emergence of covert self-images, associated with previous developmental levels, into consciousness or pre-consciousness. If this occurs, the structural balance will be upset.

It should be noted that in this developmental formulation of self-images, Bahnsen sees the initial appearance and the dominance of body-image as being assigned to two development stages. The first occurs during the earliest years of life, a phase which is characterised by somatic dependency on the mother. The second stage is one in which somatic revival takes place. This stage, Bahnsen hypothesizes, falls during puberty - a time when the internalized defences, which were formed during latency, are pushed aside by renewed, but differently organized, sexual sensitization.

The Importance of Body-Image

Bearing in mind Bahnsen's theory and his assignment of the dominance of body-image to two developmental stages, it becomes necessary to investigate the importance of body-
image in general and particularly where it concerns children in the developmental stages that are not regarded as significant in terms of dominance of body-image.

Secord and Jourard (1953) hypothesized a positive relation between the ratings of body satisfaction and overall levels of self-esteem. Their findings were consistent with those of the positions of Symonds (1951), who saw the body as the central self-value component, and of Stagner (1961) who stated that self-image is first and above all a body-image.

Certain features of one's own body are unalterable, uncontrollable - in a unique way they are oneself. Sudden exposure of them or lack of control of them, or awareness of the difference between the way one sees one's own body and the way others see it - all these experiences of shame are seen (Lynd, 1958: 137) as being deeply associated with the quick of oneself; with one's own identity.

This means that, as in all perception, this inescapable intimacy with one's body is a two-way interchange, an interaction of the internal and external; tactile and other body impressions are shaped by contact with objects as impressions of the external world are derived from bodily sensations.

We see, then, that body-image is in part a social phenomenon.
One's body-image helps to shape one's image of the world, and one's image of the world affects the image one has of one's body - both parts of the process being mutually essential.

Further evidence of the importance of body-images can be seen in the success of diet books, the popularity of wigs, dyes, cosmetics and body-building exercises, all of which suggest that physical attractiveness is important for many people. There is much evidence to support that satisfaction with one's body is related to self-evaluation (Jourard and Secord, 1954) and that being shorter, taller, fatter or thinner than average is related to low self-esteem for men (Gunderson, 1965). More evidence comes from Berscheid and Walster (1974) who show that a widely held stereotype of our culture involves physical attractiveness. Attractive individuals are assumed to possess more sociably desirable personality traits and are expected to lead better lives than their unattractive counterparts.

Snyder, Tanke and Berscheid (1977) state that even as early as nursery school age, physical attractiveness appears to channel social interaction and they indicate that the physically attractive are chosen, and the physically unattractive are rejected, in sociometric choices.

Berscheid and Walster (in Riese, 1975: 8) investigated the
reactions of nursery school children, aged from four to six years, to classmates who had been adjudged as either "attractive" or "unattractive" by adults. The results showed that those boys who had been prejudged as "unattractive" were the least liked. Similarly, the girls prejudged "unattractive" were least liked - the exception being that they were most liked by the younger children. The "unattractive" boys were described as being more aggressive, antisocial than their "attractive" counterparts. Whilst the "unattractive" girls were seen as less independent, more afraid and scaring than their "attractive" classmates.

Mullener and Laird (1971) suggest that between the ages of twelve and twenty-nine years, self-evaluations become increasingly more differentiated and less global.

Montemajor and Eisen (1977) extended these findings and hypothesized that with increasing age, an individual's self-concept becomes more abstract and less concrete in that a decrease occurred for self-conceptions, by children, based on territoriality, citizenship, possessions, resources and physical self.

They hypothesized that an individual's increasing ability to think abstractly, not only results in the greater use of psychological and abstract constructs to describe others, but also a correspondingly greater use of these constructs to describe the self. This hypothesis was
reinforced by the fact that social psychologists consider the knowledge that an individual acquires about himself and others to be the result of interaction.

Mullener and Laird's and Montemajor and Eisen's findings reflect that self-concept development shows a sequence of development that parallels the sequence found for the development of person perception. Their findings support the general hypothesis - including that of Bahnson with his conative-cognitive dimension - that, with increasing age, an individual's self-concept becomes more abstract and less concrete.

At first glance, it would appear that Mullener and Laird's, Montemajor and Eisen's findings, as well as Bahnson's self-concept model comprising, amongst others, a conative-cognitive dimension, clash with the findings of Berscheid and Walster, Secord and Jourard, Lynd, Gunderson, Jourard and Secord, Snyder, Tanker and Berscheid etc., who attest to the importance of the impact of the physical in more than, for example, just the two stages as hypothesized by Bahnson. On reflection, however, it would seem that this is not the case since Mullener and Laird, as well as Montemajor and Eisen's findings only indicate a decrease in a concrete mode of representation in favour of a more abstract mode. This same argument can be applied to Bahnson's dimension conative (physical) - cognitive. In
his discussion on an individual's delta projection which indicates a unique self-image of the individual, Bahnsen explains that the delta is determined by the relative position to the three axes - the conative-cognitive axis being one of them. What this means is simply that, although Bahnsen sees body-image as being dominant at only two developmental levels, he does not exclude body-image from becoming dominant during other developmental stages.

These considerations weigh strongly in favour of the hypothesis that body-image plays an important role in self-concept. The writer is of the opinion, therefore, that physical characteristics may play a significant part in self-evaluation and that any research in the area of self-concept should take the "real" characteristics of persons into account.

According to McGuire, McGuire, Child and Fujioka (1978), the distinctiveness postulate implies that we notice in ourselves those aspects that are peculiar in our social milieu. One's hair colour becomes part of one's self-concept to the extent that it is peculiar to one's social environment (e.g. in Sweden a brunette would be peculiar whereas in Portugal a blond would be peculiar). Distinctiveness probably effects the self-concept both directly and indirectly; directly by our noticing our own distinctiveness, and indirectly by others perceiving and
responding to us in terms of our peculiarities.

It is hypothesized that distinctiveness may induce a given characteristic to become salient in the self-concept. The importance of this point will be expanded on later.

It should be noted, at this stage, that this writer does not entirely agree with the manner in which many writers treat the distinctiveness postulate. It has become customary for most writers to treat ethnic groups and others of physical distinctiveness (e.g. physically handicapped) as belonging to the same or similar type of outgroup (Chesler, 1965; Tenny, quoted in Riese, 1975: 6).

This practice of seeing ethnic groups and physically distinct persons* as belonging to the same, or similar, group or outgroup, is, it is held, due to the failure of investigators to take into account phenomenological considerations. In seeing these two "groups", each easily identifiable by physical characteristics, as being similar, a mistake is made by approaching investigations purely from

*Although an ethnic difference is, of course, also a physical difference, the term "physical difference" or "physically distinct person" is used to denote physical difference or a physically distinct person to whom the term "abnormal" would be applied.
the point of view of what is called an "in-group". Should we approach the problem, bearing in mind the viewpoint of the outgroup, definite and important differences between these two groups emerge.

Firstly, "a member of an ethnic group" clearly sees himself as belonging to his ethnic group (an ethnic group need not, of course, be an "outgroup"). By comparison, a physically distinct person, to use our example a physically handicapped person, would not see himself as belonging to a group called "the physically handicapped" - as a result he does not feel disqualified from belonging to the larger group which investigators label as his outgroup. In other words, the physically distinct person does not see his physical peculiarity as separating him from others with an ordinary physique. Secondly, and following the above, a member of an ethnic group can, because of his associating himself with his ethnic group - his "belongingness" - see his membership of his particular group as being a source of pride. This is reflected by slogans such as "Black is beautiful" and the upsurge, all over the world, in ethnic consciousness (whether this is seen as a reaction to prejudice on the part of others, or not, does not alter the position). Similar statements of pride and feelings of "belongingness" are not generally found amongst persons who are, otherwise than ethnically, physically distinct.
Closely allied to the distinctiveness postulate is the question of identity. Whenever strangers meet, the first thing they do is ascertain one another's identity and status. This is seen as essential as there is no other way of knowing what to anticipate (Shibutani, 1961: 220; Schneider, 1976: 347). This means that personal identity is one's only tie with the rest of society. A person only has status in a community insofar as he can identify himself as a specific being, belonging in a particular place.

Similarly, the community establishes the means of categorizing persons together with the complement of attributes felt to be ordinary and natural for members of these categories. Social settings, then, establish the categories of persons likely to be encountered there (Goffmann, 1963: 11-12). Our categorization of persons, with the accompanying normative expectations, enables us to deal with anticipated others without any special attention. This categorization is aided by the distinctiveness postulate in terms of which individuals are identified by physical characteristics, or distinctiveness, as this solves the problem of categorizing people in terms of less obvious and more fluid interpersonal categories such as social class (Chesler, 1965).

It would seem, then, that the importance of physical
peculiarities, through the operation of the distinctiveness postulate, highlights, once again, the importance of body-image in our society and, as a result, in the formation and development of self-concept.

A last, yet important, point must be made regarding the physically distinct and ethnically distinct groups. It is that people are more likely to think of others' characteristics, for example, ethnicity, as something they are not, than of their own ethnicity as something they are (McGuire, McGuire, Child and Fujioka, 1978). The significance of this will become evident in the discussion on salience in Chapter 3.
CHAPTER 3

STIGMA AND HANDICAP

INTRODUCTION

When dealing in an area concerned with people classified as being physically distinct, one enters a semantic minefield. A glance at the literature will reveal that writers have mainly concerned themselves with the "physically disabled" and "physically handicapped" or, more simply, the "disabled" and "handicapped". Unfortunately, most writers use these terms, incorrectly, as if they were interchangeable. The difference between these terms will be made clear shortly. A notable exception is Goffman (1963) who uses the terms "stigma", "discredited" and "discreditable" to refer to, amongst others, the categories of people mentioned above.

As this study deals with burned children, who may, or may not be disabled, and the fact that the study relies, for its theoretical background, on theories and theorists who use these terms, it is necessary to orientate it in the semantic minefield.
DEFINITIONS

A number of definitions will help make the distinction between handicap and disability clear. Wright (1960: 8) defines handicap as:

"A deviation from a normal standard, deviation from a state that is natural and average."

Here, the importance of others, or society, is introduced - even if only from a passive point of view. This becomes evident when considering that handicap, as a concept, relies for its existence on evaluation within a relevant society. For, without comparison and evaluation, the concept of 'handicap' cannot exist.

Shakespeare (1975) (quoted in Madden 1977: 6) takes this point further when she states that handicap should always be seen in the context of society. She (Shakespeare) states that society becomes relevant from the moment a child is born; or from when the handicap is noticed, resulting in some need in the parents to explain and justify it.

In a similar fashion, but attributing a more active role to others than does Wright, Nel (1967: 3) defines handicap as:

"A disturbance of the entire dialogue of the
child with his world, as well as an impediment to the establishment of his world."

A more important definition, for the purpose of illustration, is Wright's (1960: 8) second definition which sees a handicap as:

"The cumulative result of the obstacles which disability interposes between the individual and his maximum functioning."

Here, Wright gets to the very heart of the matter by putting the terms "disability" and "handicap" into perspective.

A physical disability is something which may cause a handicap. On the other hand, however, such a disability need not necessarily lead, automatically, to handicap. For example, a physical shortcoming, such as the lack of a toe, whilst it may be dis-abling in terms of a slight loss of balance, would not be a handicap (here it is assumed that loss of balance would be minimal). Neither would such a person be seen as a member of an outgroup as a result of his defect even though, technically speaking in terms of Wright's first definition, he would be handicapped. This is, of course, not the case considering Wright's second and Nel's definition.

Equally a person may be handicapped but not disabled. Shakespeare's (in Madden, 1977: 6) inclusion of ethnic
groups, etc. into her definition of handicap is indicative of this, for example a Negro cannot be considered 'handicapped' in the everyday sense of the word. Few would argue that a Negro is not disadvantaged socially, economically, etc., but it is held that to use the term 'handicapped' is inappropriate as it causes confusion. To say a person is 'handicapped' is meaningless as it does not tell us if he is e.g. socially disadvantaged or handicapped by some physical disability.

The term "handicap" then, has become practically useless as a descriptive term. Goffman (1963) re-introduced the term "stigma" and introduced the terms "discredited" and "discreditable" for use in, amongst others, discourse concerning the physically handicapped. These terms will help put into perspective what is meant when referring to terms in more general use.

A stigmatizing attribute can be seen as either discrediting or discreditable. A discredited individual is one whose stigma is known or evident, while the discreditable individual's stigma is not immediately perceivable or known. As this study deals with children with various degrees of disfigurement due to being burned, it deals with discredited persons.* What is of concern, then, is not a

*Although subjects for this research were selected due to their belonging to the discredited category, some subjects could, and did, hide their burn contractures with high necklines on dresses, long trousers, etc. An extreme case was a girl, badly burned about the head, who never took off her skullcap.
physical handicap, or disability, but a social handicap - a stigma.

This study will use the term "physical handicap" when referring to a physical disability and "handicap" or "handicapped" when referring to someone Goffman would see as stigmatized. In other words, the term "handicapped" should not be seen as indicating a physical defect or disability; but should be seen as a social handicap.

THE EFFECTS OF PHYSICAL HANDICAP ON THE SELF & OTHERS

Having briefly discussed stigma and social handicap, it may be instructive to give a few examples of the effect a person's physical handicap will have on others and himself. No attempt will be made to catalogue all factors as this would, obviously, be impossible. The few factors discussed should not be deemed to be the most important factors in operation, but are merely presented as examples to give greater insight into the impact a physical handicap may have.

Experiments have shown (Schneider, 1976: 151) that people are held responsible for actions they neither intended nor exerted effort to cause, and in some cases, could not have caused, but are merely associated with. It is, therefore,
not surprising to find that an individual's physical handicap is often seen as the cause of behaviour. This problem of attribution can, for example, have the effect that if a physically handicapped person makes a mistake, it is at once ascribed to his disability (Gill, 1966: 105), whereas had the mistake been made by some other person, it would have been put down to laziness or carelessness.

Meyerson (in Riese, 1975: 3-4) gives further illustrations of this phenomenon. Goebbels, for example, was "explained" in terms of his club-foot. Edison has been "explained" in terms of his deafness. Similarly, Roosevelt was seen as achieving his greatness as some kind of compensation for his being a polio victim.

What we do not understand, we fear. As a result we attempt to create patterns of stereotyped people (Glanville, 1966: 78; Goffman, 1959: 13). This trend towards conformity is interfered with by physical abnormality. The handicapped person does not "fit" and creates a certain amount of unease when being confronted by a physically normal person. As a result, the physically handicapped are stereotyped.

It has, unfortunately, become all too common, as pointed out by Tenny (in Riese, 1975: 6) for books and films to use some form of physical peculiarity to signify evil or
bad. For example, we are familiar with the sound of someone dragging a lame foot inexorably closer, invariably at midnight, full moon, wind howling and curtains flapping. This writer's tool, or technique, is used in much the same way that certain personal names are used for characters; some names are associated with the puny and the weak, whilst others are associated with the strong and heroic. It seems common practice to use physical deformity or oddity as a kind of uniform for villains - a limp, a lisp, or a scar have become as much a part of the 'baddie' as was the black hat and guns of the gunslinger. One cannot help but gain the impression that should those enforcing the law lock up all the persons with the characteristics mentioned above, especially their leaders, who are easily identified by their propensity to glide around in wheelchairs, the crime problem would be solved.

Ford (1966: 31) and Gill (1966: 105-106) report that many people seem to be of the opinion that physical handicap can be associated with some kind of mental incapacity. Bowley and Gardner (1972: 197) concur when they say that a handicap is assumed to extend to all aspects of personality and also to affect all aspects of behaviour. The cause of such misconceptions is not easily explained. Undoubtedly, ignorance plays a large role, but it should be noticed that many special institutions are for both the physically and the mentally handicapped. It would be
naive to think that such a pairing, by professionals, would go unnoticed by the lay public.

Further, and with reference to the distinctiveness postulate (see pages 41-42), when confronted with a person who is out of the ordinary, in a manner for which he is not prepared, the average person is uncertain of how to react and as a result tends to be gauche. A common reaction would be to stare, giving the unintended impression of being rude. What follows, more often than not, is an unnatural, too-quick looking away (Goffman, 1963; Clore and Jeffrey, 1972). The end result is, in many cases, a vicious circle of hypersensitivity (Ford, 1966: 38).

There is also a tendency for a physically handicapped person to be regarded as an outsider and for some people to display patronizing attitudes towards him (Madden, 1977: 38). He may also become the subject of disparaging jokes at the expense of his physical handicap (Madden, 1977: 38; Tenny, in Riese, 1975: 6).

These are but a few factors which can be seen as being directly related to body-image and the distinctiveness postulate, and which can be seen as adding to the self-concept of a physically handicapped person.

As a result of factors, such as those mentioned above, it
has been found by writers (e.g. Bowley and Gardner, 1972; Dissinger and Arnold, 1975; Ross, 1976; and Taylor, 1959) that children, who are physically handicapped, differ from children without such a stigma in characteristics such as tension and anxiety, confidence, frustration, emotional stability and social immaturity.

It is interesting to note, here, that Goodenough (in Van Niekerk, 1972: 144) sees self-confidence as being anchored in the lack of focus on the self - in fact as being the very antithesis of self-consciousness. Self-consciousness being seen as the result of insecurity. Children, according to Goodenough, are often unsure of the attitudes of others and, as a consequence, are unsure of what is expected of them, and whether they will be able to meet these demands. In circumstances such as those already discussed, a physically handicapped person may turn away from his outer-world to his inner-self (i.e. self-consciousness). Some experimental support for this hypothesis has been found (Davis and Brock, 1975; Carver and Scheier, 1978; and Duval and Wicklund, 1973).

In summarizing, it may be said that there would appear to be general agreement amongst writers that one of the major problems, if not the major problem, facing the physically handicapped, is one of social interaction and acceptance.
IDEAL AND REAL-SELF DISPARITY

As has been stressed, the body forms an extremely important part of the self (see chapter on body-concept).

The body can be seen as the meeting-ground of psychology and physiology. A person not only acts with his body, but his actions will also affect his body. A person observes and evaluates his body, as he knows it, and determines for himself a body-image. Others, as has been noted, react to a person's physical presentation and these reactions have a strong influence on the person's feelings about his body.

All societies and cultures have idiosyncratic ideas and standards for the ideal body (Riese, 1975: 1-4; Van Niekerk, 1972: 115).

We have seen that an individual is acted upon by his environment and that specific effects of the environment are mediated by his interpretation of them and how he thinks they are meaningful to him (Chapter 1).

In terms of the interactionist perspective, the environment or other people form the social self. The social self, therefore, is that part of experience, and material aspects of the self, which are open to the evaluation of others.
This social self is seen by Cooley in terms of the looking-glass self, i.e. a reflection of the feelings and attitudes of others. Mead further enshrined the notion of socialization and internalization. He saw the self growing primarily through the incorporation of the evaluations of others. Mead also introduced the concept of the "generalized other", in which the individual experiences the self, not directly, but from a viewpoint of other people, or, to use Sullivan's terminology, "significant others".

This process of forming the self has been illustrated in Figure 1 (page 24).

It becomes obvious, then, that a society's norms regarding the ideal body have consequences for a person living within that society, as the societal norms, through socialization and internalization, become personal norms.

The role that socialization and internalization play in the formulation of self-image disparity of a discredited person can now be examined against the background of what has been said.

Two factors can be seen as contributing towards any real-ideal-self disparity a discredited individual may have. Firstly, socialization provides for the internalization of
society's values and norms - including norms regarding physical attractiveness. Secondly, society presents the discredited individual with cues, both overt and covert, that he is abnormal vis-a-vis its standards. Some of these cues have already been discussed (see pages 50-53). Bearing in mind Figure 1, this process can be illustrated (Figure 4 below) by way of a composite diagram.

Figure 4

The last paragraph raises the question of whether a discredited person would, or would not, irrespective of the norms of and the feedback from "generalized others", experience ideal-real-self disparity?

Schneider (1976: 335), commenting on the treatment of the self as a grouping of attributes, and therefore self-esteem as the total of evaluations of separate attributes, points out that there are at least two difficulties inherent in this approach. Firstly, the fact that in time one may
learn to accept what one is - both the good and the bad. In this regard, Schneider sees self-acceptance as being a primary mark of maturity - with self-acceptance, people are seen to evaluate themselves against their strengths rather than their weaknesses.

Secondly, self-esteem may reflect how far one's self-evaluations are from some standard or ideal. In a society with its ideals and norms, approval is very often dependent on how close one comes to these ideals and norms. He says it would not be surprising, in such a situation, if people were unhappy with themselves to the extent that they failed to reach an ideal or norm.

What Schneider is saying is that it is unlikely that self-esteem can be treated as being a total of evaluations of separate attributes as a person is likely to be selective in choosing the attributes that will affect self-esteem.

There is evidence, however, that high denial discrepancies increase with age among children (Zigler, Balla and Watson, 1972) and with cognitive maturity (Katz and Zigler, 1967).

In addition, Achenbach and Zigier (1963), employing developmental theory, found that real-ideal-disparity was positively related to the individual's level of maturity. This leads Schneider (1976: 336) to hypothesize that the mature person
adjusts his or her ideals and self-evaluations to achieve a moderate discrepancy somewhere between the extremes of smug satisfaction and debilitating dissatisfaction.

Katz and Zigler (1967) present an interpretation of ideal-real-self disparity which represents a qualification of the Rogerian thesis that self-image disparity is a general indicator of maladjustment. They point out that a number of investigators have advanced evidence that, while a large self-ideal discrepancy is invariably ominous, it would be found only among individuals employing particular psychological defences, for example, sensitizers and psychoneurotics (Altrocchi, Parsons and Dickhoff, 1960). Within this position, maladjusted persons employing other modes of defence, such as denial, would be expected to show little self-ideal disparity.

The answer to the question of whether or not a discredited individual will experience ideal-real-self disparity would depend, then, on his ability to successfully manage the threat to his self-esteem. This, in turn, would depend on factors such as the type of defences used (Altrocchi, Parsons and Dickhoff, 1960), as well as the degree that Schneider's (1976), Achenbach and Zigler's (1963), etc. theories regarding ideal-real-self disparity are in operation.

Having identified some sources of dissonance or discordance
in the discredited person's self-concept, it is possible to put forward some hypotheses regarding the coping mechanisms employed by such a person in an attempt to manage information which is threatening to self-esteem.

**COPING AND COPING MECHANISMS**

**Introduction**

Zeitlin (1980: 139) defines coping as an active, adaptive process of using strategies to manage one's world. It is seen as the behaviour that children learn from the interaction of their development, temperament, experience, areas of vulnerability, and the demands of the environment.

It is believed that coping mechanisms form a continuum with no cut-off point between what is regarded as normal or abnormal behaviour. Zeitlin (1980: 139) sees coping effectiveness as being assessed on a continuum from adaptive to maladaptive. Adaptive coping behaviour is seen as behaviour that is appropriate to the environment or situation and/or enhances efforts to care for oneself. Maladaptive behaviour, on the other hand, is seen as behaviour which interferes with new learning, increases vulnerability, and may generate excessive stress. Similarly, Sullivan (in Ziller, 1973: 137) sees self-esteem as a dynamism which
develops in an effort to control anxiety. He sees an individual developing various protective measures and supervisory control over his behaviour in an attempt to control anxiety. In cognitive terms then, the self-system is a mediating mechanism which transforms inputs in such a way as to be minimally disrupting. Sullivan points out, however, that while the controls maintain security or reduce anxiety, there is a tendency for the self-system to interfere with a person's ability to live constructively with others.

Coping mechanisms or "conflict control mechanisms", as Sullivan calls them, should not, in view of what has been said, be seen as being the same as defence mechanisms in the psychodynamic sense. This is so because defence mechanisms (in psychodynamic sense) are invariably seen as being of a pathological nature, whereas coping mechanisms should be seen as a natural attempt to reduce anxiety, tension or a threat to self-esteem. It is only when coping mechanisms are maladaptive and interfere with a person's ability to live with others, that they should be seen as pathological.

The Discredited Person and Coping

Empirical evidence (Rogers, Kuiper and Kirker, 1977) supports the hypothesis that the self is an extremely active and
powerful agent in the organization of a person's world. Self-reference serves a meaningful function in the processing of certain kinds of information. The self is seen as having developed to aid a person in keeping track of vast amounts of relevant information encountered over a lifetime.

The central aspect of self-reference is that the self acts as a background, or setting, against which incoming data are interpreted or coded. This process involves an interaction between the experience of an individual and the incoming material.

The key lies in the use of the term "self-relevant". Rogers, Kuiper and Kirker expand on this when they point out that the terms of the self are organized in a hierarchical fashion, with the most central traits represented initially. The most important thing to note here, however, is that the initial trait would not necessarily be a person's most extreme one, followed by the second most extreme trait, and so on until all meaningful traits were exhausted. What this means is that the salience of a particular trait for the person concerned also adds to the organization of the self.

Support for this view comes from Markus (1977) who stated that the important thing to note was that the traits involved in a person's self are not necessarily the most
extreme ones; but that the self represented a mix of salience and extremity.

It is held that a discredited person's coping manoeuvres should be seen to comprise two distinct stages. The first stage involves the attempt to come to terms with, in the case of this study, physical disfigurement. As body-image concerns all, irrespective of whether an actual, marked physical difference is involved or not, it could be hypothesized that the coping mechanisms employed by both the physically "normal" and the discredited would be the same. This would, basically, involve the adjustment of ideals and self-evaluation so as to achieve what Schneider (1976: 335) calls maturity. This state of self-acceptance can be attained by making certain aspects of the physical self non-salient.

The second stage involves the maintenance of the self-esteem, attained through self-acceptance, which was attained in stage 1. In this stage, self-esteem is threatened by the individual perceiving what he deems to be inappropriate responses by others - others who play an extremely important role in the formation of self-esteem (Gergen and Wishnov, 1965; Snyder, Tanke and Berscheid, 1977). Some responses and their sources have already been discussed (pages 50-53).

Stage 2 is facilitated by the fact that self-conceptions may
extend beyond the confines of an organism. Shibutani (1961: 221) informs us that in every person there is a bipolarization of experience into what is regarded as being outside of himself and what is regarded as being part of himself. He points out that there is no necessary spatial or temporal coincidence between the boundaries of a person's conception of himself and the actual limits of his body.

This has far-reaching ramifications for it means that a person's self-concept is construed through selective attention and phantasy. The use of the word "phantasy", in the present context, derives via psychoanalysis, from the writing of Gill (1966: 101) who states that very often disabled persons, when dreaming, "see" themselves as being physically normal. Further evidence for this comes from Goffman (1961: 131) who cites the case of amputees who often express disaffiliation from the position they find themselves in.

The fact that no necessary spatial or temporal coincidence exists between the boundaries of a person's conception of himself and the actual limits of his physical state, presents the physically discredited person with a mechanism for the "denial" of his physical state. That this kind of denial*

*The term "denial" is used by many writers, such as Goffman and Gill. Since this term has pathological undertones, this writer does not see it as being entirely suitable, in the context it is generally used (i.e. selective attention, lack of focus, etc.). Despite this, however, the term will be used, following the literature.
is common can be construed from Gill's statement regarding dreams. As a result of this denial, the physically discredited individual will, at times, regard the responses of others as inappropriate and a threat to self-esteem, as his identity is not being reinforced by social interaction.

An individual's conception of himself, then, although undeniably associated with his body (pages 26-41), is not a direct reflection of what he is or what he does. As a result, self-conceptions, like the rest of the symbolic environment, are construed through selective perception and imagination.

Individuals may be assisted somewhat in their attempts at denial through deferential avoidance by others. Deferential avoidance is the verbal care that others feel they are obliged to exercise so as not to bring into discussions any matters which they believe would be painful, embarrassing or humiliating to the recipient.

It is believed that it is of no consequence whether we accept Schneider's (1976: 336) model of ideal-real-self disparity, which states that dissonance is an indicator of lack of maturity, or those of Achenbach and Zigler (1963), and Katz and Zigler (1967) who state that disparity should be seen as being positively related to chronological age and I.Q. due to a higher level of cognition. In both
cases, information generated through interaction could hinder maturity - seen here as self-liking or self-acceptance.

In stage 2, then, we have the situation where the discredited individual is placed in a position where, assuming that he has made the adjustment hypothesized as taking place in stage 1, he has to cope with both covert and overt information from others that is not congruent with his self-concept. It is hypothesized that this is achieved through some process of selective attention and/or misinterpretation. This process is seen as a kind of "screening" mechanism by way of which information, potentially threatening to self-esteem is screened and filtered out in a manner so as to prevent harm to self-esteem. This hypothesized process is illustrated in Figure 5 below.

![Figure 5](image_url)
The hypothesized screening process meshes with Sullivan's definition of the self as being a mediating mechanism which transforms inputs in such a way as to be minimally disrupting (page 61). Of particular interest here is Sullivan's conflict control mechanism called "focal-awareness". This control mechanism is similar to the proposed screening process. It operates by the person (through the self-system) restricting the range of stimuli to which he is responsive in an attempt to avoid anxiety and to establish equilibrium or consistency. Personal integration is maintained, then, through exclusion.
INTRODUCTION

Development of self-concept depends, to a large extent, on the degree to which a child has experienced success, as well as on how frequently failure has formed a part of early development. This means that the goals of the child, whether imposed by himself or by others, may effect self-concept. For example, should a goal be difficult, or impossible, to reach and it is not modified in such a manner as to make it attainable, the child will continue to fail and will eventually lose all faith in himself and in his ability to perform in an adequate manner.

The behavioural management approach to modifying young children's behaviour is based on the principles of social learning and associated concepts of behaviour development and change. The major concept underlying this approach, that of positive reinforcement, emphasises the positive, humanistic orientation of the approach (Bagg, 1975: 40). According to Gardner (1974), the major premise of this approach suggests that a child is more readily able to acquire a wide range of desired behavioural, emotional and
attitudinal patterns, in an environment which emphasises
the consequences of the desired behaviour, and which
restricts negative consequences to the minimum.

Approaches to behaviour change which derive from a learning
framework are grouped under the rubric of behaviour
modification (Bandura, 1969; Frank, 1969). Amongst these
approaches are approaches such as modelling, positive
reinforcement, negative reinforcement and desensitization,
etc.

Generally speaking, the behaviour modification approach
concerns the clinical goal of treatment (Watson, 1962).
Behaviour modification is defined as the application of
behaviour principles to training, and treatment of
problem behaviour (Bagg, 1975: 40), and is usually directed
towards a narrowly defined behaviour objective (Ziller,
1973: 51). It is important to bear in mind, however, as
Ziller (1973: 55) points out, that behaviour change
processes are seen to involve attitude changes, role
changes, and changes in self-concept, and therefore must
be viewed within the context of the personal change
system.

Bagg (1975: 40) notes that behaviour therapy would seem to
have appreciable potential as a reality-based intervention.
In support she quotes Clarizio and McCoy (1970) who briefly
summarized the goals of environmental modification. These are:

1. Guiding mental attitudes into socially acceptable channels.
2. The restoration of self-confidence and personal security.
3. The replacement of discouragement with encouragement.
4. The establishment of good work habits.
5. Increasing opportunities for socialization.
6. The learning of specific skills needed for work or school.

**SOCIAL LEARNING THEORY**

Social learning theory does not focus on instinctive drives, but on patterns of behaviour an individual learns in coping with the environment. The emphasis is thus on the reciprocal interaction between the environment and behaviour. Individuals are not only seen as not being driven by internal forces, but are also seen as not being merely passive reactors to external stimuli. The type of behaviour we display partially determines the reward or punishment we receive and this in turn influences and
modifies our behaviour.

Patterns of behaviour can be acquired through direct experience or by observing the behaviour of others. Some of the behaviour acquired in these ways may be a desired behaviour while other responses may produce behaviour that is not acceptable. Through the process of differential reinforcement (positive versus negative), however, the individual eventually selects the desired behaviour patterns and disregards the others.

Social learning theory departs from the strictly behaviouristic position by stressing the importance of cognitive processes*. Because we can think and represent situations symbolically, we are able to foresee the possible consequences of our actions and alter our behaviour accordingly. In other words, our actions are to a great extent

*The theoretical base for behaviourism is complex and confusing and by no means settled. Many of the problem issues stem from the failure by many behaviourists to clearly distinguish between radical behaviourism and conventional behaviourism which is dominated by logical positivism. Conventional behaviourists (even prominent Skinnerians) fail to concede that private events have any place in natural science. Skinner, in his radical behaviourism, states that the distinction between public and private knowledge is not the same as the distinction between the physical and the mental. Unlike conventional behaviourists, he sees a place for private events in his theory although he rejects mentalism. For an insight into Skinner's concepts of "private knowledge" and "mentalism", the reader is referred to Skinner (1953; 1957) and Day (1969).
governed by anticipated consequences. In addition, future consequences, represented symbolically in one's thoughts, can motivate behaviour in much the same way as actual consequences.

Social learning theory also stresses the importance of vicarious learning, that is, learning by observation. What this means is that behaviour can be learned by watching the behaviour of others and by observing the consequences of such behaviour for them. Besides behaviour, emotions can also be learned vicariously by watching others undergo pleasant or painful experiences. It is clear here that social learning theory emphasises the role of models in transmitting both behavioural and emotional responses.

Another emphasis of social learning theory is the importance of self-regulatory processes. Specific behaviour brings about specific external outcome as well as a self-evaluative reaction. People have their own standards of conduct or performance. As a result, each individual will respond to his behaviour in either a self-satisfied or self-critical manner - depending on how their behaviour measures up against their standards.

We see, then, that social learning theory envisages reinforcement coming from two sources: external and self-evaluative. At times, reinforcement operates from both
these sources at the same time, whereas at other times reinforcement may come from only one source or from both sources in a contradictory manner (e.g. external source offering positive reinforcement while the self-evaluative source presents negative reinforcement). The important role played by self-reproach is underlined by evidence that people often adhere to their standards of behaviour or conduct in the face of opposing (external) forces. It follows, needless to say, that external reinforcement will be most effective when it is consistent with self-reinforcement, i.e. when an individual shares the values and beliefs of the society in which he lives.

**MODELLING**

Modelling is a central concept in theories of social learning and socialization (Bandura, 1969 and 1971; Bandura and Walters, 1963).

Modelling has been referred to as imitation, learning, observational learning, vicarious learning, no-trial learning and matched dependent learning, in order to suggest the various aspects of modelling phenomena and to attempt to explain its mechanisms (Bagg, 1975: 51). Modelling involves the learner observing a model or teacher enact or perform a behaviour or skill.
The learner (child or adult) may, as a result of observing the model, imitate the actions or behaviour of the model. This does not mean, however, that mere exposure to a model will necessarily guarantee that the learner will imitate the behaviour observed. Variables such as motivation, previous experience in discriminatory observation, the distinctiveness of the modelling stimuli, the novelty or relevance of the modelling behaviour and the prestige/attractiveness of the model will all contribute to the extent that the learner observes the behaviour of the model. The rate, amount and complexity of the modelling stimuli will also influence the extent of the learner's imitation (Bandura, 1965).

It is important to note, however, that the modelling, or learning through imitation, process is not a function of reinforcement. Learning can, and does, take place without reinforcement. Bandura (1965) illustrated this by showing that children who had watched a model being rewarded, punished or ignored when behaving in a certain manner, were able to duplicate the model's behaviour equally well when offered an incentive to do so. In other words, even the children who had watched the model being punished had learned and were able to imitate the behaviour. It was also found that those children who had watched the model's behaviour punished, failed to imitate much of the model's behaviour when no incentive was offered to them to do so.
It appeared that in this case the children associated punishment with, and anticipated punishment for such behaviour. Bandura concluded that these findings showed that modelling is not influenced by reward or punishment, unlike the actual performance of what has been learned. Learning, therefore, is independent of action.

Bandura's distinction between learning and the actual performance of behaviour highlights the problem arising from social learning theorists, with their emphasis on the learning component, and behaviourists, with their emphasis purely on behaviour, who all claim modelling as their own. This matter is complicated further when the learning of a skill, e.g. riding a bicycle, is involved. Here behaviourists would simply ignore any cognitive aspect. On the other hand, as far as social learning is concerned, Bandura's distinction between the actual physical performance of an act and learning does not seem to be valid as learning could not take place without practise.

For our purposes, modelling will be seen to encompass both learning without physical action and learning with action. From here onwards, the term "modelling" will be used as defined above, while the term "imitation" will be used to describe action with no cognitive component, e.g. a child who imitates a person by gesticulating with two fingers.
- while having no idea of the symbolism involved.

There are three main effects of exposure to models (Bandura and Walters, 1963; Bandura, 1965). Firstly, the modelling effect. Through the modelling effect, an individual acquires responses which were not previously part of his behaviour. Secondly, the inhibitory effect. The inhibitory effect may either strengthen or weaken inhibiting responses which already exist. Lastly, the eliciting effect. The eliciting effect refers to responses that, either precisely or approximately, match the responses of the model. In this way, observation of, e.g. a teacher's response, will offer discriminative clues which will trigger similar responses already existing in the child's behaviour repertoire. We see, then, that the eliciting effect differs from both the modelling effect and the inhibiting effect in that the behaviour elicited is not new.

Bandura (1965) believes that modelling provides a more effective procedure for the acquisition of new behaviour patterns than does operant conditioning with its emphasis on positive reinforcement. Importantly, he also believes that behaviour acquired through modelling techniques can often be maintained without reinforcement as individuals are able to reinforce themselves (self-evaluation) for behaving in a certain way. In other words, behaviour will eventually become more and more intrinsically reinforcing
and less and less dependent on external reinforcement whether in the form of verbal praise or material gain.

As noted by Bagg (1975: 50), modelling, as an intervention technique, is based on the premise that children will imitate the behaviour of others. The relevance of this technique becomes obvious from the manner in which children's learning of social skills is most commonly acquired by their following the examples of socially approved behaviour of models. As previously mentioned, in the discussion of classical theorists, not all persons are of equal importance to a child. To be important, a person has to be what Sullivan called a "significant other" - someone for whom the child has respect and whose praise esteem he values. In this regard Allen (1974) points out that the most powerful determinant of a young child's behaviour is the attention of significant adults in the environment.

It follows, then, as stated by O'Connor (1973), that modelling is seen as the most direct, common-sense and effective way of teaching and demonstrating a behaviour, skill or some form of knowledge (i.e. learning without action) that is novel to the child. To these attributes O'Connor ascribes to modelling we can add Ganzer's (1974) comment that modelling procedures are effective as methods of altering behaviour not only for the impact they have on
the person at whom they are directed, but also for the ease with which they can be learned and applied.

Friedman (1971), quoting Bandura, Blanchard and Ritter (1969), Bandura, Grusec and Menlove (1967), Bandura and Menlove (1968), O'Connor (1969) and Ritter (1968 and 1969 (a) and (B)) have shown that recent research supports the idea that modelling is an effective tool for the changing of behaviour. In this regard Bagg (1975: 52) notes that with the exception of O'Connor, most of this research has been conducted on non-interpersonally orientated behaviour such as fear of animals, fear of heights, etc.

The lack of research in the realm of interpersonal behaviour on the part of modelling per se is not shared by a therapeutic technique closely allied to modelling - role-playing.

ROLE-PLAYING

Role-playing is a major derivative of psychodrama (Rabson, 1979: 80), and is essentially a process of "make-believe" (Corsini, 1966: 8). The role-playing process involves patient or client (as well as others if an interactional situation is concerned) enacting a role for a limited period of time as if the acted-out situation were real.
As the terms "role-playing" and "psychodrama" are often used incorrectly, as if they were interchangeable (Rabson, 1979: 75), it is necessary, at the outset, to briefly describe the distinction between the two. For this purpose the differences listed by Rabson (1979: 78-79) will be quoted. These differences are:

<table>
<thead>
<tr>
<th>Psychodrama</th>
<th>Role-Playing</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Systematic method of group therapy in its own right.</td>
<td>Specific technique usually within context of group therapy.</td>
</tr>
<tr>
<td>(3) Orientated towards in-depth personal exploration, catharsis, insight, problem-solving and behaviour change. Encourages expression of deep feelings.</td>
<td>Not oriented towards deep catharsis, or expression of deep emotions. Not a problem-solving method as such.</td>
</tr>
<tr>
<td>(4) Oriented towards redoing the past, or freeing persons from effects of previous traumatic situations, e.g. encourages active mastery of events previously passively responded to. May also deal with anticipated future.</td>
<td>Oriented towards future situations, and rehearsal of specific behavioural responses or approaches to anticipated situations. Ordinarily not directed to the past.</td>
</tr>
<tr>
<td>(5) Oriented towards personality and relationships.</td>
<td>Oriented towards specific behavioural problems. Concentrates on social skills, behavioural modification, practise and training for social interaction.</td>
</tr>
<tr>
<td>(6) Deals with effect of past on present behaviour and psychodynamic picture.</td>
<td>Usually concentrates on inter-personal interactive situations, and not on intrapsychic material,</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
intrapsychic as well as interpersonal problems.

(7) Deals directly with protagonist's personal life history and private problems. (Involves all levels of psychosomatic, psychological, psychodramatic and social roles.)

(8) Very direct method. May be exposing. Has built-in ways of dealing with exposure, and through warm-up and sharing diminishes any potentially threatening aspects. More indirect. May be less exposing. Initially less threatening in terms of individual defences.

From the above it becomes clear that role-playing is generally oriented towards specific behavioural problems and is more superficial than psychodrama and does not attempt to explore, or solve, in-depth psychosocial problems. Furthermore, psychodrama may encompass a broader range of problems than role-playing and may direct its attention to personality change, as well as deeper emotional contexts whereas role-playing largely restricts itself to behaviour change. Lastly, it becomes clear that role-playing, as a rule, comprises the enactment of social (or collective) rather than individual, private, psychological roles as does psychodrama.

According to Rabson (1979: 76), the format most commonly used in role-playing is one in which brief sketches, or unscripted scenes are enacted by a number of role players drawn from the
group. This is followed by a discussion, repetition of the enactment, while further discussion of the behavioural approach, or methods used, in dealing with the problem situation might also be used. Role-playing may be spontaneous with role players and situations arising from the group warm-up as in psychodrama; however, more often than not it is structured, with the situation to be enacted, as well as the roles and players, assigned by the group leader.

Role-playing is, then, essentially a group activity, and as such possesses the advantages of group psychotherapy. These are set out by Berzon, Pious and Parson (1963) and benefit the participants in that:

1. They are able to increase their awareness of their emotional dynamics in that they are helped to acquire new knowledge about themselves, their strengths and weaknesses, their patterns of interpersonal relations, their motivations, etc.

2. They are offered an opportunity to see that they are not alone with their problems - they come to realise that others, too, have similar problems.

3. They experience the feeling of positive regard, acceptance, and sympathy for others.

4. They are able to see themselves as others see them.
(5) They are in a position to express themselves congruently.

(6) They are able to witness the courage, honesty and expressions of emotion in others.

(7) They feel responded to by group members.

(8) They experience a within-group feeling of warmth and closeness.

(9) They are offered the opportunity to ventilate their emotions.

Not dissimilarly, Yalom (1975: 3-4) presents (1) instillation of hope, (2) universality, (3) imparting of information, (4) altruism, (5) the corrective recapitulation of the primary family group, (6) development of socializing techniques, (7) imitative behaviour, (8) interpersonal learning, (9) group cohesiveness, (10) catharsis and existential factors as being the curative factors in group therapy.

An important point that can be added to the above points is that in role-playing groups the participant has the chance to learn in the passive as well as the active modes (Corsini, 1966: 84). Here, when the participant is in the "audience", i.e. watching the other participants enact a role, he is learning in the passive mode, whereas, when he
is enacting a role himself, he is learning in the active mode. Learning passively is made possible because, as has been mentioned, group members have a great deal in common and, as a result, when a group member is role-playing, the role he plays will be readily understood and has considerable meaning to the other, passive, group members. It is clear that the benefit of such learning will be maximized when the role involves the successful handling of a common problem.

Another important aspect of role-playing is its potential as a diagnostic tool. This potential can be seen as being largely due to two of role-playing's attributes. Firstly, role-playing is seen as representing a real-life situation (Corsini, 1966: 80; Hare, 1976). Secondly, when someone plays a role, it is difficult to sustain a role other than that dictated by customary behaviour as would be found in everyday life. As a result, role-playing's capacity to simulate everyday life and "mirror" everyday behaviour, offers the group leader an excellent opportunity to view a role player's real-life behaviour. Role-playing, then, can be used to obtain information, not only about how a person operates in everyday life (his social personality), but also regarding how a person sees himself (self-perception). In this regard, Corsini (1966: 83) states that the information obtained from role-playing is probably more accurate than that obtained by other means since it is more
representative of real-life behaviour. Similarly, Borgatta (1951) has found that role-playing observations correlated more closely to real-life behaviour than did pen-and-paper techniques. Lastly, as far as diagnostics is concerned, Corsini (1966: vii) is of the opinion that role-playing can be used for diagnostic purposes as it offers an unparallelled procedure for a participant to see himself in action. Furthermore, the observer (group leader) is able to locate specific problem areas - enabling him to direct particular attention to those areas.

As regards the advantage that role-playing holds over modelling, there is evidence for the effectiveness of role-playing in the modification of interpersonal behaviour (Janis and Mann, 1965; Lazarus, 1966; Mann and Janis, 1968; Sarason, 1968; Wagner, 1968). Regarding children, specifically, it has been shown that role-playing is effective in: helping children deal with fear (Lippet, 1947); quickening social learning processes (Blake, 1955); improving social behaviour (Lippet, 1947); learning new social skills (Blake, 1955); improving interpersonal relationships (Lippet and Hubbell, 1956); developing sensitivity from experiencing and seeing the world from many different views (Blake, 1955); and achieving an understanding and acceptance of physical abnormalities in other children (Lippet, 1947).
Of especial importance to this study is Riessman's (1964) setting out of why role-playing is an appropriate and valuable tool to employ when working with lower socio-economic groups. The benefits of using role-playing when working with lower socio-economic groups are:

1. It is more congenial with the "style" of a person coming from a lower socio-economic group which is more inclined to action as compared to verbalisation;

2. The professional worker reduces role distance between himself and the disadvantaged person;

3. It changes the setting and tone of what often appears to a person from a lower socio-economic group as an office-ridden, impersonal, foreign procedure; and

4. It facilitates verbalization in the educationally deprived person.

The use of puppetry further enhances the power of role-playing as a technique for changing interpersonal behaviour in children. For a child, it is easier to project life into an inanimate figure compared to putting himself personally on display. Puppetry, further, offers boys a more socially acceptable way to "play with dolls" as well as enabling one gender to play with another. Lastly, the "shield" of the puppetry stage provides the shy child with the security of masking his real identity while
expressing his own thoughts and emotions.

SUMMARY AND CONCLUSION

As was the case with the previous chapters, this chapter has highlighted the importance of the role others play in the formation of the self and on behaviour patterns. It was shown that others have an important influence on an individual through behaviour modification, social learning and modelling. Role-playing is closely related to these processes.

Role-playing was seen to possess elements of behaviour modification, social learning as well as modelling. It was seen that role-playing was of especial value as a diagnostic tool and for the learning of handling social roles appropriately, due to it being an accurate reflection of real-life situations and behaviour. In addition, it was noted that role-playing was particularly suitable for use with lower socio-economic groups.

We are now ready to look more closely at burned children, their psycho-social adjustment, as well as the study's aims and hypotheses.
INTRODUCTION

The broad aim of this study is to investigate the role of physical distinctiveness, and stigma resulting therefrom, as a pertinent feature of self-concept, using the special case of burned children as the specific study.

A more specific aim is to explore, by means of a comparative study, the effectiveness of role-playing in improving the self-concept of burned children. To this end, the investigation will compare a treated group of burned children (burn treatment group) with a non-treated group of burned children (burn control group) and a group of matched, non-burned children (non-burn control group).

A more qualitative aim of the study is to gain a clear picture of the burned children in terms of both psychological and social features. To this end the literature on burns will be reviewed, and additional measurement indices will be used, namely aggression and body-image-disturbance as measured on the Draw-a-Person (D.A.P.) test and behaviour...
as measured by the Adaptation Questionnaire (for details see Chapter 6).

This chapter will begin with a review of burned children in terms of a burn profile, factors influencing adjustment, and modes of psychological intervention with particular regard to the D.U.S.O. Programme. It will then proceed to offer detailed aims and hypotheses.

BACKGROUND TO BURN PROFILE

Bowden, Jones and Feller's (1979) analysis of articles, published in English, between the years 1936 and 1978, on the psycho-social aspects of a severe burn reveals that only 49 articles (out of a total of 159) could be labelled empirical. They state that most of these articles had serious methodological flaws and conclude that most of what is known about the psycho-social adjustment of the severely burned can only be considered speculation. As a result, although this study cites findings such as those criticized by Bowden, Jones and Feller, they are considered the basis of hypotheses rather than as given facts.

The study has two main areas of investigation. Firstly, it seeks to establish a profile of a burned child, his self-concept, body-image and behaviour. Secondly, it investigates
the effect of role-playing on the self-concept, body-image and behaviour of the burned child.

THE BURN PROFILE

What we do know is that children under the age of five are most vulnerable to burns (Feck, Baptiste and Tate, 1978; Jensen, 1959; Williams, Bowman and Malare, 1979; De Kock, 1979). We also know that the incidence of burns is higher in more deprived families - usually reflected along racial lines in South Africa. It is important to remember, however, as has been pointed out by several authors, that the incidence of burns is reflective more of social and environmental than ethnic factors.

In this regard it has been noted that burned children are more likely to come from large families (Benians, 1944; Borland, 1967), have an absent parent (Borland, 1967; Galdston, 1972; Long and Cope, 1961), have housing difficulties, live in crowded situations or move frequently (Borland, 1967; Caudle and Potter, 1970; Williams, Bowman and Malare, 1958; De Kock, 1979; De Wet, Davies and Cywes, 1977). It follows then, not surprisingly, that burned children tend to come from families whose wage earner is an unskilled or semi-skilled worker (Feck, Baptiste and Tate, 1978; Benians, 1974; Jensen, 1959; Martin, 1970; Williams,
The first study on the outcome of burned children was done by Woodward (1959) in a retrospective interview with mothers of 198 children who had been burned two to five years previously. The children were under the age of 15 and had a total body burn area of 10% or more. She found that the mothers indicated that 81% of the children had some symptoms of emotional disturbance such as anxiety or somatic complaints, and that 21% of the mothers had considered the child's problems serious enough to seek help from a physician or child-guidance clinic. Vigliano, Hart and Singer (1964) concluded that nine out of 10 children they evaluated, through the use of psychological tests and interviews, had psychological disturbances severe enough to be referred to an out-patient clinic for treatment. They described children as being reluctant to talk about the reality of their disfigurement.

Martin (1970), studying the effects of separation, reported that of the 148 children, aged 7 months to 14 years, 40 were disturbed in behaviour three months after injury, and, at one year, 23 children continued to be disturbed. Regarding this, Giljohann (1981) reported that children, old enough to remember their hospitalization, spoke of the distress of separation.
Researchers (Jackson, 1974; Woodward and Jackson, 1961; Long and Cope, 1961) have found that children blame their parents, and sometimes siblings, for the burn accident and expressed resentment towards these persons. In some cases, this anger was displaced on to the medical staff, hampering treatment. It has also been found that children see the burn accident, their pain and suffering, as punishment for some imagined or actual wrong-doing (Jackson, 1974; Long and Cope, 1961; West and Shuck, 1978).

SUMMARY OF THE MAIN FINDINGS ON BURNED CHILDREN

(1) Children, especially under the age of five years, are most vulnerable to burns.

(2) The incidence of burns is higher in more deprived families.

(3) In cases of younger children, separation has been identified as being related to post-burn behaviour.

(4) Children are reluctant to talk about the reality of their disfigurement.

(5) Parents or siblings are often blamed by the burn victim for the accident.

(6) At times, anger felt towards parents and siblings, is displaced on to medical staff.
(7) Treatment is often seen as some form of punishment by burned children.

SOME FACTORS INFLUENCING ADJUSTMENT

No attempt will be made here to catalogue and discuss the many factors that may influence adjustment. An in-depth discussion in this area can be found in Bowden, Jones and Feller (1979). Rather, a few of the more commonly discussed factors will be briefly introduced. These are: age, gender, severity and type of burn, and time-lapse since burn.

Age

Woodward (1959) noted that children, under five years of age, seemed to have difficulty in adjusting after being burned. Martin (1970) reported that only those children who were over the age of seven, or who were outpatients, at the time of injury, did not have difficulty adjusting. Molinaro (1978) found that children who were burned prior to the age of ten had a greater degree of social withdrawal compared with children who were ten years and older at the time of the burn.

Woodward's (1959) findings are a confirmation of the findings
of Spitz (1945), Bowlby (1951), Robertson (1958), etc., who found that emotional disturbance resulted from separation of children under five years old. Martin's (1970) findings can be viewed in a similar fashion in that children over the age of seven had greater potential for coping with separation while her outpatients had no such need. Molinaro's (1978) findings, however, clash with those of Martin for reasons that cannot be ascertained.

Age may be seen as being relevant in two ways. It would appear that age at the time of burn injury may play a role in adjustment as it has been pointed out (Murray-Clarke and Martin, 1979; Giljohann, 1981) that children injured at an earlier age were less distressed by scarring than those injured during middle childhood, for the reason that the former had grown up with the scars being an integral part of their body and had no recollection of their pre-burn appearance.

The present age of the post-burn child is also important. It has been reported (De Wet, Cywes, Davies and Van der Riet, 1979; Giljohann, 1981; and Murray-Clarke and Martin, 1979) that the ages of 12 - 14 represent a period of great change and upheaval as this period of adolescence is normally associated with important physical changes. It may be recalled that it is at this developmental stage that Bahnson (1969) posited the revival of the dominance of body-image.
Closely linked to puberty and adolescence is the question of gender.

**Gender**

The sex of a burned child does not seem to play a role in adjustment (Bowden, Jones and Feller, 1979) as is the case for adults (Andreason, 1971, 1972). The implication here is that a child's gender will play a role in adjustment during puberty and adolescence. Quinby and Bernstein's (1971) findings that children, who have been burned, develop depression during adolescence, would seem to support this view.

Here it may be noted that Korlof (1966) found that, while more men than women were satisfied with their appearance, they were more dissatisfied with loss of motion and limb weakness. In addition, men had more psychological problems than women.

**Severity and Type of Burn**

Chang and Herzog (1976) found that the duration of psychological disability seemed to be more related to the percentage of the body burned than to whether or not a person was visibly burned on the hands or face. Similarly, Andreason (1971, 1972) reports that she could not find any
clear relationship between (mal)adjustment and the body area burned.

It is difficult to understand these findings in view of the fundamental importance of the face in the development of body-image and self-concept (Giljohann, 1981). Giljohann (1981) states further that not all children succeed in working through the problems associated with facial injuries. Bernstein and Cope (1976) and Constable and Bernstein (1979) present further evidence as to the significance of facial injury. They state that there would seem to be something inherent in the nature of facial injuries that make it unrealistic to expect a good adjustment to be made. They state that a damaged face constitutes a significant obstacle to the development of an acceptable body-image and positive self-concept.

The significance of facial injury is further reinforced by Martin (1981) who points out that children experienced a very real concern about physical damage to their bodies, something which was particularly evident in children with facial injury. Murray-Clarke and Martin (1979) also found that patients whose burn scars were covered by clothes made better adjustment than those with visible burns.
Time-Lapse Since Burn

There is no clarity on whether post-burn time-lapse has any influence on adjustment. This state of affairs is a reflection of the lack of data from longitudinal studies and is evidenced by the findings of Woodward (1962) and Martin (1972), who report a decrease in emotional disturbance as time from discharge increased; while Quinby and Bernstein (1971) found that children who had been burned developed major depression during adolescence.

This highlights the problem of identifying variables which may influence adjustment. For, whereas Woodward, Martin and Quinby and Bernstein's findings appear to be contradictory, when only the time-lapse since burn is considered, this would not be the case when developmental stages are additionally considered.

The important lesson, here, is that it should always be remembered that factors influencing adjustment should never be considered in isolation. Failure to do so will invariably result in useless data.

PSYCHOLOGICAL INTERVENTION

Many authors, reviewed by Bowden, Jones and Feller (1979),
beginning with Hamburg, Hamburg and De Goza (1953), have stressed the need for patients to have someone to whom they can relate on a one-to-one basis, someone who would offer empathy and support which would enable the patients to express their feelings and fears.

Martin (1975) suggests having an "observer" assigned to visit and talk to a child on a regular basis, and be sensitive to (and respond to) issues the child wishes to talk about. West and Shuck (1978) too, feel that benefits could be obtained by having someone comfortable with children, and familiar with the literature, who can provide extra care. They suggest that such people can help children accept and master their situations by using play and by "playing out" with dolls. They state that these helpers, because of the identification of treatment (and therefore medical staff) with punishment, should not be involved in the patient's physical care.

In describing the actual form of therapy for burned children, Watson and Johnson (1956; 1958) conclude that data suggest that psychotherapy with the disfigured child must include:

(1) An investigation of the significance of the defect to the child.

(2) The mobilization into consciousness of the child's
disturbing feelings with appropriate channeling of their expression.

(3) Verbal and visual education regarding the exact nature of the defect and of measures taken to correct it; and

(4) The evaluation of the child's self-esteem as he experiences and imitates the affectionate, accepting attitude of the physician.

**SELF-CONCEPT AND ENRICHMENT**

The importance of self-concept, its influence on motivation, achievement and behaviour has been recognized by most psychologists and educators. Combs, Avila and Purkey (1971), for example, stated that the most important factor affecting behaviour is self-concept. Other writers (Coopersmith, 1959; Meeks, 1968; Morse, 1964; Dinkmeyer, 1970) agree that self-concept is important to learning and behaviour. Further, a number of studies have shown that few factors are as relevant to a child's academic success and social development as his feelings of adequacy and self-acceptance (Coopersmith, 1959; Dinkmeyer, 1970). Caution should be exercised, however, when discussing self-concept and academic achievement, for, as noted by Laubscher (1981), although the relationship between self-concept and academic
achievement is well established, there is no clear-cut evidence that self-concept is the causal factor. He quotes Scheirer and Kraut (1979) in this regard:

"... the overwhelming negative evidence reviewed here for a causal connection between self-concept and academic achievement should create caution among both educators and theorists who have heretofore assumed that enhancing a person's feelings about himself would lead to academic achievement." (p.145)

There is a growing awareness among educators and theorists of the need for programmes which facilitate social and emotional development. This is made clear from the writing of Pitt (1977) and Bryan (1976), who found that there was a significant relationship between personality and social interaction, and Gergen (1977: 65) who pointed out that:

"Fundamental feelings we have for others are the feelings we have for ourselves."

In other words, feelings towards the self create a predisposition to react to others' behaviours and educations in a certain way. It is, therefore, not sufficient merely to have a greater understanding of others without first understanding oneself.

It would not be unreasonable to assume that a programme,
incorporating the aims of creating a greater understanding of the self and others and with a focus on social and emotional learning, would be of particular benefit to children from a relatively deprived environmental background (in this regard, note the socio-economic background of burned children, p. 98). Of importance here are the findings of Manganyi (1970) who found that individuals coming from a deprived socio-economic background had a significantly lower self-esteem than those who did not. Similarly, Burnes (1970) found that disadvantaged children evidenced a significantly lower self-esteem than their more advantaged counterparts.

THE D.U.S.O. PROGRAMME

A programme which concerns itself with the development of an understanding of self and others, while focusing on social and emotional learning, is the D.U.S.O. programme.

The D.U.S.O. (abbreviation for "Developing the Understanding of Self and Others") programme, as the name implies, is concerned with the understanding and accepting of the self, the understanding of feelings, and the understanding of others. Its emphasis is on the identification, recognition, acceptance and appreciation of individual differences, with particular emphasis on the importance of self-evaluation.
The D.U.S.O. programme was developed by Dinkmeyer (1970) and utilizes modelling and role-playing techniques. It is designed to help the child become more aware of the relationship between himself and others, as well as his needs and goals. Through the D.U.S.O. programme, the child is helped to develop sensitivity to the causal, purposive, and consequential nature of his behaviour.

As regards the understanding and acceptance of the self, the programme lays stress on the need for a greater awareness of the self and the need for an ability to cope with the differentiation between the self, self-ideal, and the expectations of peers and significant adults. It also stresses the need for the acceptance of one's liabilities (including the acceptance of imperfections in oneself) and assets.

The programme also provides for the greater understanding of the relationship between a child's own world and the world of others, thus helping a child to move from self-centredness to social interest and to become socially responsible. It also aims at helping children understand what makes people acceptable or unacceptable in a group.

That the D.U.S.O. programme has been successful in its aims is evidenced by the positive results found in the studies of the effect of the programme on self-concepts (Eldridge
et al., 1972); on the understanding and acceptance of the self (Cleminshaw, 1973); and on the development of social awareness (Finley, 1973, quoted in Bagg, 1975).

Having reviewed burned children in terms of a burn profile, factors influencing adjustment and modes of psychological intervention, we can now, still bearing in mind the study's objectives as established in the introduction to this chapter, set out the detailed aims and hypotheses.

AIMS OF STUDY

A. General Aims

(1) That by employing the modelling, role-playing and discussion activities of Dinkmeyer's (1970) D.U.S.O. programme, to give burned children an opportunity to express their feelings and fears, and to "act-out" their experiences in a supportive environment. This supportive environment will be tailored along the lines suggested by Martin (1975), to provide the burned child with someone, offering him warmth, empathy and acceptance, and who is sensitive and able to respond to issues the child wishes to talk about, and by West and Shuck (1978) who suggest the use of "dolls" to enable the burned child to "play-out" problems,
fears, experiences, etc.

(2) To gain information regarding the self-concept of burned children.

(3) Following the findings of De Wet et al. (1979), to establish, by means of a behaviour questionnaire, whether burned children manifested any maladaptive behaviour.

(4) To draw a general profile of the burned child.

(5) To study the effect of role-play on the self-concept of the burned child.

B. Specific Aims

(1) To investigate the significance of disfigurement for the burned child.

(2) The mobilization into consciousness of disturbing feelings of the burned child and the appropriate channeling of these feelings.

(3) To establish what type of defence mechanisms, if any, the child employs.
HYPOTHESES

Hypothesis 1

That the groups of burned children taking part in the overall programme (treatment group and control group), would, when compared to the non-burn control group of children, show a significantly greater increase in overall self-concept, due to enrichment.

Hypothesis 2

That the burned children (treatment group) taking part in the D.U.S.O. programme would, when compared to the burn group not taking part in the D.U.S.O. programme (burn control group), show a significantly greater increase in overall self-concept - reflecting enrichment peculiar to the D.U.S.O. programme.

Hypothesis 3

That the burn treatment group, when compared to the burn and non-burn control groups, would show a significantly greater increase on the social-self subscale of self-concept, due to participation in the D.U.S.O. programme.
Hypothesis 4

That the burn treatment group, when compared to the burn and non-burn control groups, would show a significantly greater increase on the parental-self subscale of self-concept, due to participation in the D.U.S.O. programme.

Hypothesis 5

That the burn treatment group, when compared to the burn and non-burn control groups, would show a significantly greater increase on the physical-self subscale of self-concept, due to participation in the D.U.S.O. programme.

Hypothesis 6

That the burn treatment group, when compared to the burn and non-burn control groups, would show a significantly greater increase on the school-self subscale of self-concept, due to participation in the D.U.S.O. programme.

Hypothesis 7

That the burn treatment group, when compared to the burn
and non-burn control groups, would show a significant decrease in body-image disturbance scores on the Draw-a-Person test, due to participation in the D.U.S.O. programme.

**Hypothesis 8**

That the burn treatment group, when compared to the burn and non-burn control groups, would show a significant decrease in aggression on the Draw-a-Person test, due to participation in the D.U.S.O. programme.
CHAPTER 6

METHOD

SUBJECTS

A. Burn Group

Permission was granted by the Head of the Department of Paediatric Surgery of the Red Cross Children's Hospital to undertake research into the psycho-social adjustment of children disfigured by burns, in co-operation with the Institute of Child Health. A list of potential subjects was compiled by consulting hospital files and extracting the names of children who had been hospitalized, either for initial burn trauma or for reconstructive surgery, in the three years preceding 1982. The criteria for inclusion in this list were:

(1) That the potential subject belonged to the socio-political group known as "Coloured".

This criterion was deemed necessary in an attempt to control, as far as was possible, contaminating variables such as social and cultural backgrounds.

(2) That the potential subjects have some area of the body
burned that would normally be visible.

This criterion stems directly from the study's main focus of the investigation of the role of physical distinctiveness as a pertinent feature of self-concept. Bearing this aim in mind, it follows that subjects needed to have a distinct, or visible, physical characteristic setting them apart from the average person - in this case, visible burn scars.

(3) That the potential subject live within reasonable reach of the Red Cross War Memorial Children's Hospital, having regard to both geography and available transport.

Purely practical reasons motivated this criterion since only those children able to reach the Red Cross Hospital (Rondebosch) would be able to attend the proposed programme.

(4) That potential subjects be within the 7 - 12 years old age group.

The fact that the names of children were extracted from hospital files for the three years preceding 1982 largely dictated the age grouping of the subjects since the hospital only served children up to the age of 12. The upper age limit was finally set in an attempt to avoid the confounding variables that puberty would introduce. The lower age limit was
set as children below this age would not yet have experienced peer reaction at school to their burns, as would the older children, and many may not yet possess the verbal skills required by the programme.

(5) That the potential subject be Afrikaans speaking.

Since, for practical reasons, the proposed programme could only be held in one language, it was decided that the Afrikaans language medium be used since this was most frequently the home language of the group concerned. Following this, it was decided to exclude English-speaking burned children in order to avoid possible problems in communication.

Letters (see Appendix) were written to the parents of potential subjects. These letters set out the aims of the research and requested parents to contact the writer should they be interested in their child taking part in the research programme. Approximately 60 letters were despatched in all, with 18 replies being received.

The 18 subjects were matched on the variable of gender as well as age, body area burned, and educational level as closely as was possible (see Appendix) and allocated to either a treatment group or control group, each of nine subjects.
B. "Non-Burn" Control Group

A group of nine physically normal children was drawn from a local primary school. They were matched with the burn groups on the variable of gender as well as age and education level as closely as was possible.

DESIGN

The programme design incorporated the three subject groups mentioned above, and employed psychometric measurements, for self-concept and the Draw-a-Person test, in both the pre and post conditions. In addition, the burn groups were assessed on the Adaptation Questionnaire in the pre-assessment condition. The design can be illustrated as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>Pre-Assessment</th>
<th>Treatment</th>
<th>Post-Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment</td>
<td>9</td>
<td>Self-Concept</td>
<td>Adaptation</td>
<td>D.U.S.O.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questionnaire</td>
<td></td>
<td>Self-Concept</td>
</tr>
<tr>
<td>Burn Control</td>
<td>9</td>
<td>and</td>
<td>Stories &amp; Games</td>
<td>and</td>
</tr>
<tr>
<td>&quot;Non-Burn&quot; Control*</td>
<td>9</td>
<td>Draw-a-Person Test</td>
<td>-</td>
<td>Draw-a-Person Test</td>
</tr>
</tbody>
</table>

*The non-burn control group is included simply as a base line measure, due to the lack of reliability and validity data for the Coloured population group.
ASSESSMENT

Test Selection

Choosing psychometric tests for the population group in question raises difficulties as no self-concept scale would seem to be available for the Coloured population group. Reliance, therefore, has to be placed on self-concept scales pertinent to the White population group. Whereas this is not a satisfactory state of affairs, there is, unfortunately, no alternative besides the design and validation of such a self-concept scale oneself - something clearly beyond the scope of this study.

It was against this background that Laubscher's (1978) self-concept scale was deemed to be the most suitable scale available. Advantages in the use of this scale lie in the age group it was designed for and its use of pairs of animals in such a manner as to avoid an "interrogative" format which is not, the writer believes, suitable for children (see description). Lastly, the scale was chosen, despite the lack of reliability and validity data for the Coloured group, since results obtained from it would not be weighed against a norm, but would merely be utilized on a pre-test and post-test basis.
The Self-Concept Questionnaire for Primary School Children

This self-concept scale was designed by Laubscher (1978) for, as the title suggests, primary school children. The scale was standardized for White, Afrikaans-speaking children.

The scale consists of 85 pairs of statements made by commonplace animals (dogs, pigs, rabbits, lions, etc.). Each of the 85 items presents two animals, one being striped and the other with dots. One of these animals makes a statement, e.g. "My father often plays with me", while the other animal makes the contrary statement - in this case, "My father hardly ever plays with me". The child is requested to place a cross in the block under either the striped or dotted animal whose statement corresponds most closely to what he, the child, would say.

The self-concept scale has four subscales: the school-self (20 items), the parental-self (20 items), the physical-self (25 items), and the social-self (20 items).

The scale is marked by allocating one point for a correct response and no mark for an incorrect response. Reliability for White, Afrikaans-speaking children was reported as follows: parental-self subscale, 0.66; school-self subscale, 0.66; social-self subscale, 0.78; physical-self
subscale, 0,68; and for the self-concept scale as a whole, 0,82 (Laubscher, 1978). No reliability scores are available for the Coloured population group.

Unfortunately, in compliance with a restriction subject to which permission was granted for the use of the self-concept scale, it is not possible to publish an example of the scale.

Machover's Draw-a-Person Test

The Machover Draw-a-Person (D.A.P.) test is a paper and pencil test, formulated by Machover (1949), in which a subject is requested, firstly, to draw a person, and, then, to draw a person of the sex opposite to that of the figure drawn first.

Machover believes that, in the D.A.P. test, the individual draws consciously and/or subconsciously on the whole system of psychic values. As a result, she assumes that when an individual draws a person, he is predetermined to project his body-image. This has become known as the "body-image hypothesis".

Although much criticism (Bennet, 1960; Swensen, 1957; Copeland, 1952; etc.) has been levelled at Machover's hypotheses, especially her body-image hypothesis, no attempt will be made here to review all the literature on the
subject. For this, the reader is referred to Manganyi (1970).

Swensen (1957) has made an extensive review of the literature on the D.A.P. test and found that although studies using adults as subjects tended to support Machover's body-image hypothesis, this was not the case in studies using children as subjects. Manganyi (1970: 109) points out that these findings may not be of a contradictory nature and suggests that developmental immaturity may account for the lack of differentiation and consolidation of body-image in early developmental stages.

More recently, however, studies using children as subjects (Ludwig, 1969; Silverstein and Robinson, 1961; Wysocki and Whitney, 1965, all quoted in Manganyi, 1970; and Nielsen, 1966, quoted in Madden, 1977) have offered partial support for Machover's body-image hypothesis.

Although the D.A.P. body-image hypothesis, particularly in regard to children, is still subject to theoretical confusions and requires proper validation and reliability data, it is used in this study in an attempt to elicit information on body-image that may be available at an unconscious level.
Administration

The D.A.P. test was administered after item 45 of the self-concept questionnaire had been completed.

Subjects were asked whether they would like to take a small break from filling out the questionnaire and draw some pictures. On their confirming this (as was always the case), they were told that the tester would like them to draw two pictures. They were then instructed to draw a person and to indicate when they had completed the drawing. On completing the drawing they were asked to indicate the sex of the person depicted and this was noted, and the drawing marked "other". Following the suggestion of Berryman (1959) who sees that refusal to do so to be diagnostic, subjects were then asked to draw themselves and, on completion, were asked to write their names either underneath or at the top of the drawing.

White sheets of A4 paper were used for all drawings.

Analysis

D.A.P. protocols were analysed by the writer.

The protocols were analysed by two methods: Body-Image Disturbance scores and Aggression scores.
(1) Body-Image Disturbance Scores

Fisher's (1959) Body-Image Disturbance scores consist of 14 items, the presence of each of which in a drawing would indicate body-image disturbance. For the purpose of this study, one item was excluded as being inappropriate to the subjects under study.

One point was allocated for each item applicable to the drawing in question. As two human figure drawings were involved ("other" and self), the maximum body-image disturbance score was 26.

For details on items and scoring see Appendix.

(2) Aggression Scores

Scores for aggression were obtained by utilizing Goldstein and Rawn's (1957) method of scoring D.A.P. tests. The original scale consisted of nine items, the presence of which in a drawing, would seem to indicate aggression. Since, however, Goldstein and Rawn found that two items were not valid indicators of aggression, they were excluded from the scale used in this study.

As was the case with the body-image disturbance score, one point was allocated for each item applicable to the drawing.
in question. The maximum aggression score for the two human figure drawings combined was 14.

Details on items and scoring can be found in the Appendix.

**Adaptation Questionnaire**

This questionnaire is an adaptation of the American Association on Mental Deficiency's "Adaptive Behaviour Scale" (1975).

**Background**

The American Association on Mental Deficiency (A.A.M.D.) Behaviour rating scale for mentally retarded, emotionally maladjusted and developmentally disabled individuals was designed to provide objective descriptions and evaluations of an individual's behaviour. This scale's primary objective is to provide one dimension for the assessment of an individual's ability to function in society.

Part One of the A.A.M.D. Adaptive Behaviour Scale is organized under developmental lines, and as such, has no direct interest to this study, an exception being the Socialization category. Part Two of the scale consists of 14 categories and is designed to provide measures of maladaptive behaviour.
related to personality and behaviour disorders. Of these 14 categories, ten (see description) were incorporated into the Adaptation Questionnaire.

The Adaptation Questionnaire

This questionnaire was translated into Afrikaans from the original A.A.M.D. Adaptive Behaviour Scale. Although care was taken to keep the language as simple as possible; the questionnaire was printed in both Afrikaans and English for cross-referencing purposes should problems arise in interpretation.

As was the case with the original scale, this questionnaire was designed to provide an objective description and evaluation of an individual's adaptive behaviour. The emphasis here, however, being only on socialization, mal-adaptive behaviour related to personality and behaviour disorders.

The questionnaire consists of 37 items and follows the format of the A.A.M.D. Scale which requires the person completing it to place a cross in either one block opposite the appropriate behaviour or, alternatively, in all of the blocks opposite the appropriate behaviours (see Appendix).

The questionnaire aims at eliciting information on behaviour
which can be divided into the following categories:

1. Violent and destructive behaviour (items 7 - 11)
2. Anti-social behaviour (items 12 - 17)
3. Rebellious behaviour (items 18 - 21)
4. Socialization (items 1 - 6)
5. Withdrawal (items 22 - 24)
6. Stereotype behaviour and odd mannerisms (item 25)
7. Inappropriate interpersonal manners (item 26)
8. Unacceptable or eccentric habits (items 27 - 29)
9. Self-abusive behaviour (item 30)
10. Hyperactive tendencies (item 31)
11. Psychological disturbance (items 32 - 37).

As both the A.A.M.D. and the adapted version are merely designed as tools for providing but one dimension in assessing an individual's ability to function in society, the calculation of reliability data is not practicable.

THE D.U.S.O. PROGRAMME

The D.U.S.O. programme is a programme of activities, with an
accompanying kit of materials designed to assist children in better understanding socio-emotional behaviour. D.U.S.O. is specifically aimed at kindergarten and primary school children and may be used by teachers or others as a developmental guidance programme. It can be employed without any special training.

The programme is structured so that it may be used throughout a school year, on a daily basis. Alternatively, activities may be selected from the programme to fit the specific needs of a particular group.

These programme activities make extensive use of a listening, inquiring, discussion and experiential approach to learning. The activities include story telling, role-playing, puppet play, group discussion.

The programme is based on eight basic themes: each theme providing the focus for one of the eight units. The eight unit themes are:

(1) Understanding and accepting self;
(2) Understanding feelings;
(3) Understanding others;
(4) Understanding independence;
(5) Understanding goals and purposeful behaviour;
The D.U.S.O. kit includes eight puppets, two of which represent the main characters of the programme - "Duso" and "Flopsie".*

Duso, the dolphin puppet, is the central character of the programme. Duso is an understanding listener who helps children towards a better understanding of behaviour. In addition, Duso helps children take positive action towards solving problems as well as developing a better general understanding of themselves and others.

Flopsie, the flounder, acts as a foil for Duso. Flopsie is inquisitive and provides a model with which someone, changing from being indecisive and dependent, to someone more self-confident and decisive, can identify.

The six remaining hand-puppets include an adult female, an adult male, two female children and two male children. These puppets can be used either in one of the various puppetry activities, as set out in the manual, or as tools for role-playing.

The text of the D.U.S.O. stories and their illustrations

*For the purpose of describing the D.U.S.O. programme, original puppet names are retained. In the stories translated into Afrikaans (see Appendix), however, these two puppets are known as "Snoekie" and "Klein Snoekie" respectively.
are contained in two story books designed for lap presentation. As the reader holds the books on his, or her, lap, the story illustrations are vertical and in full view of the listener.

The stories focus on normal developmental concerns of children and are designed:

- to depict situations in which different characters meet life tasks either constructively or ineffectively;
- to enable children to identify with the characters of the story;
- to direct the children's attention to a basic concept or theme relating to understanding themselves and others;
- to stimulate discussion about the goals and consequences of the behaviour of the characters in the story; and
- to stimulate how the children would feel, think and act in a similar situation.

One of the most important types of activity in the D.U.S.O. programme is role-playing which is included in each cycle.

In the D.U.S.O. programme, role-playing is the informal dramatization of a situation, problem, story or scene and can stem from a role-playing activity in any particular
cycle, or from problems, situations, etc. arising from discussion. The role-playing group leader selects the children to participate and guides the discussion and evaluation at the conclusion of the role-playing activity.

Role-playing is seen as being both a psychologically and educationally sound technique to use in developmental guidance. The spontaneity and informality of the technique encourages a freedom among the children that is conducive to a frank and honest exchange of ideas. It offers the children an opportunity to air many of their emotions in relative safety without fear of being censured.

Role-playing provides an opportunity to become more observant of the behaviour of others, to look for the purposes and causes of behaviour, and to anticipate the results of certain behaviour. In so doing, it encourages the children's understanding of others' motivations, perceptions, etc.

The environment established by role-playing, within the framework of the D.U.S.O. programme, offers children the opportunity for the transfer of learning from speech to action.
PROCEDURE

Burn Groups

(A) Pre-Testing

1. The self-concept scale and the D.A.P. test were administered to both the burn treatment and burn control groups prior to the commencement of the programme.

2. Parents or guardians of subjects were asked to complete the Adaptation Questionnaire.

3. A letter was sent to principals of relevant schools, in which the research objectives were outlined, and in which they were requested to complete the Adaptation Questionnaire, in order to obtain information regarding school behaviour.

(B) Programme

1. The burn treatment group took part in the D.U.S.O. programme over a period of five consecutive days. Each daily session lasted for approximately 90 minutes. The units, cycles and activities covered are set out in Table 1 (overleaf).

2. The burn control group were read the same stories as were the burn treatment group. They did not, however,
Programme Schedule (Burn Treatment Group)

<table>
<thead>
<tr>
<th>Day</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing</td>
<td>Pre-Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Story</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) 'Dronk in die Kop' Danie</td>
<td></td>
<td>(5) Die Kis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Wilma Gaan Skool Toe</td>
<td></td>
<td>(8) Snoekie en Klein Snoekie</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9) Die Hard-loper/ 'Jogger'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussion of Story</td>
<td>Discussion of Story</td>
<td>Discussion of Story</td>
<td>Discussion of Story</td>
<td>Discussion of Story</td>
<td></td>
</tr>
<tr>
<td>Role-Play</td>
<td>Role-Play</td>
<td>Role-Play</td>
<td>Role-Play</td>
<td>Role-Play</td>
<td></td>
</tr>
<tr>
<td>Discussion of Role-Play</td>
<td>Discussion of Role-Play</td>
<td>Discussion of Role-Play</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testing</td>
<td></td>
<td></td>
<td></td>
<td>Post-Testing</td>
<td></td>
</tr>
</tbody>
</table>

Table 1

*For translated stories, see Appendix*
take part in story discussions, role-play or role-play discussions. Instead, group members were allowed free-play with puppets and allowed to put together jig-saw puzzles, read and play with toys.

(C) Post-Testing

At the end of the programme, both the burn treatment and the burn control groups were administered the self-concept scale and the D.A.P. test.*

Non-Burn Control Group

The non-burn control group, like their burn group counterparts, completed the self-concept questionnaire and the D.A.P. test. After a period, equivalent to that between the pre-testing and post-testing of the burn groups, they were tested again on the same tests.

*It had originally been the plan to have parents of subjects and school principals complete the Adaptation Questionnaire a second time, approximately two months after the end of the programme, in order to ascertain whether any behaviour change had occurred. Due to difficulties experienced (see Chapter 9), however, this part of the research could not be carried out.
CHAPTER 7

RESULTS

ANALYSES

A. Self-Concept Questionnaire and Draw-a-Person Test

Analyses encompassed three groups with measurements on the following dimensions:

1. Overall self-concept;
2. Social-self;
3. Parental-self;
4. Physical-self;
5. School-self;
6. Body-image disturbance score on D.A.P. test; and

The first group represents the group of burned children participating in the D.U.S.O. programme - the "Burn Treatment Group". The second group represents the group of burned children not participating in the D.U.S.O. programme - the "Burn Control Group". The last group represents the group of school children, not burned - the "Non-Burn Control Group".
Summaries of the means, standard deviations and ranges on the abovementioned dimensions are set out.

For each of the dimensions a two-way Analysis of Variance with Repeated Measures was performed, Factor A being the three groups, and Factor B being pre-testing and post-testing conditions. Where the interaction effect was found to be significant, Simple Main Effects were calculated, followed by Pairwise Comparisons where necessary.

B. Combination of Statistical Data

To facilitate the drawing of a profile of the burned child, various components of the statistical data obtained were combined in a tabular form (Table 26) which would enable comparisons to be made between the various sets of data.

C. Adaptation Questionnaire

Unlike the Self-Concept Questionnaire and the Draw-a-Person test, the Adaptation Questionnaire was not subjected to formal statistical analysis. The argument against a systematic scoring procedure is set out in the American Association of Mental Deficiency's manual (1975), in its discussion on Part II of its Adaptive Behaviour Scale (upon which the present questionnaire is largely based). Points made are:
That reported behaviour cannot be considered to be of equal importance, e.g. a person setting a fire may have a greater need of attention than a person frequently using profane language;

Attitudes differ from neighbourhood to neighbourhood and grouping to grouping. This means that some behaviours will be acceptable to some while being unacceptable to others;

There are major age differences in the behaviour of individuals. It would, for example, be acceptable for a young child to shout and jump up and down, whereas an older child's similar behaviour would not be acceptable; and

That although a high score on the Adaptation Questionnaire would generally indicate less adaptive behaviour than lower scores, the lack of development rationale makes it difficult to determine when a high score is significantly high.

Considering these factors, it was decided that data from the Adaptation Questionnaire should be analysed qualitatively. In an attempt to provide an objective description and evaluation of the burned child's adaptive behaviour, due regard being had to the setting in which he has to survive, data from the Adaptation Questionnaire were analysed in terms of the importance of the behaviour and the particular
child's environmental background. Results are set out in Table 26.

**Overall Self-Concept Results**

Summary statistics for this measure are provided in Tables 2 and 3 below. Graphical representation of summary statistics is provided in Figure 7 and analysis is given in the Anova summary table (Table 4).

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burn Treatment Group</strong></td>
<td>Mean 64.11</td>
<td>Mean 67.78</td>
</tr>
<tr>
<td></td>
<td>SD 17.95</td>
<td>SD 16.08</td>
</tr>
<tr>
<td></td>
<td>Range 39-82</td>
<td>Range 42-83</td>
</tr>
<tr>
<td><strong>Burn Control Group</strong></td>
<td>Mean 65.33</td>
<td>Mean 68.78</td>
</tr>
<tr>
<td></td>
<td>SD 10.75</td>
<td>SD 8.66</td>
</tr>
<tr>
<td></td>
<td>Range 51-80</td>
<td>Range 57-81</td>
</tr>
<tr>
<td><strong>Non-burn Control Group</strong></td>
<td>Mean 70.78</td>
<td>Mean 70.44</td>
</tr>
<tr>
<td></td>
<td>SD 11.24</td>
<td>SD 11.62</td>
</tr>
<tr>
<td></td>
<td>Range 51-84</td>
<td>Range 49-83</td>
</tr>
</tbody>
</table>

**Table 2**
Summary of Overall Self-Concept Means, Standard Deviations and Ranges

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean 3.67</td>
<td>% 5.72</td>
<td>Mean 3.45</td>
</tr>
</tbody>
</table>

**Table 3**
Summary of Changes in Overall Self-Concept Mean Scores
Figure 7
Mean Overall Self-Concept Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>213,93</td>
<td>2</td>
<td>106,97</td>
<td>0,33</td>
</tr>
<tr>
<td>S.W.G.</td>
<td>7739,67</td>
<td>24</td>
<td>332,49</td>
<td></td>
</tr>
<tr>
<td>Within Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>68,91</td>
<td>1</td>
<td>68,91</td>
<td>3,18*</td>
</tr>
<tr>
<td>AB</td>
<td>45,47</td>
<td>2</td>
<td>22,74</td>
<td>1,05</td>
</tr>
<tr>
<td>B x S.W.G.</td>
<td>520,11</td>
<td>24</td>
<td>21,67</td>
<td></td>
</tr>
</tbody>
</table>

p < 0,05**
p < 0,1 *

Table 4
Anova Summary Table for Overall Self-Concept

F. Crit. : 0,05 = 3,40  F. Crit. : 0,05 = 4,26
0,05 = 2,24  1:24 = 4,26
F. Crit. : 0,10 = 2,54  F. Crit. : 0,10 = 2,93
0,10 = 2,24  1:24 = 2,93
No results were found to be significant at the 0.05 level. In order to detect broad trends, the 0.10 level of significance was considered and it was found that the B main effect was significant at that level of significance.

This can be broadly interpreted as meaning that overall self-concept scores were higher in the post-test condition than the pre-test condition. This result suggests that overall self-concept scores increased uniformly across A treatment conditions.

Since the interaction effect was not significant and since there were only two levels of B, no further analysis was necessary.

**Social-Self Subscale Results**

Summary statistics for this measure are provided in Tables 5 and 6. Graphical representation of summary statistics is provided in Figure 8. Analysis is given in the Anova summary table (Table 7) and the table of simple main effects (Table 8).
<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burn Treatment Group</strong></td>
<td>Mean: 15.44, SD: 4.24, Range: 8-20</td>
<td>Mean: 17.00, SD: 3.46, Range: 11-20</td>
</tr>
<tr>
<td><strong>Burn Control Group</strong></td>
<td>Mean: 15.89, SD: 2.67, Range: 11-19</td>
<td>Mean: 16.55, SD: 2.50, Range: 13-20</td>
</tr>
<tr>
<td><strong>Non-burn Control Group</strong></td>
<td>Mean: 17.11, SD: 3.92, Range: 8-20</td>
<td>Mean: 16.55, SD: 3.04, Range: 10-20</td>
</tr>
</tbody>
</table>

Table 5
Summary of Social-Self Means, Standard Deviations & Ranges

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>%</td>
<td>+1.56</td>
<td>+0.66</td>
</tr>
<tr>
<td>+10.10</td>
<td>+4.15</td>
<td>-0.56</td>
</tr>
<tr>
<td>-3.27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6
Summary of Changes in Mean Social-Self Scores

Figure 8
Mean Social-Self Scores
In this Anova, no result was found to be significant. Since, however, the critical value (2.54) for interaction effect is only slightly larger than the actual F value (2.52), the Simple Main Effects were examined in attempt to investigate broad trends.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>4,48</td>
<td>2</td>
<td>2,24</td>
<td>0,11</td>
</tr>
<tr>
<td>S.W.G.</td>
<td>496,22</td>
<td>24</td>
<td>20,68</td>
<td></td>
</tr>
<tr>
<td>Within Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>4,17</td>
<td>1</td>
<td>4,17</td>
<td>2,07</td>
</tr>
<tr>
<td>AB</td>
<td>10,11</td>
<td>2</td>
<td>5,06</td>
<td>2,52</td>
</tr>
<tr>
<td>B x S.W.G.</td>
<td>48,22</td>
<td>24</td>
<td>2,01</td>
<td></td>
</tr>
</tbody>
</table>

\( p < 0.05^* \\ p < 0.10^{**} \\

Table 7
Anova Summary Table for Social-Self

*\( p < 0,05 \)
The table shows that B at A_{1} was significant at the 0,05 level. This implies that there was a significant difference between the pre- and post-test social-self scores of the Burn Treatment Group. Bearing in mind that the table of cell means (Table 5) showed a higher post-test score than the pre-test score, it can be said that the Burn Treatment Group showed a significantly higher social-self score following treatment.

Parental-Self Subscale Results

Summary statistics for this measure are provided in Tables 9 and 10. Graphical representation of summary statistics is provided in Figure 9. Analysis is given in the Anova summary table (Table 11).

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment</td>
<td>Mean</td>
<td>15,67</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>4,15</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>8-20</td>
</tr>
<tr>
<td>Burn Control</td>
<td>Mean</td>
<td>15,67</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2,40</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>12-18</td>
</tr>
<tr>
<td>Non-Burn Control</td>
<td>Mean</td>
<td>15,67</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>3,94</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>9-20</td>
</tr>
</tbody>
</table>

Table 9
Summary of Parental-Self Means, Standard Deviations & Ranges
### Summary of Changes in Mean Parental-Self Scores

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean %</td>
<td>Mean %</td>
<td>Mean %</td>
</tr>
<tr>
<td>0 0</td>
<td>+0,66 +4,21</td>
<td>+0,44 +2,81</td>
</tr>
</tbody>
</table>

**Table 10**

**Figure 9**

Mean Parental-Self Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1,04</td>
<td>2</td>
<td>0,52</td>
<td>0,02</td>
</tr>
<tr>
<td>S.W.G.</td>
<td>621,78</td>
<td>24</td>
<td>25,91</td>
<td></td>
</tr>
<tr>
<td>Within Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1,85</td>
<td>1</td>
<td>1,85</td>
<td>0,94</td>
</tr>
<tr>
<td>AB</td>
<td>1,04</td>
<td>2</td>
<td>0,52</td>
<td>0,26</td>
</tr>
<tr>
<td>B x S.W.G.</td>
<td>-47,11</td>
<td>24</td>
<td>1,96</td>
<td></td>
</tr>
<tr>
<td>p &lt;&lt; 0,05**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p &lt; 0,10*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 11**

Anova Summary Table for Parental-Self
No effects represented in this Anova were found to be significant.

This means that there was no difference among the three subject-groups either on the pre-testing or post-testing levels and that no significant difference was found between pre- and post-test levels for parental-self scores.

**Physical-Self Subscale Results**

Summary statistics for this measure are provided in Tables 12 and 13. Graphical representation of summary statistics is provided in Figure 10. Analysis is given in the Anova summary table (Table 14) and the table of Simple Main Effects (Table 15).

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burn Treatment Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>17.78</td>
<td>19.33</td>
</tr>
<tr>
<td>SD</td>
<td>5.08</td>
<td>5.57</td>
</tr>
<tr>
<td>Range</td>
<td>7-24</td>
<td>8-25</td>
</tr>
<tr>
<td><strong>Burn Control Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>17.44</td>
<td>18.00</td>
</tr>
<tr>
<td>SD</td>
<td>5.32</td>
<td>4.79</td>
</tr>
<tr>
<td>Range</td>
<td>10-25</td>
<td>12-25</td>
</tr>
<tr>
<td><strong>Non-Burn Control Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>22.00</td>
<td>21.67</td>
</tr>
<tr>
<td>SD</td>
<td>2.56</td>
<td>2.96</td>
</tr>
<tr>
<td>Range</td>
<td>17-25</td>
<td>17-25</td>
</tr>
</tbody>
</table>

*Table 12*

Summary of Physical-Self Means, Standard Deviations & Ranges
<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>+1.55</td>
<td>+8.72</td>
<td>+0.56</td>
</tr>
<tr>
<td>-0.33</td>
<td>-1.50</td>
<td></td>
</tr>
</tbody>
</table>

Table 13
Summary of Changes in Mean Physical-Self Scores

Figure 10
Physical-Self Mean Scores
Again, in an attempt to investigate broad trends, it was found that the interaction effect was significant at the 0.10 level. Accordingly, a Simple Main Effects analysis was carried out.

### Table 14

**Anova Summary Table for Physical-Self**

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>A at B1</td>
<td>116.15</td>
<td>2</td>
<td>58.08</td>
<td>2.60*</td>
</tr>
<tr>
<td>A at B2</td>
<td>62.14</td>
<td>2</td>
<td>31.07</td>
<td>1.39</td>
</tr>
<tr>
<td>W. Cell</td>
<td>1073.78</td>
<td>48</td>
<td>22.37</td>
<td></td>
</tr>
<tr>
<td>B at A1</td>
<td>10.81</td>
<td>1</td>
<td>10.81</td>
<td>7.16**</td>
</tr>
<tr>
<td>B at A2</td>
<td>1.41</td>
<td>1</td>
<td>1.41</td>
<td>0.94</td>
</tr>
<tr>
<td>B at A3</td>
<td>0.49</td>
<td>1</td>
<td>0.49</td>
<td>0.32</td>
</tr>
</tbody>
</table>

### Table 15

**Simple Main Effects Summary Table for Physical-Self**
Two significant effects were found in the Simple Main Effects analysis.

Firstly, A at B₁ was significant at the 0.10 level indicating that there was a trend for the three subject-groups to differ on pre-test physical-self scores. Since there were three levels of Factor A, Tukey's Pairwise Comparisons were calculated on the cell means in order to determine where the differences lay.

<table>
<thead>
<tr>
<th></th>
<th>A₁</th>
<th>A₂</th>
<th>A₃</th>
</tr>
</thead>
<tbody>
<tr>
<td>A₁</td>
<td>-</td>
<td>0.22</td>
<td>2.68</td>
</tr>
<tr>
<td>A₂</td>
<td></td>
<td>-</td>
<td>2.89</td>
</tr>
<tr>
<td>A₃</td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

p < 0.05*  t : 0.05  3:48 = 3.43

Table 16

Summary of Tukey's Pairwise Comparisons for Physical-Self

Having found a significant Simple Main Effect, it was expected that the Tukey's Pairwise Comparisons would also produce significant differences. No difference was found,
however, at the 0.05 level of significance. This was not considered contradictory to the significant Simple Main Effect since in that case the 0.10 level was applicable. Unfortunately no such level of significance could be traced by the writer for Tukey's Pairwise Comparisons. This is not, however, considered a too serious matter since we are only dealing with a broad trend and an "eyeball" impression of the summary of the Tukey's Pairwise Comparison shows that the difference between A₁ and A₂ was negligible. If we consider the comparisons between A₁ and A₃, and A₂ and A₃, and bear in mind the significant Main Effect, it would not be unreasonable to, under the circumstances, assume that there was a trend for the Burn Groups (A₁ and A₂) to differ from the Non-Burn Control Group (A₃) on physical-self scores at the pre-test level.

The second significant effect found in the Simple Main Effects' analysis was B at A₁ at the 0.05 level. This indicates that there was a significant difference between the pre- and post-test physical-self scores of the Burn Treatment Group. As the table of cell means (Table 1) showed a higher post- than pre-test score, it can be said that the Burn Treatment Group showed a significantly higher physical-self score following treatment.
School-Self Subscale Results

Summary statistics for this measure are provided in Tables 17 and 18. Graphical representation of summary statistics is provided in Figure 11. Analysis is given in the Anova summary table (Table 19).

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment Group</td>
<td>Mean 15.22</td>
<td>Mean 15.78</td>
</tr>
<tr>
<td></td>
<td>SD 5.09</td>
<td>SD 4.21</td>
</tr>
<tr>
<td></td>
<td>Range 9-20</td>
<td>Range 8-20</td>
</tr>
<tr>
<td>Burn Control Group</td>
<td>Mean 16.33</td>
<td>Mean 16.89</td>
</tr>
<tr>
<td></td>
<td>SD 2.12</td>
<td>SD 2.42</td>
</tr>
<tr>
<td></td>
<td>Range 13-19</td>
<td>Range 15-19</td>
</tr>
<tr>
<td>Non-Burn Control Group</td>
<td>Mean 15.89</td>
<td>Mean 15.56</td>
</tr>
<tr>
<td></td>
<td>SD 4.37</td>
<td>SD 4.45</td>
</tr>
<tr>
<td></td>
<td>Range 8-20</td>
<td>Range 8-20</td>
</tr>
</tbody>
</table>

Table 17
Summary of School-Self Means, Standard Deviations & Ranges

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean 0.56 % 3.68</td>
<td>Mean 0.56 % 3.43</td>
<td>Mean -0.33 % -2.08</td>
</tr>
</tbody>
</table>

Table 18
Summary of Changes in Mean School-Self Scores
Figure 11
Mean School-Self Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>12,44</td>
<td>2</td>
<td>6,22</td>
<td>0,23</td>
</tr>
<tr>
<td>S.W.G.</td>
<td>654,89</td>
<td>24</td>
<td>27,29</td>
<td></td>
</tr>
<tr>
<td>Within Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0,91</td>
<td>1</td>
<td>0,91</td>
<td>0,25</td>
</tr>
<tr>
<td>AB</td>
<td>2,37</td>
<td>2</td>
<td>1,19</td>
<td>0,32</td>
</tr>
<tr>
<td>B x S.W.G.</td>
<td>88,22</td>
<td>24</td>
<td>3,68</td>
<td></td>
</tr>
</tbody>
</table>

**p < 0,05**

* p < 0,10

Table 19
Anova Summary Table for School-Self

No significant effects were found in this Anova.

This means that the three subject-groups did not differ at either the pre- or post-test level, nor did they differ.
between pre-test and post-test levels on school-self scores.

Body-Image Disturbance (D.A.P.) Results

Summary statistics for this measure are provided in Tables 20 and 21. Graphical representation of summary statistics is provided in Figure 12. Analysis is given in the Anova summary table (Table 22).

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment</td>
<td>Mean</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1,41</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>8-12</td>
</tr>
<tr>
<td>Burn Control</td>
<td>Mean</td>
<td>8,44</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2,55</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>3-12</td>
</tr>
<tr>
<td>Non-Burn Control</td>
<td>Mean</td>
<td>8,11</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2,32</td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td>5-12</td>
</tr>
</tbody>
</table>

Table 20
Summary of Body-Image Disturbance Means, Standard Deviations & Ranges

<table>
<thead>
<tr>
<th></th>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>-0,89</td>
<td>+0,56</td>
<td>-0,78</td>
</tr>
<tr>
<td>%</td>
<td>-3,9</td>
<td>+6,64</td>
<td>-9,62</td>
</tr>
</tbody>
</table>

Table 21
Summary of Changes in Mean Body-Image Disturbance Scores
No significant effects were found in this Anova at any level.

This indicates that the three subject-groups were not
significantly different at either the pre- or post-test level, nor was there any significant difference between the pre- and post-test levels for body-image disturbance scores.

**Aggression (D.A.P.) Results**

Summary statistics for this measure are provided in Tables 23 and 24. Graphical presentation of summary statistics is provided in Figure 13. Analysis is given in the Anova summary table (Table 25).

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1,11</td>
<td>1,22</td>
</tr>
<tr>
<td>SD</td>
<td>0,93</td>
<td>0,83</td>
</tr>
<tr>
<td>Range</td>
<td>0-2</td>
<td>0-2</td>
</tr>
<tr>
<td>Burn Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1,11</td>
<td>1,22</td>
</tr>
<tr>
<td>SD</td>
<td>1,36</td>
<td>1,56</td>
</tr>
<tr>
<td>Range</td>
<td>0-4</td>
<td>0-4</td>
</tr>
<tr>
<td>Non-Burn Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>1,22</td>
<td>1,11</td>
</tr>
<tr>
<td>SD</td>
<td>1,09</td>
<td>0,93</td>
</tr>
<tr>
<td>Range</td>
<td>0-3</td>
<td>0-2</td>
</tr>
</tbody>
</table>

Table 23

Summary of Aggression Means, Standard Deviations & Ranges
### Table 24

**Summary of Changes in Mean Aggression Scores**

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>%</td>
<td>Mean</td>
</tr>
<tr>
<td>+1.11</td>
<td>+9.91</td>
<td>+0.11</td>
</tr>
<tr>
<td>-0.11</td>
<td>-9.02</td>
<td></td>
</tr>
</tbody>
</table>

---

**Figure 13**

Mean Aggression Scores
Table 25

Anova Summary Table for Aggression

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>-1,07E-06</td>
<td>2</td>
<td>-5,36E-07</td>
<td>-2,22E-07</td>
</tr>
<tr>
<td>S.W.G.</td>
<td>58</td>
<td>24</td>
<td>2,42</td>
<td></td>
</tr>
<tr>
<td>Within Subj.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>0,02</td>
<td>1</td>
<td>0,02</td>
<td>0,08</td>
</tr>
<tr>
<td>AB</td>
<td>0,15</td>
<td>2</td>
<td>0,07</td>
<td>0,33</td>
</tr>
<tr>
<td>B x S.W.G.</td>
<td>5,33</td>
<td>24</td>
<td>0,22</td>
<td></td>
</tr>
</tbody>
</table>

p < 0,05**

p < 0,10*

No significant effects were found at any level in this Anova.

This means that the three subject-groups did not differ significantly at either the pre-test or post-test level, nor was there any significant difference between the pre-test and post-test levels for aggression scores.

COMBINATION OF STATISTICAL DATA

In an attempt to answer some of the questions regarding the significance of disfigurement for the burned child, coping strategies employed and adaptation, various components of statistical data were combined in tabular form.
Firstly, the burned children's physical-self subscore of self-concept was analysed in terms of the total score, and then in terms of the response to items relating to that part of the individual's body which had been disfigured by burn.

As described earlier, the physical-self subscale consists of 25 items giving a choice between two opposing statements made by an animal. Twelve of these items ask a child to state (indirectly) whether he is satisfied with or would like to alter his: hair, face, eyes, legs, feet, ears, body, hands, mouth, nose, arms, or teeth (the remaining items dealing with physical activity or prowess). Where a subject was burned, e.g. the hands, the response to the item dealing with hands was noted for both pre- and post-self-concept tests.

These data, together with the total physical-self subscore, body-image disturbance score and aggression score on the D.A.P. test for each subject of the burn groups appear in Table 26 (overleaf).

A number of interesting points have been highlighted by the comparison of physical-self subscale scores and body-image disturbance and aggression scores. These are listed below for later discussion:
<table>
<thead>
<tr>
<th>Name</th>
<th>Area Burned</th>
<th>Physical Subscale</th>
<th>Body-Image Disturbance</th>
<th>Aggression</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>Neck</td>
<td>24,5</td>
<td>11</td>
<td>2,0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>TS</td>
<td>R. arm &amp; trunk</td>
<td>8,5</td>
<td>12</td>
<td>1,5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>FP</td>
<td>R. hand</td>
<td>21,0</td>
<td>9</td>
<td>1,5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SSw</td>
<td>R. hand (minus two fingers)</td>
<td>18,0</td>
<td>8,5</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>EH</td>
<td>Chest, arms, back</td>
<td>9,5</td>
<td>9,5</td>
<td>2,0</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CG</td>
<td>R. hand (palmer)</td>
<td>22,0</td>
<td>10</td>
<td>0,5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NR</td>
<td>Knee</td>
<td>20,5</td>
<td>8</td>
<td>2,0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>WI</td>
<td>Face, arms, chest</td>
<td>21,5</td>
<td>10</td>
<td>0</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>SA</td>
<td>Face (corner mouth)</td>
<td>21,5</td>
<td>8</td>
<td>1,0</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>JD</td>
<td>Face, scalp</td>
<td>14,5</td>
<td>10</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IA</td>
<td>Head, arms, hands</td>
<td>24,5</td>
<td>3</td>
<td>4,0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CM</td>
<td>Leg, ankle</td>
<td>23,0</td>
<td>8</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>GE</td>
<td>Chest &amp; neck</td>
<td>15,5</td>
<td>7,5</td>
<td>0,5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>IA</td>
<td>Face, limbs, trunk</td>
<td>24,5</td>
<td>12,5</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CA</td>
<td>L. hand</td>
<td>15,5</td>
<td>10</td>
<td>2,5</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SSm</td>
<td>L. hand</td>
<td>17,5</td>
<td>9</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>LP</td>
<td>Lower face &amp; neck</td>
<td>11,0</td>
<td>10</td>
<td>2,0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SSa</td>
<td>Arms</td>
<td>13,5</td>
<td>8,5</td>
<td>1,5</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 26
Comparison of the Physical-Self Subscale, Body-Image Disturbance & Aggression Scores

Notes:

(1) The physical-self subscale scores represent the mean of the subscale's pre- and post-test scores.

(2) The columns headed "Pre" and "Post" represent responses, in pre-tests and post-tests respectively, to items in the physical-self subscale which dealt with that area burned as was the case for each individual subject. A tick indicates that the subject expressed satisfaction with the burned area and did not wish for any change thereto, whereas a cross indicates the opposite.

(3) Body-image disturbance and aggression scores represent the mean of the pre- and post-test combined scores for "other" and "self" drawings of the D.A.P. test (see page 115).
(1) Except for JD and LP, all facially scarred subjects had high scores on the physical-self subscale.

(2) A number of subjects had high scores on the physical-self subscale as well as body-image disturbance and aggression scores. This finding is seemingly contradictory since one would expect subjects showing dissatisfaction with their bodies (high body-image disturbance and aggression scores), also to indicate dissatisfaction by scoring low on the physical-self subscale.

(3) A surprising number of subjects expressed satisfaction with that part of their body disfigured by burn (in that part of the physical-self subscale that referred to the burned area). In some cases this would seem to conflict with the high scores for body-image disturbance and aggression.

BEHAVIOUR AND ADJUSTMENT

The data contained in the Adaptation Questionnaire were analysed and set out in Table 27 (page 154).

Ten of the 18 burned subjects were identified as having behavioural or adjustment problems in terms of the behaviour reported in the questionnaire by parents and school
principals. In the process of identifying behaviour or adjustment problems, due regard was given to the frequency with which behaviour occurred and the seriousness of such behaviour.

It follows, then, that the eight subjects not represented in the table, were excluded either because any "maladaptive" behaviour occurred in isolation and/or because it was not considered to be of a serious nature, such as, e.g. the lighting of fires, self-abusive behaviour, etc.

This method of setting out behaviour is employed since, as was discussed earlier, behaviour is not readily amenable to statistical analysis.

Crosses in columns opposite a particular behaviour indicate that the behaviour concerned was considered maladaptive.
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>TS</th>
<th>CA</th>
<th>AB</th>
<th>CM</th>
<th>EH</th>
<th>GE</th>
<th>NR</th>
<th>WI</th>
<th>SSw</th>
<th>FP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Refuses to take turns</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not share</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Becomes upset if does not get own way</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Does anything to make friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Holds hands with everyone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is afraid of strangers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Uses threatening gestures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Causes indirect injury to others</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pushes, scratches or pinches others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kicks, strikes or slaps others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses objects as weapons</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spits on others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Throws objects at others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hurts animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Destroys own possessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tears or chews own clothing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Destroys others' possessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Breaks windows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attempts to or sets fires</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Stamps feet while banging objects, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cries and screams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Throws self to floor and screams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tells untrue or exaggerated stories about others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teases or makes fun of others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Tries to tell others what to do</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demands that things be done for him</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Causes fights amongst others</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pushes others around</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Interferes with others' activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Description</td>
<td>Subject</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TS</td>
<td>CA</td>
<td>AB</td>
<td>CM</td>
<td>EH</td>
<td>GE</td>
<td>NR</td>
<td>WI</td>
<td>SSw</td>
<td>FP</td>
</tr>
<tr>
<td>17</td>
<td>Upsets others' work</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Snatches things out of others' hands</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Uses hostile language</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Swears or uses obscene language</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Threatens others with violence</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>18</td>
<td>Gets upset if given a direct order</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Refuses to work on assigned tasks</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Does the opposite of what is suggested</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Plays deaf and does not follow instructions</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>19</td>
<td>Resents people in authority</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Hostile towards people in authority</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Mocks people in authority</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>20</td>
<td>Attempts to run away from home or school</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Runs away from home or school</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>24</td>
<td>Timid and shy in social situations</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Does not mix well</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Hides face in social situations</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Likes to be alone</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>29</td>
<td>Does not want to be touched</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Screams if touched</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>30</td>
<td>Bites or cuts self</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Slaps or strikes self</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

* Unacceptable Habits
** Self-Abusive Behaviour
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Blames own mistakes on others</td>
<td>TS CA AB CM EH GE NR WI SSw FP</td>
</tr>
<tr>
<td></td>
<td>withdraws or becomes sullen when thwarted</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>becomes upset when thwarted</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>throws temper tantrums when does not get own way</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>35</td>
<td>Complains of unfairness</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>complains &quot;nobody loves me&quot;</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>says &quot;people talk about me&quot;</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>says &quot;people are against me&quot;</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>36</td>
<td>Imagines physical ailments</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>acts sick when recovered</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>37</td>
<td>Changes mood without apparent reason</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>cries out when asleep</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>cries for no apparent reason</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>seems to lack emotional control</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>Other</td>
<td>Vomits when upset</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>bad dreams</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>people talk of disfigurement</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>sleeps with light on</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>enuresis since burn</td>
<td>x x x x x x</td>
</tr>
<tr>
<td></td>
<td>head and stomach aches</td>
<td>x x x x x x</td>
</tr>
</tbody>
</table>

Table 27
Selected Analysis of Burn Subjects' Behaviour
This chapter can be seen to have two main thrusts. Firstly, the statistical testing of hypotheses—including the effect of role-playing on the various components of self-concept. This will be that part of the research dealing with intervention. Secondly, the building-up of a profile of the burned child in terms of the significance of the disfigurement to the child, behaviour, coping mechanisms, etc. These two areas will be discussed jointly at the end of the chapter.

INTERVENTION PROGRAMME

Statistically, analysis of the results offered little support for the hypotheses in general. Some trends, however, did offer evidence indicating that further testing of some of these hypotheses could prove fruitful. This will be discussed, in detail, later.
Hypotheses 1 and 2

The burned children taking part in the investigation showed an average increase of 5.5% in their overall self-concept score compared with the non-burn control group children who showed a decrease of 0.48%.

Although statistically insignificant at the 0.05 level, it was found that there was a difference between pre and post-test scores at the 0.10 level. This result, in which the burn groups that participated in the programme and the non-burn group which did not, statistically, differ among themselves and showed an uniform increase in overall self-concept, is surprising.

It could be expected that a programme which offers enrichment would increase the self-esteem of the burned children participating in it due to, amongst other things, the deprived background most of these children have in common (Benians, 1974; Borland, 1967; Galdston, 1972; Long, 1961; Caudle, 1970; Williams, 1958; De Kock, 1979; De Wet, Davies and Cywes, 1977; etc.) and Manganyi (1970) and Burnes' (1970) findings that individuals coming from deprived backgrounds had significantly lower self-esteem than did individuals not coming from a deprived background. Looking at this hypothesis in isolation, it would indeed appear as if this was the case. Unexpectedly, however, the non-burn
control group, statistically, showed no difference from the burn groups.

Hypothesis 1, then, that the burn groups would show a significantly greater increase in overall self-concept due to enrichment provided by the programme, when compared to the non-burn control group was not supported by the results.

As the burn treatment group's increase on overall self-concept was 5.72% and that of the burn control group was 5.28%, no significant difference was found between overall self-concept for the two groups. No significant increase in overall self-concept, attributable to specific enrichment properties of the D.U.S.O. programme was, therefore, found.

Hypothesis 2, that the burn treatment group would show a significantly higher increase in overall self-concept, when compared with the burn control and non-burn control groups, due to the enrichment value of the D.U.S.O. programme as such, is, therefore, not supported by the data.

Hypothesis 3

Hypothesis 3, that the burn treatment group of children would show a significantly greater increase on the social-
The burned children taking part in the investigation showed an average increase of 7.13% on their social-self subscale of self-concept compared with a 3.27% decrease by the children in the non-burn control group. Of particular note is that the children participating in the D.U.S.O. programme's social-self subscore increased by 10.10% as opposed to an increase of only 4.15% for the burned children not participating in the D.U.S.O. programme. Although, strictly speaking, incorrect since the interaction effect was just under the critical value of F at the 0.10 level, further analysis was carried out in search of broad trends. This was fortunate since it was found that the burn treatment group showed a significant increase (p < 0.05) in social-self scores following treatment. This trend can be seen as lending support to the findings of Eldridge et al. (1972), that the D.U.S.O. programme has positive results on the understanding and acceptance of the self, and Finley (1973) quoted in Bagg (1975), that the programme is successful in developing social awareness.

Hypothesis 4

Hypothesis 4, that the burn treatment group of children
would show a significantly greater increase on the parental-self subscale of self-concept when compared with the children in the burn control and non-burn control groups, was not supported by the data.

The burn control group of children showed an average increase of 4.21% on their parental-self subscale of self-concept, the non-burn control group of children an increase of 2.81%, while the burn treatment group of children showed no change. No trend was discernible.

**Hypothesis 5**

Hypothesis 5, that the burn treatment group of children would show a significantly greater increase on the physical-self subscale of self-concept when compared with the children in the burn control and non-burn control groups, was not supported by the data.

The burned children taking part in the D.U.S.O. programme had an average increase on the physical-self subscale of self-concept of 8.72%. The burned children not participating in the D.U.S.O. programme showed an increase of 3.21%, while the non-burn control group of children showed an average decrease of 1.5%.

Since the interaction effect was found to be significant at
the 0,10 level, data were further analysed in an attempt to seek broad trends. Analysis of Simple Main Effects revealed two significant effects.

Firstly, a trend was found at the 0,10 level of significance for the burn treatment group, the burn control group and the non-burn control group to differ at the pre-test level. In an attempt to find out where the difference lay, a Tukey's Pairwise Comparison was conducted. Unfortunately, this proved futile since no difference was found at the 0,05 level, and because no 0,10 level of significance could be found for Tukey's Pairwise Comparisons. Although unsatisfactory, it was necessary to assume that the difference lay between the burn groups and the non-burn control group. This, it is submitted, is not an unreasonable assumption when the actual t' values (see Appendix) of the Tukey's Pairwise Comparisons are borne in mind.

This trend would seem to support the findings of Weininger, Rotenberg and Henry (1972) and Wysoki and Whitney (1965) (quoted in Manganyi, 1970), who found that physically handicapped children's body-images differed from those of physically normal children.

The second finding resulting from the Simple Main Effects analysis, was that the burn treatment group showed a significant \( p < 0,05 \) increase in physical-self scores following treatment.
This trend lends support to the positive effect of the D.U.S.O. programme in the accepting and understanding of the self generally, and the acceptance of limitations or weaknesses specifically.

**Hypothesis 6**

Hypothesis 6, that the children in the burn treatment group would show a significantly greater increase on the school-self subscale of self-concept, when compared with the children in the burn control and non-burn control groups, was not supported by the data.

The burn treatment group of children showed an average increase on the school-self subscale of self-concept of 3,68%, the burn control group of children an increase of 3,43%, while the non-burn control group children showed a decrease of 2,08%. No trend was discernible.

**Hypothesis 7**

Hypothesis 7, that the burn treatment group of children would show a significant decrease in body-image disturbance scores on the Draw-a-Person test when compared with the burn control and non-burn control groups of children, was not supported by the data.
As the burn treatment group's body-image disturbance score decreased by 8.9%, the burn control group's increased by 6.64%, while the non-burn control group's score decreased by 9.62%, no trend was discernible.

**Hypothesis 8**

Hypothesis 8 posited that the burn treatment group of children would show a significant decrease in aggression scores on the Draw-a-Person test, when compared to the scores of the burn control and non-burn control groups.

The burn groups both increased their aggression scores by 9.91%, while the non-burn control group decreased its aggression score by 9.02%. These figures, however, should be treated with caution since low initial scores meant that even slight changes may be magnified out of proportion.

That this was in fact the case is indicated by the lack of statistical support for the hypothesis. No trends were discernible.

**ROLE-PLAY**

Although no hypotheses dealt expressly with the effect of role-play, it must be borne in mind that role-play forms
an important part of the D.U.S.O. programme (Dinkmeyer, 1970). All hypotheses, except Hypothesis 1, concern the effect of the D.U.S.O. programme and can, therefore, be seen, to a large extent, as involving the effect of role-play on the various components of self-concept, body-image disturbance and aggression scores on the D.A.P. test.

It was found that role-playing, as a part of the D.U.S.O. programme, statistically, had no effect on overall self-concept scores, parental-self subscale scores, school-self subscale scores, and aggression and body-image disturbance scores on the D.A.P. test.

After further analysis following the finding of significance for interaction at the 0,10 level, it was found, however, that scores on the physical-self and social-self subscales lent support, at the 0,05 level of significance, to a general (although not stated expressly) hypothesis that role-playing, as incorporated in the D.U.S.O. programme, would positively effect self-concept scores.

In the case of both the physical-self and social-self subscale analyses it was found that the burn treatment group of children (who took part in the role-playing activities of the D.U.S.O. programme) showed a tendency to increase in physical-self and social-self scores following the programme. These findings can be seen to add support
to those of Eldridge et al. (1972) that the D.U.S.O. programme showed positive effects in nurturing the understanding and acceptance of the self; and of Cleminshaw (1973), Dinkmeyer (1970) and Finley (1973) who found that the D.U.S.O. programme could effectively be used as a means of creating self-awareness.

PROFILE OF THE BURNED CHILD

Socio-economic data were collected, both formally and informally, in an attempt to draw a profile of the burned child. The additional data elicited by the Adaptation Questionnaire, in the form of asides, notes and requests from parents/guardians provided the formal data. Informal data were collected from the writer's telephone conversations with parents/guardians before the start of the programme and from chats held with parents/guardians and siblings both before and after the daily sessions.

Nor surprisingly, the social background of the burned children taking part in this study follows the pattern set out by the various writers in this field. Their families tended: to have housing difficulties with overcrowding (Borland, 1967; Caudle, 1970; Williams, 1958; De Kock, 1979; and De Wet, Davies and Cywes, 1977); to be large (Benians, 1974; and Borland, 1967); to have an absent
parent (Borland, 1967; Goldston, 1972; and Long, 1961); and to have an unskilled or semi-skilled wage-earner (Feck, 1978; Benians, 1974; Jensen, 1959; Martin, 1970; and Williams, 1958).

In addition, it was found that there was a tendency for not only a single parent, but also for both parents, where a family unit was intact, to have to work due to economic necessity. This meant that in many cases children were looked after by grandparents, aunts, etc. In a few cases, children were in foster care.

As stated earlier, various components of the statistical data were combined in tabular form in an attempt to answer some of the questions regarding the significance of disfigurement for the burned child, coping strategies employed and adaptation. These data appeared in Table 26 and this table is reproduced here for convenience (see overleaf).

A word of caution would not be out of place here. Because of the small number of subjects taking part in this investigation and other limitations to be discussed later, inferences made from the table are not meant to be definitive, but are merely an attempt to analyse the data meaningfully in terms of the findings of other writers. The philosophy behind this procedure is to establish whether the subjects show trends, similar to those already documented, and to
<table>
<thead>
<tr>
<th>Name</th>
<th>Area Burned</th>
<th>Physical Subscale</th>
<th>Body-Image Disturbance</th>
<th>Aggression</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>Neck</td>
<td>24,5</td>
<td>11</td>
<td>2,0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>TS</td>
<td>R. arm &amp; trunk</td>
<td>8,5</td>
<td>12</td>
<td>1,5</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>FP</td>
<td>R. hand</td>
<td>21,0</td>
<td>9</td>
<td>1,5</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>SSw</td>
<td>R. hand (minus two fingers)</td>
<td>18,0</td>
<td>8,5</td>
<td>0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>EH</td>
<td>Chest, arms, back</td>
<td>9,5</td>
<td>9,5</td>
<td>2,0</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>QG</td>
<td>R. hand (palmer)</td>
<td>22,0</td>
<td>10</td>
<td>0,5</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>NR</td>
<td>Knee</td>
<td>20,5</td>
<td>8</td>
<td>2,0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>WI</td>
<td>Face, arms, chest</td>
<td>21,5</td>
<td>10</td>
<td>0</td>
<td>x</td>
<td>√</td>
</tr>
<tr>
<td>SA</td>
<td>Face (corner mouth)</td>
<td>21,5</td>
<td>8</td>
<td>1,0</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>JD</td>
<td>Face, scalp</td>
<td>14,5</td>
<td>10</td>
<td>0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>LA</td>
<td>Head, arms, hands</td>
<td>24,5</td>
<td>3</td>
<td>4,0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>CM</td>
<td>Leg, ankle</td>
<td>23,0</td>
<td>8</td>
<td>0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>GE</td>
<td>Chest &amp; neck</td>
<td>15,5</td>
<td>7,5</td>
<td>0,5</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>IA</td>
<td>Face, limbs, trunk</td>
<td>24,5</td>
<td>12,5</td>
<td>0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>CA</td>
<td>L. hand</td>
<td>15,5</td>
<td>10</td>
<td>2,5</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>SSm</td>
<td>L. hand</td>
<td>17,5</td>
<td>9</td>
<td>0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>LP</td>
<td>Lower face &amp; neck</td>
<td>11,0</td>
<td>10</td>
<td>2,0</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>SSA</td>
<td>Arms</td>
<td>13,5</td>
<td>8,5</td>
<td>1,5</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Table 26
Comparison of the Physical-Self Subscale, Body-Image Disturbance & Aggression Scores

Notes:

(1) The physical-self subscale scores represent the mean of the subscale's pre- and post-test scores.

(2) The columns headed "Pre" and "Post" represent responses, in pre-tests and post-tests respectively, to items in the physical-self subscale which dealt with that area burned as was the case for each individual subject. A tick indicates that the subject expressed satisfaction with the burned area and did not wish for any change thereto, whereas a cross indicates the opposite.

(3) Body-image disturbance and aggression scores represent the mean of the pre- and post-test combined scores for "other" and "self" drawings of the D.A.P. test (see page 115).
look for information which may offer clues as to the significance of the disfigurement to the child, possible coping mechanisms, etc.

What strikes one immediately, on viewing the table, is the extremely high incidence of cases in which the subjects have indicated satisfaction with those parts of their bodies which have been disfigured by burns. This lack of desire to alter these body parts is common to both those subjects who scored high on the physical-self subscale, as well as those with low scores. This is surprising in the cases of T.S., J.D., G.E., C.A., L.P. and S.S., who had particularly low scores on the physical-self subscale, since one would expect that subjects with such low scores also would note dissatisfaction with their damaged bodies. It can be noted here that three of these subjects (T.S., G.E. and C.A.) had adjustment/behaviour problems as reflected by Table 27.

As earlier indicated by Vigliano, Hart and Singer (1964), it was found that children were reluctant to talk about the reality of their disfigurement. This introduces the possibility that information obtained by overt means, such as that obtained from the self-concept questionnaire, may not be a true reflection of, in this case, the significance of disfigurement to the child. Although, as will be argued further on, it is not believed that this is the
situation, it does, nevertheless, highlight the need for another source of information. One way of doing this is to employ projective techniques such as the D.A.P. test. Here, we can compare physical-self scores with scores for body-image disturbance and aggression in the D.A.P. test.

The value of such a procedure can be established by glancing across the scores of subjects I.A., A.B., Q.G., C.M., F.P., W.I. and S.A., who all had high physical-self scores as well as high scores on body-image disturbance and aggression. These facts, together with the point that, except for subjects W.I. and S.A., all these subjects professed to be satisfied with their bodies, indicate that this area needs looking at closely.

Chang and Herzog (1976) found that psychological disability was related more to the percentage body area burned than to whether the burn was visible or not. This finding was later supported by Andreason (1971, 1972). Despite this, however, the matter is not entirely clear, for Giljohann (1981) found that many had difficulty in working through problems associated with facial disfigurement. Likewise, Murray-Clarke and Martin (1979) found that children, who were able to cover their disfigurement with clothes, were better able to adjust. This is not really surprising for, as Bernstein (1976) and Constable and Bernstein (1979) have pointed out, there is something in the inherent nature of a
facial injury that makes good adjustment unrealistic. This belief stems from their seeing a damaged face as being a significant obstacle in development of an acceptable body-image and self-concept.

In this regard, the research findings were interesting. Firstly, of the subjects identified as having behavioural or adjustment problems (Table 27), five (T.S., S.Sw., W.I., F.P. and C.A.) had burn scars that could not be covered by clothes, e.g. a high neckline, long trousers, etc. Of the remainder of the subjects with behavioural problems, three (E.H., C.M. and G.E.) could be considered to have a large area burned compared to other subjects, while the remaining two subjects (A.B. and N.R.) were considered to have relatively minor burns which could be hidden by clothes. Unfortunately, to analyse the percentage of, for example, subjects with "visible" burns with behavioural problems would be misleading as some of these burns are slight (e.g. subject S.A.).

A more interesting finding was that, contrary to what might be expected in view of the reports by Giljohann (1981), Bernstein (1976) and Constable and Bernstein (1979), the three subjects with the most extensive scarring to face and head (L.A., J.D. and I.A.) had no reported behavioural or adjustment problems. It was interesting to note that these children, unlike the others, came from a stable family
background where they were given plenty of warmth and support without being overprotected.* The effect of the support of a family in post-burn adjustment would seem to be a neglected area and this rather striking coincidence (stable family and no reported adjustment problems) may well indicate a fruitful area of research.

Having identified subjects with adjustment problems, it remains to explain the seemingly contrasting findings on the physical-self subscale and body-image disturbance and aggression ratings. Again, no definitive answer will be attempted. The reader is also reminded that no significant difference was found between the physical-self subscale, body-image disturbance and aggression ratings for the burn groups of children and the non-burn control group of children - although a tendency at the 0.10 level of significance was observed for the burned children to have lower scores on the physical-self subscale. Despite this, however, what follows is an attempt to identify variables that may be in operation.

The finding that there was no significant difference on the

*A good example is the case of I.A. I.A.'s mother and father refused to mollycoddle him and led an active social life in order for him to develop social skills and confidence. They told the writer that they were in the process of changing I.A.'s school lest he becomes set in a limited peer group.
scores and ratings mentioned above, raises a rather disturbing possibility. Manganyi (1970: 165), studying African paraplegics, found that both the paraplegics and the physically normal control group showed equally disturbed body-concepts. He points out:

"... the findings of a poorly cultivated, developmentally retarded body concept distinctly in the sphere of body-image pathology, can only be accounted for in terms of socialization experiences biased in the direction of field-dependent perception and indefinite body boundary features" (1970: 168).

The disturbing possibility is that it cannot be ruled out that similar factors play a role in the population group of this study.

The interpretation of the burned children's stated satisfaction with those areas of their body burned, as reflected by the physical-self subscale, presents problems. A number of possibilities are discussed and they are not meant to be mutually exclusive. These possibilities are purely speculative and are intended merely to highlight areas of future research.

Viewed in isolation, the responses to the items on the physical-self subscale could be seen as indicating the presence of the kind of maturity achieved through self-
acceptance, as proposed by Schneider (1976: 335). This self-acceptance may be assisted by the children treating certain aspects of the physical-self as being less self-relevant than other aspects of the self. Weininger, Rotenberg and Henry (1972) have suggested that children do not see themselves as being "final editions" and, as such, do not see their physical status as being permanent. Some support for this view was found by the fact that subject S.Sw. (as reported by his mother) believed that he would be getting "new fingers". Self-acceptance may, then, be assisted by non-salience, or the devaluation of the self-relevance of the damaged body part, which, in turn may be assisted by the belief that disfigurement was only temporary.

When children have made certain aspects of the self non-salient, it was hypothesized (page 63) that the second stage in adjustment was the maintenance of the self-esteem attained as a function of the self-acceptance achieved in the first stage. As discussed previously (pp. 50-53), self-esteem becomes threatened by the response of others to physical abnormality.

Goodenough (in Van Niekerk, 1972: 144) sees self-confidence as being anchored in the lack of focus on the self. Self-consciousness - the antithesis of self-confidence - is therefore seen as a source of insecurity. Any self-confidence
a handicapped child may have is threatened by the response of others which tends to focus attention on the handicap - something the child has already made non-salient. The result of the focus of others on handicap is that the child is put under pressure to move from an outer focus to an inner focus with its attendant self-consciousness and insecurity.

In order to manage this threat posed by others highlighting physical shortcomings, use is made of coping mechanisms. The coping mechanism to be involved was hypothesized (p. 66) as being that of selective attention in the form of a screening device which filters out information potentially harmful to self-esteem and self-confidence. This coping mechanism can be seen as operating in a fashion similar to that of Sullivan's (in Ziller, 1973: 137) conflict control mechanisms, the function of which he sees as being a mediator which transforms inputs in such a way as to be minimally disrupting to the self. Of direct relevance is Sullivan's conflict control mechanism "focal-awareness" which restricts the range of stimuli to which one is responsive in an attempt to avoid anxiety and establish equilibrium or consistency, retaining personal integration.

If we accept the existence of such a coping mechanism, it becomes patently obvious that, should the burned children have answered the physical-self items of the self-concept
questionnaire in a manner indicating dissatisfaction with those body parts disfigured, this would not have been consistent with the operation of the child's coping mechanisms. In other words, it would have clashed with the child's making of certain aspects of the physical non-salient as well as strategies employed to maintain self-esteem. The answers to items on the physical-self subscale indicating satisfaction with disfigured body parts can, therefore, be seen as a natural extension of the coping mechanism employed, i.e. selective attention.

The last point establishes why this process is labelled as a coping mechanism and not denial. The lack of the expressed desire to alter those disfigured parts of the body does not constitute "denial", defined by Calhoun (1972: 36) as a refusal to acknowledge a source of distress. The physical shortcoming, itself, is not a direct source of distress since this has been made non-salient by the devaluation of the importance of that particular aspect of the physical-self. The real source of distress is being acknowledged, namely the threat posed by others focusing on a child's handicap - presenting a threat to self-esteem and self-confidence through inner focus. What is hypothesized as taking place, when a child indicates satisfaction with the particular body part disfigured, is a natural attempt to reduce the threat to self-esteem, and to reduce anxiety; i.e. the professed satisfaction with those
parts of the body disfigured may be seen as a natural extension of a coping mechanism.

As mentioned earlier, however, the above is argued in isolation from the rest of the data. When one considers the body-image disturbance and aggression scores there would appear to be a contradiction that needs to be explained. These scores, particularly the body-image disturbance scores, would seem to indicate dissatisfaction with aspects of the physical - even though the opposite seemed true from answers to items of the physical-self subscale. Although, at first glance, this seems to indicate some contradiction in data, this may, however, not be the case.

If we look at Bahnson's first model of self-concept, (Fig. 2, page 32), we see that Bahnson views body-image as being represented in the three-dimensional area characterized by the unconscious, early development and the physical-conative referent of the self. Again, if we look at Bahnson's second model of the self (Fig. 3, page 34), we see that body-image, for the ages of 7 - 12 years (the age range of the burn subjects) is seen as being largely of an unconscious nature, with body-image, or the somatic self, being below other layers of the multi-layered self.

It follows, then, that the expressed satisfaction with
disfigured body parts, as reflected by the answers to the physical-self subscale, and the rating on body-image disturbance and aggression, need not be considered contradictory. What we are seeing is information from two distinct sources – the conscious (as tapped by the physical-self subscale) and the unconscious (as tapped by the body-image disturbance and aggression ratings). As these two sources are not mutually exclusive, the data obtained from both of them should be considered valid.

**SUMMARY OF DISCUSSION**

Statistical data failed to support the hypotheses. To investigate the possibility of broad trends, however, the $0.10$ level of significance was adopted and this led to findings on three self-concept scales.

It was found that overall self-concept scores increased from the pre- to post-test measurements for the burn treatment group, the burn control group and the non-burn control group.

The level of significance for the social-self subscale was shown to be extremely close to the required critical value. On further analysis (Simple Main Effects), it was found that the burn treatment group showed a significant increase
in social-self subscale scores at the 0.05 level of significance following participation in the D.U.S.O. programme.

Further analysis of the physical-self subscale, after finding a significant interaction effect at the 0.10 level of significance, produced two findings. Firstly, and of lesser importance, an indication was found that the two burn groups tended to have lower physical-self scores in the pre-test condition. The more important finding for the intervention aspect of this study was the finding that the Simple Main Effects analysis showed the burn treatment group to have a significant increase in physical-self subscale scores, following participation in the D.U.S.O. programme.

Even though no specific hypotheses were made regarding the effect of role-play on self-concept, it was, nevertheless, as a central component of the D.U.S.O. programme, tested by the hypotheses, albeit indirectly. Although no statistical support could be found for the effect of role-play on self-concept, it was noted that since the success of the D.U.S.O. programme (and role-play) is well documented (Eldridge et al., 1972; Finley, 1973; Cleminshaw, 1973; and Dinkmeyer, 1970), an explanation should be sought for the lack of positive findings.

It was found that the burned subjects taking part in the
study, came from the type of background sketched by overseas writers such as Borland (1967), Caudle (1970), Williams (1958), Feck (1978), Jensen (1959), Martin (1970), etc., as well as local writers such as De Kock (1979) and De Wet, Davies and Cywes (1977). It was noted, in addition, that in most cases both of the children's parents were forced to work through economic necessity - leaving their children in the care of members of the extended family.

It was seen that the majority of the burned children expressed no desire to alter that part of their body disfigured by burn. It was argued that this could be seen as a natural extension of a coping mechanism. The coping mechanism was hypothesized to take the form of a process of selective attention which aided the child to maintain equilibrium and minimize the threat to self-esteem posed by others focusing on the physical abnormality which the child has made non-salient or less self-relevant than other aspects of the self, with the resultant self-consciousness and insecurity.

Ten of the burn subjects were identified as having behavioural or adjustment problems as reflected by the Adaptation Questionnaire. Because of the small number of subjects, however, no conclusion could be drawn regarding the role variables such as age, gender, total body area burned, the visibility of the burn, etc. could have on adjustment.
Of great interest, here, was the finding that the three subjects with most extensive burns to their faces and head had no reported behaviour or adjustment problems. These three subjects had in common the fact that they came from stable families which offered them warmth and support without being over-protective.

It was argued that the burned children's expression of satisfaction with their burned bodies did not clash with the indications of dissatisfaction reflected in body-image disturbance and aggression ratings. This viewpoint stemmed from the belief that two distinct sources of data were involved, namely, the unconscious and the conscious. Data obtained from these two sources were not seen as being mutually exclusive.

All observations made and speculations about mechanisms that may be in operation in the process of adjustment, were made despite the fact that no statistically significant difference was found between the burn groups of children and the non-burn control group for all measures. Trends were, however, found indicating that there was a tendency for the D.U.S.O. programme to increase the social-self and physical-self scores of the burned children taking part therein. The finding of these trends was seen as being of importance to the intervention aspect of the study.
A confounding factor was seen to be the possibility that results, particularly the body-image disturbance scores, reflect equally disturbed body-images for burn and non-burn groups of children. Following Manganyi (1970: 168), it was hypothesized that this could be accounted for in terms of socialization experiences biased in the direction of field-dependent perception and indefinite body boundary features.

The limitations of this study will now be discussed.
LIMITATIONS OF STUDY

Having outlined interpretations of the data, it becomes essential to scrutinize closely the research methodology, psychometric tools, etc. in order to establish how valid those interpretations may be. This will be done by, firstly, looking at the general methodology and then at psychometrics.

Unfortunately, the number of subjects was too small to allow for the making of inferences about the effect of variables such as age, gender, type and severity of burn, time-lapse since burn, etc. on psycho-social adjustment. Many factors militated against obtaining a larger group of burned subjects. An overriding factor seemed to be the general lack of interest, on the part of parents, as reflected by the poor response. Over 60 letters, together with self-addressed, return envelopes, setting out the aims of the research, were sent to the parents of potential subjects. Twenty-two replies, expressing
an interest in taking part in the programme, were received. Eventually, only 18 took part in the programme. Although it is possible that full-time employment of parent(s) may have made it impossible to attend the programme, this would not account for 65% of the parents not replying.

The list of potential subjects, itself, was limited by a number of research requirements. These were that the subjects: be "Coloured"; have an area of their body burned, which would normally be visible; that their ages ranged between seven and 12 years; and that they all be Afrikaans speaking. This list was also limited for practical reasons, to those children who resided within reasonably easy reach (geographically and transport-wise) of the Red Cross Children's Hospital (Rondebosch).

The most important limitation of the study was that, because of school and school extramural activities, subjects were only able to attend the programme during school holidays. This, and the poor response, meant that the programme had to be fitted into two school holidays (April and June-July holidays). This in turn meant that the maximum consecutive period for which the programme could run was five days. For this reason the D.U.S.O. programme generally, and role-playing specifically, cannot be seen to have been adequately tested. What is important to note here, however, is that although no evidence could
be found for the positive effect of the D.U.S.O. programme and role-playing, this should not be seen as an indicator for the rejection of the various hypotheses (hence the use of the term "failed to support hypothesis" as opposed to "hypothesis is rejected") since the hypotheses are not considered to have been properly tested.

The Self-Concept Questionnaire for Primary School Pupils (Afrikaans) was seen as being acceptable for the purpose of this study since it would only be used for making comparisons between subjects and not as a means of weighing data against established norms. On comparison, however, of the self-concept scores for both burn groups of subjects and the non-burn control subjects with the norms for Whites, it was disturbing to note the extent of the difference between the scores. For convenience of comparison, the data are set out in Table 28 overleaf.

The unexpected degree of difference between the scores of the burn groups and non-burn control group and the White norms indicates a problem arising from the use of a self-concept scale not standardized for the population under study. Although it was argued that the high scores on the physical subscale of the burn subjects may be seen as a natural extension of a coping mechanism, it is difficult to extend this argument to the high scores on the other subscales - especially the parental and school subscales.
<table>
<thead>
<tr>
<th>Scale</th>
<th>Maximum Score</th>
<th>Whites*</th>
<th>Coloured</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$\bar{x}$</td>
<td>$S$</td>
</tr>
<tr>
<td>Parent</td>
<td>20</td>
<td>10,2</td>
<td>2,43</td>
</tr>
<tr>
<td>School</td>
<td>20</td>
<td>9,1</td>
<td>2,33</td>
</tr>
<tr>
<td>Social</td>
<td>20</td>
<td>11,8</td>
<td>2,84</td>
</tr>
<tr>
<td>Physical</td>
<td>25</td>
<td>10,3</td>
<td>2,98</td>
</tr>
<tr>
<td>Overall</td>
<td>85</td>
<td>41,4</td>
<td>8,37</td>
</tr>
</tbody>
</table>

Table 28

The only explanation that readily springs to mind is that these higher scores (for all subjects) reflect an attempt at coping with what Manganyi (1970) sees as possibly being a state of insecurity stemming from a bias towards field-dependent perception as embodied in socialization experiences. This would mean, should we accept this hypothesis, that the self-concept scale validly reflects the Coloured children's field-dependent perception and/or was not sensitive enough to measure any difference between the self-concept scores of the burned and non-burned children.

The Adaptation Questionnaire was shown to be an effective tool for gauging overall behaviour patterns. The

information gathered in this way proved to be accurate as it was checked against informal data collected in conversations with parents/guardians and siblings.

The questionnaire, however, was not used, as was planned, as a method of determining whether any changes were long-term, as response to the second questionnaire was poor. It can be hypothesized that the poor response was due to the questionnaire not being the appropriate tool to use when dealing with people who rely essentially on verbal skills. Although this may well be the case, it does not explain the poor response from school principals. The writer believes that a natural dislike for filling in forms and a lack of motivation would probably provide the answer.

Ideally, the Adaptation Questionnaire should have been filled in during an interview by the interviewer. This would have had the advantage of having the (interviewer's) uniform interpretation of the questions/items and would have avoided any possible confusion which may otherwise arise. It would have meant, further, that there would not have to be reliance on questionnaires being returned by post. Unfortunately, due to limited time, this was not possible.
IMPLICATIONS OF FINDINGS

The finding of a tendency for the burned groups of children to score lower on the physical-self subscale of self-concept, when compared to the non-burned control group, would seem to follow the pattern found by Wysoeki and Whitney (1965) (in Manganyi, 1970) and Weininger, Rotenberg and Henry (1972). Since, however, as Weininger, Rotenberg and Henry point out, studies do not reveal any consistent results regarding body-image and self-concept, this should be only seen as indicating an area needing far more research.

The apparent clash between expressed satisfaction with those parts of the body disfigured and the body-image disturbance and aggression scores on the D.A.P. test highlights the fact that data can be obtained from what has been hypothesized to be two, distinct scores - the conscious and the unconscious. The comparison of data from these two sources may well be a fruitful, future area of research. This may reveal an interesting insight into the coping mechanisms employed by burned children.

In Bahnson's first model (Fig. 2, page 32) of the self, we see body-image as being represented by the unconscious, early development and the physical-conative referent of the self. Similarly, Bahnson's second model (Fig. 3, page 34) of the self, body-image, for the ages of 7 - 12 years, is
seen as being largely unconscious. Bahnsen (1969), however, sees body-image again becoming dominant during puberty. At puberty, he sees the internalized defences, formed during latency, as being pushed aside by renewed (but differently organized) sexual sensitization. But, looking at Erikson's Psychosocial Stages, we see that body-image is not merely of a psycho-sexual nature, but can also be seen, at puberty and adolescence, to be of an intellectual nature. The two stages of importance, here, are Industry vs. Inferiority (co-operation and competition vs. fear of failing, and feelings of inadequacy), and Identity vs. Role Confusion (integration of identity vs. role-diffusion and lack of positive identity).

This raises an important question regarding the self-concept and body-image of burned children. Both Bahnsen's models of the self and Erikson's psychosocial developmental stages indicate that puberty and early adolescence may form a turbulent time for the burned child. It would, therefore, seem essential that any study dealing with the psycho-social adjustment of burned children should not just deal with children at an early age, as adjustment should be seen as an on-going process - very possibly, with adjustment problems reaching their peak during puberty and early adolescence. Any study, then, to be of optimum benefit, should be of a longitudinal nature: a study, in other words, studying the process of adjustment. Research of
this nature may give greater insight into "primary coping mechanisms" (those coping mechanisms employed when body-image is largely unconscious) and "secondary coping mechanisms" (those coping mechanisms employed during puberty and early adolescence when body-image is dominant and a search for identity requires resolution).

The importance of such an approach is clear from Bowden, Jones and Feller (1979: 21) who point out that, for a child, expectations and desires about appearance may not surface until young adulthood, meaning that the full impact of a burned child's change in appearance may not be experienced till years after the burn. Weininger, Rotenberg and Henry's (1972) suggestion that a child may not see himself as a "final edition" may play a role in the delay of the full impact of the reality of the burn. Evidence for such an eventual impact comes from Quinby and Bernstein (1971) who found that children studied by her developed major depression during adolescence. One might hypothesize, especially bearing in mind Erikson's two stages, that, in particular, those children disfigured facially would have problems during early adolescence and adulthood because of the important role the face plays in communication. As Friedenberg (1959: 65) states:

"- adolescent growth is seriously blocked by anything that keeps youngsters from responding specifically to one another".
The finding that the three subjects with the most extensive facial burns did not exhibit any adjustment or behaviour problems, together with the finding that they had the most stable family backgrounds, indicate another area for potentially fruitful research. Fowler (1979) lends support to this view when she states that parents are the most influential persons in the emotional recovery of their child. She sees that the child's future adjustment, as well as the child's acceptance of scarring, as being closely related to the attitude of the parent.

The advantages of using role-play as a diagnostic tool (Corsini, 1966: 83; Borgatta, 1951) were confirmed by the observations of the writer that, in role-play, the subjects' reactions closely reflected their behaviour in real-life, as reported by parents and school principals in the Adjustment Questionnaire and by informal conversation with siblings. In this regard, following the suggestion of West and Shuck (1978) to use dolls to enable children to "act out" feelings and experiences, the use of puppets proved to be valuable since subjects' replies to questions regarding their behaviour were more closely related to the behaviour patterns reflected by the Adjustment Questionnaire, when the questions and answers were channelled through a puppet.
FUTURE RESEARCH

If research into the psycho-social adjustment to burns is still in its infancy (Bowden, Jones and Feller, 1979: 35), then research in South Africa has yet to be born.

Bowden, Jones and Feller (1979: 3) categorized the articles they studied as being either of an Advocacy nature (dealing with psychological reaction to burn, advocating treatment, and discussing important issues regarding the psycho-social management of the patient), clinical (observation of emotional states of the patient and his family), or empirical (the investigation of various issues of social-psychological adjustment and functioning within a more systematic framework). Most work, according to Bowden, Jones and Feller, has been of an advocacy and clinical nature, with only 49 articles being of an empirical nature - most of them having methodological flaws. This writer could not trace any South African article that could be categorized as being of an empirical nature.

There would seem to be a great need, then, for properly formulated, systematic research into the psycho-social adjustment of burned children. The lack of such empirical research in South Africa can be seen as being contributed to by lack of staff, research funds, and possibly (as Bowden, Jones and Feller (1979: 35) found), due to the
fact that those persons, who were in a position to research a particular burn problem, are frequently not those with a reliable background or knowledge of research methodology.

In the following discussion, the assumption is made that, when talking of burned children, we are talking of children who have the characteristics of the burned children set out in the profile of burned children (pp.89-91). In this regard, any future research will be seriously hampered by the lack of psychometric tools which are standardized for the children most likely to be burned.* Of great importance, here, would be measures of the various components of self-concept - particularly the physical-self or body-image. It is believed, therefore, that any research (empirical) into the psycho-social adjustment of children burned needs to be preceded by the development of appropriately standardized psychometric tools.

Future research will have to take cognisance of the possibility, flowing from Manganyi's (1970) hypothesis adopted for the findings of this research, that subjects' equally disturbed body-images reflect field-dependent

*In the South African context, this would mean children from ethnic groups such as the Coloureds, Blacks, etc. As separate cultural groups, the problems discussed would apply equally and, although the problems discussed refer to one group, it should be understood that the same problem exists, separately, for other groups.
perception based on socialization experiences. This factor will play an important role in an investigation of psycho-social adjustment of burned children since, as Hamburg (1953), Jackson (1974), Long (1964) and Andreason (1972) point out, each person brings with him the resources, problems and difficulties that he had prior to the burn (quoted in Bowden, Feller and Jones, 1979). Manganyi (1970: 171) states:

"It seems obvious that if an African becomes paraplegic, he superimposes a defective body image on an essentially under-developed one."

As a similar possibility has not been ruled out here, the importance of taking this factor into consideration cannot be ignored.

Manganyi's (1970: 171) belief that there is an urgent need for cross-cultural research, encompassing the significant factors in the development of body-image, particularly regarding body boundary characteristics and socialization experiences, in various cultures, would apply equally in the case of the body-image of burned children. Greater knowledge in this area may well prove to be a prerequisite for differentiating between body-image disturbance due to disfigurement and that due to socialization.

Following what has been discussed, areas of future research
will be briefly listed below. Firstly, research indirectly related to the psycho-social adjustment to burns. Secondly, research directly concerned with the psycho-social adjustment to burns.

**Indirect Research**

(1) Cross-cultural research, investigating the development of body-image with emphasis on body boundary characteristics and socialization experiences; and

(2) The development and standardization of relevant psychometric tools for the population groups forming the major portion of burn cases.

This research is considered to be a prerequisite for any meaningful future research into the psycho-social adjustment following burn.

**Direct Research**

Research into the psycho-social adjustment to burn should be of an empirical nature, and be systematic. Ideally, such research should be of a longitudinal nature, due to delay in the full impact of the burn, and the fluctuating importance of body-image in the formation of the self. Such research should investigate:

(1) The effect of age, gender, type and severity of burn, etc. on adjustment. Since inferences about
these variables require a large number of subjects, data from as many subjects as is possible should be obtained:

(2) The role of the family in adjustment - Of particular interest here would be the relationship between the attitudes to and acceptance of the burn by parents and sibling(s) and the attitudes and acceptance of the burned child;

(3) The significance of the burn to the child; and

(4) The use of coping mechanisms, from the adaptive to the maladaptive. Bearing in mind the renewal of dominance of body-image during puberty and early adolescence, what has been defined as "primary" and "secondary" coping mechanisms would be of especial interest.

SUMMARY STATEMENT

This study set out with the general goal of investigating the role of physical distinctiveness as a pertinent feature of self-concept, using the special case of burned children. Unfortunately, this goal was not realized since no significant differences were found between the burn and non-burn control groups on Draw-a-Person body-image disturbance and aggression scores, and the physical-self
Following Manganyi (1970), who found similar results when studying African paraplegics, it was hypothesized that this finding may reflect a state of insecurity stemming from a bias towards field-dependent perception as embodied in socialization experiences. It would seem that this is an area that will need exploring before any meaningful measurement of body-image and self-concept can take place for groups such as those studied here. As a result, it was recommended that cross-cultural research be undertaken in which the development of body-image, with emphasis on body boundary characteristics and socialization experiences, is investigated.

The second goal concerned the investigation of the possibility of improving the self-concept of the burned child by using the D.U.S.O. programme as a means of intervention. Hypotheses, dealing with various aspects of the intervention programme, were not supported by the data. One possibility that may account for this has been discussed above, while other possible contributory factors may be the use of a self-concept questionnaire not designed for the specific population, the limited time available for the intervention programme itself, etc. Two interesting trends did come to the fore however.
It was found that the burn treatment group showed an increase, significant at the 0.10 level, in both physical-self and social-self subscales following participation in the D.U.S.O. intervention programme. These results can be seen as indicating tentatively that burned children may benefit from participating in an intervention programme such as the D.U.S.O. programme.

The third goal of this study was to gain a clear picture of the burned child in the form of a burn profile. Data from various sources were combined and the comparisons made in this manner served to highlight a hypothesized coping strategy employed by the burned children. This coping mechanism was discussed in detail.

An interesting finding was that there was some evidence that a stable and supportive family was an important contributing factor in adjustment. This finding was remarkable for the fact that the children showing good adjustment and a supportive and stable family, were facially disfigured - i.e. children who theoretically had a poorer chance of good adjustment when compared to children not facially disfigured. Recommendations were made for future research in this area.

In summary, then, those sections of study which relied on
statistical support for proof, remained inconclusive due to weaknesses in study design and measurement which have been discussed. A tendency was found, however, indicating tentatively that burned children may benefit from participating in an intervention programme such as the D.U.S.O. programme.

The section dealing with a profile of the burned child flowed from the use of data generated by the intervention section of the study. This section proved to be the most fruitful one and a number of interesting points regarding the significance of the burn to the child, coping strategies and general adjustment and behaviour were brought to the fore.

A number of issues and problems were raised in all three sections of this study. These issues and problems, in turn, raised a number of questions that will have to be answered before research into the psycho-social adjustment of burned children in South Africa can become sophisticated.

These questions should not be seen as making such research more difficult - only more challenging.
REFERENCES


Copeland, L.P. A Controlled Investigation of the Reliability and Validity of Machover's Human Figure Drawing Projective Test. Amsterdam, N.V. Arbeiderspers, 1952.


De Kock, M. "The Cape Town Burn Profile", Burns, 1979, (5), 210-211.


Fisher, S. "Body Reactivity Gradients and Figure Drawing Variables" Journal of Consulting Psychology, 1959, 23, 54-59.


Hare, J.S. "Therapeutic Action Methods : Some Basic Descriptions and Distinctions". Cape Town, Unpublished Notes, 1976.


Jensen, J.D. "Preventive Implications of a Study of 100 Children Treated for Serious Burns" Paediatrics, October 1959, 623-630.


Laubscher, D.B. "Self-Concept and the Outcome of Development Programmes" Paper read at the National Psychology Congress held in Cape Town, 1981.


Murray-Clarke, A. "The Effect of Previous Thermal Injury on Adolescents" Burns, 1979, (5), 101-104.


Ritter, B. "Treatment of Aerophobia with Contact Desensitization" Behaviour Research and Therapy, 1969(a), 7, 41-45.


Swensen, C.H. "Empirical Evaluations of Human Figure Drawings" Psychological Bulletin, 1957, 19, 208-211.


Wagner, M. "Reinforcement of the Expression of Anger through Role-Playing" Behaviour Research and Therapy, 1968, 6, 91-95.


## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Appendix No.</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Letters to Parents of Potential Subjects</td>
<td>213</td>
</tr>
<tr>
<td>2.</td>
<td>List of Burned Subjects &amp; Area of Body Burned</td>
<td>216</td>
</tr>
<tr>
<td>3.</td>
<td>Matching of Subjects</td>
<td>218</td>
</tr>
<tr>
<td>4.</td>
<td>Letters to Burned Subjects' Parents &amp; School Principals re. Adaptation Questionnaire</td>
<td>220</td>
</tr>
<tr>
<td>5.</td>
<td>Adaptation Questionnaire</td>
<td>223</td>
</tr>
<tr>
<td>6.</td>
<td>Selected Stories Translated &amp; Adapted from the D.U.S.O. Programme</td>
<td>237</td>
</tr>
<tr>
<td>7.</td>
<td>Scoring Procedure for Body-Image Disturbance on the D.A.P. Test</td>
<td>261</td>
</tr>
<tr>
<td>8.</td>
<td>Example of Body-Image Disturbance &amp; Aggression Scoring</td>
<td>263</td>
</tr>
<tr>
<td>9.</td>
<td>Scoring Procedure for Aggression on the D.A.P. Test</td>
<td>266</td>
</tr>
<tr>
<td>10.</td>
<td>Raw Data</td>
<td>268</td>
</tr>
</tbody>
</table>
1. Letters to Parents of Potential Subjects
Geagte ouers,

Ons is besig met 'n navorsingsprojek in samewerking met die Departement van Kindergeneeskundige Chirurgie by die Rooikruis Hospitaal, in verband met die aanpassing van kinders wat brandwonde opgedoen het.

Die plan is om gedurende die skoolvakansie (5 April tot 9 April) vyf daaglike sessies met groepe kinders te reël. Die doel met hierdie sessies is om uit te vind wat hierdie kinders se probleme is, hulle ondervinding, ens. Ons hoop om op hierdie manier, in samewerking met die kinders, dat hulle hulle probleme beter sal verstaan en bekwaam te voel.

Ons vertrou dat hierdie sessies nie alleen tot voordeel sal wees vir die kinders wat daaraan deelneem nie maar sal ons ook in staat stel om ander kinders tot hulp te wees.

Natuurlik, hierdie projek kannie gedoen word sonder die belangrike deelname van die kinders nie en ons maak staat op u samewerking as ouers.

U kan met my in verbinding tree by telefoon gedurende kantoorure sowel as na-ure en ek sal bly wees om besonderhede in verband met hierdie sessies met u te bespreek. Ek stel ook belang om te verneem van enige spesifieke probleme wat u kind mag hê. Ek sluit hierby in ge-adresseerde koevert indien u my nie per telefoon kan kontak nie maar ek verkies dat u wel sal probeer om my liewer te skakel.

Ek sien uit daarna om van u te hoor.

Die uwe,

PAUL FROST, B.Soc. Sc.(Hons)
NAVORSER

--------------------------------------
KIND SE NAAM: ______________________________
SKOOL ______________________________

Ons wil graag hê ons kind moet bogenoemde sessies bywoon: [JA] [NEE]
Geagte Ouers,

As gevolg van die sukses van die groep-sessies wat in April plaasgevind het, het ons, in samewerkings met die Departement van Kindergeneeskundige Chirugie by die Rooikruis Hospitaal, besluit om verdere sessies te hou vanaf 28 Junie tot 2 Julie.

Soos in ons vorige brief verduidelik, vorm hierdie sessies deel van 'n navorsingsprojek in verband met die aanpassing van kinders wat brandwonde opgedoen het. Die doel van hierdie sessies is om uit te vind wat hierdie kinders se probleme is, hulle ondervindings, ens. Ons hoop om op hierdie manier te sorg dat die kind sy probleme beter sal verstaan en dieselfde tyd meer bekwaam voel.

Ons vertrou dat hierdie sessies nie alleen tot voordeel sal wees vir die kinders wat daaraan deelneem maar sal ons ook beter in staat stel om andere kinders tot hulp te wees.

Hierdie navorsingsprojek maak natuurlik staat op die deelname van die kinders en ons maak derhalwe staat op u samewerking as ouers. Ons sal baie bly wees as u hierdie groep-sessies sal bywoon. Elke sessie sal sowat 1 - 1½ uur duur en word by die Rooikruis Kinderhospitaal gehou op die vyf agtereenvolgende dae wat bo gemeld is. Enige redelike vervoerkoste sal, indien so verlang, vergoed word.

U kan met my in verbinding tree by telefoon... indien u besonderhede in verband met die sessies met my wil bespreek. Ek stel ook belang om te verneem van enige spesifieke probleme wat u kind mag hê. Ek sluit hierby in 'n ge-adresserde koevert vir ingeval u my nie per telefoon kan kontak nie.

Ek sien uit daarna om van u te hoor. Dit sal waardeer word as u vir my 'n antwoord sal stuur – al stel u nie daarin belang dat u kind in die groep-sessies deelneem nie. U kan dit doen net deur die vorm hieronder in te vul.

Die wve,

PAUL FROST

---

KIND SE NAAM: ....................................................

SKOOL: ..........................................................

ONS WIL GRAAG HÊ ONS KIND MOET DIE GROEP-SESSIES BYWOON: [JA] [NEE]

2. **List of Burned Subjects & Area of Body Burned**
<table>
<thead>
<tr>
<th>Subject</th>
<th>Gender*</th>
<th>Area Burned</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB</td>
<td>F</td>
<td>Neck</td>
</tr>
<tr>
<td>TS</td>
<td>F</td>
<td>Right Arm &amp; Trunk</td>
</tr>
<tr>
<td>FP</td>
<td>F</td>
<td>Right Hand</td>
</tr>
<tr>
<td>SSw</td>
<td>F</td>
<td>Right Hand (Two Fingers Missing)</td>
</tr>
<tr>
<td>EH</td>
<td>M</td>
<td>Chest, Arms &amp; Back</td>
</tr>
<tr>
<td>QG</td>
<td>M</td>
<td>Right Hand (Palmer)</td>
</tr>
<tr>
<td>NR</td>
<td>M</td>
<td>Knee</td>
</tr>
<tr>
<td>WI</td>
<td>M</td>
<td>Face, Arms &amp; Chest</td>
</tr>
<tr>
<td>SA</td>
<td>M</td>
<td>Face (Corner Mouth)</td>
</tr>
<tr>
<td>JD</td>
<td>F</td>
<td>Face, Head</td>
</tr>
<tr>
<td>LA</td>
<td>F</td>
<td>Head, Arms &amp; Hands</td>
</tr>
<tr>
<td>CM</td>
<td>F</td>
<td>Leg, Ankle</td>
</tr>
<tr>
<td>GE</td>
<td>F</td>
<td>Chest &amp; Neck</td>
</tr>
<tr>
<td>IA</td>
<td>M</td>
<td>Face, Limbs &amp; Trunk</td>
</tr>
<tr>
<td>CA</td>
<td>M</td>
<td>Left Hand</td>
</tr>
<tr>
<td>SSm</td>
<td>M</td>
<td>Left Hand</td>
</tr>
<tr>
<td>LP</td>
<td>M</td>
<td>Lower Face &amp; Neck</td>
</tr>
<tr>
<td>SSa</td>
<td>M</td>
<td>Arms</td>
</tr>
</tbody>
</table>

* "F" denotes female
"M" denotes male
3. Matching of Subjects
<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Burn Control Group</th>
<th>Non-Burn Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Gender</td>
<td>Age</td>
</tr>
<tr>
<td>AB</td>
<td>F</td>
<td>10</td>
</tr>
<tr>
<td>TS</td>
<td>F</td>
<td>7</td>
</tr>
<tr>
<td>FP</td>
<td>F</td>
<td>10</td>
</tr>
<tr>
<td>SSw</td>
<td>F</td>
<td>9</td>
</tr>
<tr>
<td>EH</td>
<td>M</td>
<td>8</td>
</tr>
<tr>
<td>QG</td>
<td>M</td>
<td>7</td>
</tr>
<tr>
<td>NR</td>
<td>M</td>
<td>10</td>
</tr>
<tr>
<td>WI</td>
<td>M</td>
<td>8</td>
</tr>
<tr>
<td>SA</td>
<td>M</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: "F" denotes female; "M" denotes male
4. **Letters to Burned Subjects' Parents and School Principals,**
   *re. Adaptation Questionnaire*
Liewe Ouers,

Om ons in staat te stel om die doeltreffendheid van groep-sessies vas te stel, is dit nodig om 'n norm te hê ivm u kind se gedrag. Die aangehegte vraelys is opgestel om 'n beeld te vorm van u kind se gedrag. Ek sal baie bly wees indien u dit so volledig as moontlik sal voltooi.

Aanwysings om die vraelys te voltooi word daarin uitgeesit. Sou u probleme ondervind om dele daarvan te voltooi, sal ek bly wees om u te help. Probeer asseblief om die vraelys so volledig as moontlik te voltooi.

Om 'n geheel beeld te kan vorm is dit nodig dat skool gedrag ook ingesluit word en om ons in staat te stel om dit te kan doen benodig ons u toestemming om dieselfde vraelys ook aan u kind se skool prinsipaal te mag stuur. In hierdie verband sal ek bly wees indien u onderstaande vormpie sal voltooi en dit tesame met u voltooide vraelys aan my terug te stuur.

Ek wil u net graag verseker dat alle informasie as streng vertroulik behandel sal word.

Baie dankie by voorbaat vir u samewerking.

Die uwe,

PAUL FROST

---

Ek, (naam) ..........................................................
het geen beswaar dat die skool prinsipaal van (naam van skool)
.......................................................... gevra word om 'n vraelys te voltooi in verband met (kind se naam) ..................................................
se gedrag by die skool. Ek begryp dat alle informasie as streng vertroulik behandel sal word.

Handtekening : ...........................................
Datum .................
Waarde heer,

Ek, in samewerking met die Departement van Kinderpediatrie, onderneem om die psigoso-sosiale probleme na te vors wat kinders met brandwonde ondervind.

het deelgeneem aan ons groep-sessies.

Om die doeltreffendheid van ons program vas te stel, het ons 'n vraelys opgestel wat 'n beeld van die kind se gedrag sal weergee.

Om 'n geheel beeld van algemene gedrag in te win, is dit nodig dat sy skool gedrag ingesluit word. Ek sal dit dus waardeer as u asb die aangehegte vorm so spoedig moontlik sal voltooi aangaande bogenoemde kind se gedrag in u skool. 'n Gefrankeerde koevert word hierby ingesluit vir die terugstuur van die vraelys.

Om stabiliteit van gedrag vas te stel oor 'n gegewe tydperk, sal 'n soortgelyke vraelys weer aan u gestuur word in tien weke se tyd. Indien u enige probleme ondervind met die voltooiing van hierdie vraelys, moet asseblief nie huiver om met my in verbinding te tree nie.

Laastens, kan ek net noem dat ek verlof van die ouers ontvang het om genoemde vraelys aan u te stuur (sien aangehegte vorm). Alle informasie word streng vertroulik gebruik.

U samewerking word hoog op prys gestel.

Die uwe,

PAUL FROST
5. Adaptation Questionnaire
ADAPTATION QUESTIONNAIRE

AANPASINGS VRAELYS

NAME OF CHILD
NAAM VAN KIND .................................................................

NAME OF PERSON COMPLETING QUESTIONNAIRE
NAAM VAN PERSOON WAT VRAELYS INVUL .................................

SCHOOL
SKOOL ........................................................................

DATE
DATUM .........................
1. PLACE A CROSS IN ONLY ONE OF THE BELOW BLOCKS

Offers assistance to others
Is willing to help if asked
Never helps others

2. PLACE A CROSS IN ALL OF THE BLOCKS OPPOSITE ITEMS THAT ARE APPLICABLE

Shows interest in the affairs of others
Takes care of others' belongings
Directs or manages the affairs of others when needed
Shows consideration for others' feelings
None of the above

3. PLACE A CROSS IN ONLY ONE OF THE BELOW BLOCKS

Interacts with others in group games or activity
Interacts with others for at least a short period of time, eg. showing or offering toys, clothing, etc.
Interacts with others imitatively with little interaction
Does not respond to others in a socially acceptable manner

4. PLACE A CROSS IN ONLY ONE OF THE BELOW BLOCKS

Begins group activities (is leader and organiser)
Participates in group activities spontaneously and eagerly (is active participant)
Participates in group activities if encouraged to do so (is passive participant)
Does not participate in group activities

5. PLACE A CROSS IN ALL OF THE BLOCKS OPPOSITE ITEMS THAT ARE APPLICABLE

Refuses to take turns
Does not share with others
Becomes cross if he/she does not get own way
Interrupts teacher who is helping another person
None of the above

6. PLACE A CROSS IN ALL OF THE BLOCKS OPPOSITE ITEMS THAT ARE APPLICABLE

Is too familiar with strangers
Is afraid of strangers
Does anything to make friends
Likes to hold hands with everyone
Is always at someone's side
None of the above

ALL THE / .......
ALL THE FOLLOWING SECTIONS SHOULD BE COMPLETED IN THE SAME MANNER. WHERE AN ITEM IS APPLICABLE A CROSS SHOULD BE PLACED IN A BLOCK ACCORDING TO THE FREQUENCY OF THE BEHAVIOUR. IF A BEHAVIOUR OCCURS ONLY NOW AND AGAIN THEN A CROSS SHOULD BE PLACED IN THE BLOCK UNDER THE HEADING "OCCASIONALLY". IF A BEHAVIOUR OCCURS QUITE OFTEN A CROSS SHOULD BE PLACED IN THE BLOCK UNDER THE HEADING "FREQUENTLY". SHOULD NONE OF THE BEHAVIOURS BE APPLICABLE THEN A CROSS SHOULD BE PLACED IN THE BLOCK OPPOSITE "None of the above". WHERE THE CHILD BEHAVES IN A MANNER VIRTUALLY THE SAME AS THE BEHAVIOURS SET OUT IN ANY PARTICULAR ITEM, THIS SHOULD BE DESCRIBED IN THE PLACE MARKED "other (specify ............)"

<table>
<thead>
<tr>
<th>Section</th>
<th>Occasionally</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Uses threatening gestures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indirectly causes injury to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spits on others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pushes, scratches or pinches others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulls others' hair, ears, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bites others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kicks, strikes or slaps others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throws objects at others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chokes others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses objects as weapons against others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hurts animals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify .........................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Rips, tears or chews clothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dirties own possessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tears up own magazines, books or other possessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify .........................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Rips, tears or chews others' clothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soils others' property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tears up others' magazines, books or personal possessions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify .........................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Tears up magazines, books or other public property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is too rough with furniture (kicks, turns over etc)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breaks windows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stuffs toilet with paper, towels or other solid objects that cause overflow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attempts to set fires</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify .........................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Cries and screams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamps feet while banging objects or slamming doors etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamps feet and screams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throws self on floor and screams and yells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify .........................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. Gossips about others
   Tells untrue or exaggerated stories about others
   Teases others
   Picks on others
   Makes fun of others
   None of the above
   Other (specify ..................................)

13. Tries to tell others what to do
   Demands that others do things for him
   Pushes others around
   Causes fights amongst others
   Manipulated others in order to get them into trouble
   None of the above
   Other (specify ..................................)

14. Is always in the way
   Interferes with others' activities eg. blocking the
   passage so that others cannot pass
   Upsets others' work
   Knocks articles about that others are playing with
   eg. puzzles, card games, etc.
   Snatches things out of others' hands
   None of the above
   Other (specify ..................................)

15. Does not return things that were borrowed
   Uses others' property without permission
   Loses others' belongings
   Damages others' belongings
   Does not recognise difference between others' and
   own property
   None of the above
   Other (specify ..................................

16. Keeps temperature in public places uncomfortable for
   others eg. opens or closes windows or doors
   Plays TV, radio or record player too loud
   Makes loud noises while others are reading
   Sprawls over furniture or space needed by others
   None of the above
   Other (specify ..................................

17. Uses hostile language eg. "stupid ox", "dirty pig" etc.
   Swears or uses obscene language
   Shouts threats of violence
   Threatens others with physical violence
   None of the above
   Other (specify ..................................

18. Gets upset if given a direct order
   Plays deaf and does not follow instructions
   Does not pay attention to instructions
   Refuses to work on assigned tasks
   Hesitates for long periods before doing assigned
   tasks
   Does the opposite of what is requested
   None of the above
   Other (specify ..................................

OCCASIONALLY | FREQUENTLY
---|---

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>19.</strong></td>
<td>Resents people in authority eg., teachers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is hostile towards people in authority:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mocks people in authority:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Says that he can fire people in authority:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Says relative will kill or harm persons in authority:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>20.</strong></td>
<td>Attempts to run away from home or school:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avoids group activity eg., picnics, school games, etc.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Runs away from home or school:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>21.</strong></td>
<td>Interrupts group discussions by talking about unrelated subjects:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disrupts games by refusing to follow the rules:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disrupts group activities by making loud noises or by acting up:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not stay in seat during eg., lesson periods, discussions, etc.:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>22.</strong></td>
<td>Sits or stands in one position for long periods of time:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does nothing but sit and watch others:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Falls asleep in chair:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lies on floor all day:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not seem to react to anything:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>23.</strong></td>
<td>Seems unaware of surroundings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is difficult to reach or contact:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is apathetic and irresponsible in feelings:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has a blank stare:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has a fixed expression:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>24.</strong></td>
<td>Is timid and shy in social situations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hides face in social situations:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not mix well with others:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prefers to be alone:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>25.</strong></td>
<td>Drums fingers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Taps feet continually:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has hands constantly in motion:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slaps, scratches, or rubs self continually:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shakes parts of body repeatedly:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moves or rolls head back and forth:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rocks body back and forth:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Faces the floor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None of the above:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
26. Talks too close to others' faces
   Blows on others' faces
   Burps at others
   Kisses or licks others
   Hugs or squeezes others
   Touches others inappropriately
   Hangs on to others and does not let go
   None of the above
   Other (specify ..................................)

27. Grinds teeth
   Bites fingernails
   Chews or suck fingers or other parts of body
   Chews or sucks clothing or other inedibles
   Puts everything in mouth
   None of the above
   Other (specify ..................................

28. Tears off buttons or zips
   Undresses at wrong times
   Tears off own clothing
   None of the above
   Other (specify ..................................

29. Is too particular about places he sits or sleeps
   Stands in a favourite spot eg. by a window or door
   Sits by anything that vibrates
   Is afraid to climb or go down stairs
   Does not want to be touched
   Screams if touched
   None of the above
   Other (specify ..................................

30. Bites or cuts self
   Slaps or strikes self
   Bangs head or other parts of body against objects
   Pulls own hair, ears, etc.
   Scratches self causing injury
   Soils and smears self
   Picks at any sores he might have
   Pokes objects in own ears, eyes, nose or mouth
   Purposely provokes abuse from others
   None of the above
   Other (specify ..................................

31. Talks excessively
   Will not sit still for any length of time
   Constantly runs or jumps around a room or hall
   Moves or fidgets constantly
   None of the above
   Other (specify ..................................

32. Does not recognise own limitations
   Has too high opinion of self.
   Talks about future plans that are unrealistic
   None of the above
   Other (specify ..................................)
<table>
<thead>
<tr>
<th></th>
<th>OCCASIONALLY</th>
<th>FREQUENTLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. Blames own mistakes on others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdraws or becomes sullen when thwarted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becomes upset when thwarted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Throws temper tantrums when does not get own way</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify ..................................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. Wants excessive praise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is jealous of attention given to others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demands excessive reassurance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts silly to gain attention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify ..................................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. Complains of unfairness, even when equal shares have been given</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complains, &quot;Nobody loves me&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says, &quot;Everybody picks on me&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says, &quot;People talk about me&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Says, &quot;People are against me&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts suspicious of people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify ..................................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. Complains about imaginary physical ailments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pretends to be ill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts sick after illness is over</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify ..................................)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. Changes mood without apparent reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complains of bad dreams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cries out when asleep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cries for no apparent reason</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems to have no emotional control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vomits when upset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appears insecure or frightened in daily activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talks about people or things that cause unrealistic fears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talks about suicide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has made an attempt at suicide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None of the above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify ..................................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANY OTHER REMARKS YOU WISH TO MAKE:
1. TREK 'n KRUISIE IN NET EEN VAN DIE BLOKKIES HIERONDER

Bied aan om ander te help
Is gewillig om ander te help as gevra word
Help nooit ander mense nie.

2. TREK 'n KRUISIE IN AL DIE BLOKKIES TEENOOR ITEMS WAT VAN TOEPASSING IS

Stel belang in wat ander doen
Pas ander mense se goed op
Reël of bestuur die sake van andere wanneer nodig
Is bedagsaam oor die gevoelens van ander mense
Geen van bogenoemde

3. TREK 'n KRUISIE IN NET EEN VAN DIE BLOKKIES HIERONDER

Meng met ander in groep speletjies of aktiviteite
Meng met ander vir ten minste 'n kort tydjie, bv. om klere of speelgoed te wys of aan te bied
Meng op 'n nabootsende manier met ander maar met min interaksie
Reageer nie op ander in 'n sosiaal aanvaarbare manier nie

4. TREK 'n KRUISIE IN NET EEN VAN DIE BLOKKIES HIERONDER

Begin groep aktiviteite (is leier en organiseerder)
Neem ongedwonge en met graagte deel in groep aktiviteite (neem aktief deel)
Neem deel in groep aktiviteite as aangemoedig word om dit te doen (maar neem nie aktief deel nie)
Neem nie deel in groep aktiviteite nie

5. TREK 'n KRUISIE IN AL DIE BLOKKIES TEENOOR ITEMS WAT VAN TOEPASSING IS

Weier om beurte te maak
Deel nie met ander nie
Word kwaad as hy nie sy sin kry nie
Steur die onderwyser wie besig is om 'n ander persoon te help
Geen van bogenoemde

6. TREK 'n KRUISIE IN AL DIE BLOKKIES TEENOOR ITEMS WAT VAN TOEPASSING IS

Is vrypostig met mense wat hy nie ken nie
Is bang vir mense wat hy nie ken nie
Doen enigiets om vriende te maak
Hou daarvan om met almal hande vas te hou
Is altyd by iemand
AL DIE VOLGENDE DELE MOET OP DIESELDE MANIER BEANTWOORD WORD. WAAR ’n ITEM VAN TOEPASSING IS MOET ’n KRUISIE GETREK WORD IN DIE BLOKJE OOREENSTEMMEND MET DIE FREKWENSIE VAN DIE GEDRAG. AS ’n GEDRAG MET NOU EN DAN PLAASVIND MOET ’n KRUISIE IN DIE BLOKJE ONDER DIE OPSKRIF "SOMS" GEPLAAS WORD. AS ’n GEDRAG HEELWAT PLAASVIND, MOET ’n KRUISIE IN DIE BLOKJE ONDER DIE OPSKRIF "DIKWELS" GEPLAAS WORD. WAAR ’n KIND HOM GEDRA OP ’n MANIER AMPER SOORTGELYK AAN DIE GEDRAG UITEENGESIT IN DIE ITEM, MOET Dit BESKRYF WORD IN DIE PLEK GEMERK "ANDER (BESKRYF .........)"

<table>
<thead>
<tr>
<th>7. Gebruik dreigende gebare</th>
<th>SOMS</th>
<th>DIKWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veroorsaak indirek dat ander seer kry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spoeg op ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stoot, krap of knyp ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trek ander se hare, ore, ens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Byt ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skop, slaan of klap ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gooi voorwerpe na ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wurg ander kinders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gebruik voorwerpe as wapens teen ander</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maak diere seer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geen van bogenoemde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ander (beskryf .................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Skeur, pluk of kou eie klere</th>
<th>SOMS</th>
<th>DIKWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maak eie besittings vuil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skeur eie tydskrifte, boeke of ander besittings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geen van bogenoemde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ander (beskryf .................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Skeur, pluk of kou ander se klere</th>
<th>SOMS</th>
<th>DIKWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maak ander se klere vuil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skeur ander se tydskrifte, boeke of persoonlike besittings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geen van bogenoemde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ander (beskryf .................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Skeur tydskrifte, boeke of ander publieke eiendom</th>
<th>SOMS</th>
<th>DIKWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is te rof met meubels (dit skop of omkeer, ens.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breek vensters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stop die toilet met papier, handdoek of ander soliede voorwerpe sodat dit oorstroom</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probeer om brande te stig</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geen van bogenoemde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ander (beskryf .................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Huil en skree</th>
<th>SOMS</th>
<th>DIKWELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stamp voete terwyl hy voorwerpe teen mekaar slaan of deure toeslaan, ens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stamp voete, skree en gil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gooi self op vloer neer en skree en gil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geen van bogenoemde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ander (beskryf .................)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. Skinder van ander mense
Vertel onwaar of oordrewe stories van ander mense
Terg ander
Pik op ander
Spot met ander
Geen van bogenoemde
Ander (beskryf ........................................)

13. Probeer om vir ander te sê wat hulle moet doen
Dring daarop aan dat ander vir hom dinge doen
Stamp ander rond
Veroorsaak bakleiery tussen ander persone
Manipuleer ander om hulle in die moeilikheid te laat kom
Geen van bogenoemde
Ander (beskryf ........................................)

14. Is altyd in die pad
Bemoei hom met ander se aktiwiteite bv. blok die gang sodat ander mense nie kan verbykom nie
Steur ander se werk
Stamp artikels waarmee ander speel bv. "puzzles", kaart speletjies, ens.
Gryp dinge uit ander se hande uit
Geen van bogenoemde
Ander (beskryf ........................................)

15. Gee nie dinge terug wat hy geleen het nie
Gebruik ander se eiendom sonder toestemming
Verloor ander se besittings
Beskadig ander se besittings
Ken nie die verskil tussen eie en ander se besittings nie
Geen van bogenoemde
Ander (beskryf ........................................)

16. Hou die temperatuur in publieke plekke onaangenaam vir ander bv. vensters of deure oop/toe te maak
Laat die TV, radio of platespeler te hard speel
Maak harde lawaai terwyl ander lees
Praat te hard
Strek homself uit oor die meubels of plekke wat ander nodig het
Geen van bogenoemde
Ander (beskryf ........................................)

Vloek of gebruik slegte taal
Skree en dreig met geweld
Dreig ander met fisiese geweld
Geen van bogenoemde
Ander (beskryf ........................................)

18. Word ontstel as 'n direkte bevel gegee word
Maak asof hy nie gehoor het nie en volg nie instruksies nie
Gee nie aandag aan instruksies nie
Weier om te werk aan 'n taak wat toegesê is
Aarsel vir lang tydperke voordat hy die taak doen wat toegesê is
Doen die teenoorgestelde van wat gevra was
Geen van bogenoemde
Ander (beskryf ........................................)
19. Hou nie van persone wat in 'n gesaghebbende posisie is nie, bv. onderwyser
   Is vyandig teenoor gesaghebbendes
   Bespot gesaghebbendes (mense in beheer)
   Sê dat hy mense in beheer kan afdank
   Sê dat 'n familie lid persone in beheer sal dood maak
     of seer maak
   Geen van bogenoemde
   Ander (beskryf ..................................)

20. Probeer om van die huis of skool weg te loop
    Vermy groep aktiwiteite, bv. uitstappies, skool
        speletjies, ens.
    Loop weg van die huis of skool
    Geen van bogenoemde
    Ander (beskryf ..................................)

21. Val groep besprekings in die rede deur te praat oor
    onverwante onderwerpe
    Hinder speletjies deur te weier om reëls te volg
    Hinder groep aktiwiteite deur hard te lawaai
    en hom snaaks te hou
    Bly nie in stoel gedurende bv. klasse en gesprekke
    ens. nie
    Geen van bogenoemde
    Ander (beskryf .................................)

22. Sit of staan in een posisie vir lang tydperke
    Doen niks behalwe om te sit en na ander te kyk nie
    Val aan die slaap in 'n stoel
    Lê hele dag op die vloer
    Lyk asof hy nie op enigiets reageer nie
    Geen van bogenoemde
    Ander (beskryf .................................)

23. Blyk onbewus te wees van die omgewing
    Is moeilik om met hom in aanraking te kom of te bereik
    Is ongevoelig en nie simpatiek nie
    Is uitdrukkingloos
    Het 'n star uitdrukking
    Geen van bogenoemde
    Ander (beskryf .................................)

24. Is skamerig en bedees in sosiale situasies
    Steek sy gesig weg in sosiale situasies
    Meng nie goed met ander mense nie
    Verkies om alleen te wees
    Geen van bogenoemde
    Ander (beskryf .................................)

25. Trommel vingers
    Tik voete aanhoudend
    Hande beweeg altyd
    Slaan, krap of vryf homself aanhoudend
    Skud dele van die lyf
    Beweeg of rol kop heen en weer
    Wieg lyf heen en weer
    Stap heen en weer
    Geen van bogenoemde
    Ander (beskryf .................................)
26. Praat te naby ander se gesigte
   Blaas in ander se gesigte
   Soen of lek ander
   Omhels en druk ander
   Hou aan ander vas en wil nie los nie
   Raak aan ander op ’n ontoepaslike manier
   Geen van bogenoemde
   Ander (beskryf ..........................................................)

27. Kners tande
   Byt sy vingernaels
   Suig of kou vingers of ander gedeeltes van die lyf
   Suig of kou klere of ander oneetbare goed
   Plaas alles in sy mond
   Geen van bogenoemde
   Ander (beskryf ..........................................................)

29. Is te kieskeurig oor plekke om te sit of slaap
   Staan in ’n geliefkoosde plek, bv. venster of deur
   Sit by enigiets wat vibreer
   Is bang om trappe op of af te klim
   Hou nie daarvan dat daar aan horn geraak word nie
   Skree as iemand aan hom raak
   Geen van bogenoemde
   Ander (beskryf ..........................................................)

30. Byt of sny homself
    Slaan of klap homself
    Slaan sy kop of ander dele van die liggaam teen voorwerpe
    Trek sy hare, ore, ens.
    Krap homself en veroorsaak besering
    Bevuil en besmeer homself
    Krap enige wonde wat hy mag hê
    Steek voorwerpe in sy ore, oë, neus of mond
    Veroorsaak opsetlik dat ander hom uitskel
    Geen van bogenoemde
    Ander (beskryf ..........................................................)

31. Praat te veel
    Wil nie vir enige langerige tydperk stil sit nie
    Hardloop en spring aanhoudend in die kamer of gang
    Is aanhoudend onrustig en beweeg rond
    Geen van bogenoemde
    Ander (beskryf ..........................................................)

32. Herken nie sy eie beperkinge nie
    Het ’n te hoë opinie van homself
    Praat oor toekomsplande wat onrealisties is
    Geen van bogenoemde
    Ander (beskryf ..........................................................)
33. Blameer ander vir sy eie foute  
Word teruggetrokke en knorrig as hy gedwarsboom word  
Word omgekrap as gedwarsboom word  
Raak onststeld as hy nie sy sin kan kry nie  
Geen van bogenoemde  
Ander (beskryf .................................................)

34. Wil oormatig geprys word  
Word jaloers oor die aandag wat ander kry  
Soek oormatige versekering  
Soek aandag deur laf te wees  
Geen van bogenoemde  
Ander (beskryf .................................................)

35. Kla van onbillikheid al is voorregte gelyk uitgedeel  
Kla:"Niemand het my lief nie"  
Sê: "Almal pik op my"  
Sê: "Mense praat oor my"  
Sê: "Mense is teen my"  
Is agterdogtig teenoor ander mense  
Geen van bogenoemde  
Ander (beskryf .................................................)

36. Kla oor denkbeeldige fisiese kwale  
Maak asof hy siek is  
Maak asof hy siek is nadat hy gesond geword het  
Geen van bogenoemde  
Ander (beskryf .................................................)

37. Verander van bui sonder enige blykbare rede  
Kla oor slegte drome  
Roep in sy slaap  
Huil sonder enige blykbare rede  
Het blykbaar geen emosionele beheer nie  
Braak wanneer hy ongelukkig voel  
Lyk onseker of bang in daaglikse aktiwiteite  
Praat oor mense of dinge wat onrealistiese angs veroorsaak  
Praat oor selfmoord  
Het al selfmoord probeer pleeg  
Geen van bogenoemde  
Ander (beskryf .................................................)

ENIGE VERDERE OPMERKINGS WAT U GRAAG WIL MAAK:
6. Selected Stories Translated and Adapted from the D.U.S.O. Programme
Introduction

The translated stories have been set out in the form they appear in the D.U.S.O. programme.

Stories were chosen as being appropriate as it was believed that their scenarios, themes and questions were relevant to the real-life problems of a burned child. They were seen to be the most likely to elicit the experiences and feelings of the child.

Each story's aims are to be found at the beginning of each story under the heading "Purpose".

At the end of each story*, under the heading "Questions/Discussion" a number of questions are listed. These questions are intended to promote group discussion and elicit information. It is important to note, however, that these questions are merely guidelines and that the ultimate success of any such exercise rests in the group leader's flexibility.

*Except the Introductory Story No. 1
**Story 1 : Original Title "The Underwater Problem Solvers"**

**Purpose**
(1) To teach the five rules of group discussion; and
(2) To stress the concept of thinking together.

**(Introductory Story)**

Hello ... seuns en meisies! My naam is Snoekie die vis. Ek was net besig om verby te swem toe ek besluit het om by julle to kom kuier. Soms word ek moeg om net met visse en diere te gesels en dan spring ek uit die water uit om met seuns en meisies te gesels. Ek hou altyd daarvan om met kinders to praat oor die dinge wat hulle doen. Partykeer, kan ek hulle help dink aan 'n manier om hulle probleme op te los.

Eendag sal ek vir julle vertel van die ander kinders wat ek op ander plekke in die wêreld ontmoet het. Maar vandag, wil ek vir julle vertel van my diere vriende.

Ek en my vriende kom bymekaar om oor allerhande dinge te praat. Ons het uitgevind dat wanneer ons almal saam dink oor 'n probleem, ons dit baie beter en vinniger kan oplos.

Ons noem onself 'die probleem oplossers". As enigeen van ons 'n probleem het, sit ons koppe bymekaar en gesels oor die probleem totdat ons die beste antwoord gekry het.

Hier is van my vriende. Dit is Henrietta, die hen. Ons het eers vir haar "Henrietta Keekelbek" genoem omdat sy altyd gepraat het as iemand anders besig was om te praat. Henrietta het sommer gou gesien dat as almal gelykytydig praat kan niemand iets leer nie. Ons het uitgevind dat die beste manier om te praat was om elke een sy kans te gee om te praat. Dit het die beste gewerk wanneer, as iemand iets gehad het om te sê, hy sy hand in die lug opsteek. Ons het uitgevind dat, as almal sy hand in die lug opsteek, almal kans kry om te praat en dat ons nie gelykytydig en deurmekaar gepraat het nie.

Henrietta se reël is dan . . . As jy iets wil sê, moet jy jou hand in die lug opsteek.

Hiedie is nog een van my vriende. He is Ollie, die olifant. Julle kan seker sien dat hy baie groot ore het. Hy het nie verniet sulke groot ore nie want hy gebruik hulle om baie mooi te luister na wat die ander diere sê.

Ollie het uitgevind dat as hy nie vir die ander diere geluister het nie, hulle ook nie vir hom geluister het nie. Hy het gesien dat dit nodig was om baie mooi na die ander diere te
luister voordat hulle na hom geluister het. Ollie se reël is . . . Luister baie mooi.

Maar almal kan nie die hele tyd luister nie. Dit is hoekom ons die derde reël vir saampraat het. Die reël is . . . Moenie stil bly nie. Ons het uitgevind dat Minnie, die muis, goeie idees gehad het maar altyd stil gebly het. Ons het haar aangespoor om haar goeie idees met ons te deel. Dus, wanneer ons groepie saampraat, en jy het 'n goeie idee, moet nie so stil soos 'n muis sit nie; praat saam . . . Moenie stil bly nie.

Hier is nog een van my vriende. Sy naam is Buksie, die bok. Julle kan sien dat hy horings met skerp punte het. Buksie se reël is . . . Hou by die punt. Dit beteken dat, as daar oor iets gepraat word, moet jy nie sommer begin om oor 'n ander ding te praat nie voordat julle eers klaar gepraat het oor die eerste idee nie.

Ons het besluit dat Buksie, die bokkie, altyd vir ons moet help onthou dat ons by die punt moet bly totdat ons klaar daarmee is.


Die belangrike ding wat ons uitgevind het oor ons groepie is dat ons saam moet dink. Ons moet almal saamwerk om te help om mekaar se probleme op te los.

As almal mekaar vertrou sal ons groepie die beste saamwerk. Ons groepie kom nie bymekaar sodat ons kan stry of sodat ons mekaar kan terg nie. Ons kom bymekaar sodat ons saam ons probleme kan oplos.

As ons groepie bymekaar kom, moet ons die vyf reëls vir saam gesels onthou:

(1) Steek jou hand in die lug . . . almal kan nie gelykydig praat nie.
(2) Luister baie mooi . . . dan sal die ander mooi na jou luister.
(3) Moenie stil bly nie . . . jou idees is ook belangrik.
(4) Hou by die punt . . . moenie oor ander dinge praat nie.
(5) Dink saam . . . as ons saam dink ons mekaar help.

Wel, seuns en meisies, ek moet seker maar terug gaan see toe. Ek hoop dat julle van my vriende gehou het. Ek sal gou weer vir julle kom kuier.
Story 2 : Original Title "The Red and White Bluebird"
( Unit I, Cycle A)

Purpose
(1) To develop a realistic understanding of the self;
(2) To learn to accept capabilities; and
(3) To show the uniqueness of the individual.

Die Rooi en Wit Geel Kanarie

Hullo, seuns en meisies. Dis weer ek, Snoekie, die vis, en ek het nog 'n storie vir julle. Eendag toe ek naby die strand geswem het, het ek iets gesien wat my verbaas het. Dit was iets wat ek nooit voorheen gesien het nie. Daar, bo-op 'n stuk hout, het 'n snaakse voëltjie gesit.

Die voëltjie het lang groen vlerke en groot geel voete gehad. Hy het vere met rooi en wit blokkies gehad. Dit was werlik 'n eienaardige voël. Ek het nog nooit so 'n voël gesien nie; nie eers in prentjies nie.

Daar was een ding wat ek sommer dadelik kon sien. Die voëltjie het baie ongelukkig gelyk. Omdat ek daarvan hou dat almal 'n groot bree glimlag moet hé, vra ek vir horn, "Voel jy ongelukkig?"

"Ongelukkig!", sê die voëltjie, "ek is nie ongelukkig nie. Ek is bly. Hoe kom moet so mooi geel kanarie soos ek ongelukkig voel?"

Iets het vir my snaaks geklink. Enigeneen kon mos sien dat die voëltjie nie geel was nie. "Maar dis interessant, ek het gedink dat jy rooi en wit was", het ek gesê.

"Nee, ek is 'n geel kanarie. Kyk ek sal vir jou wys."

Die voëltjie het op 'n fiets gaan sit wat op die strand was. "Kan jy nou sien?", het hy gevra. "Ek is mos dieselfde kleur as hierdie geel fiets."

Hy het nog steeds vir my rooi en wit gelyk en ek sê dit toe vir hom.

Toe vlieg die voël en gaan sit op 'n geel klokkie. "Kyk", sê hy, "ek is presies dieselfde kleur as hierdie geel klokkie."

"O", antwoord ek. "Vir my lyk jy nog steeds rooi en wit."

Maar die voëltjie wou nie luister nie.
Hy vlieg terug na die strand en sê, "Dink aan die geel kleur van die sand op die strand. Dis mos presies die kleur wat ek is."

"Wel", sê ek. "Jy lyk nog steeds rooi en wit vir my."

Maar die voëltjie wou nie luister nie. Hy het net sy kop geskud en gesê, "Ek is geel . . . ek is geel . . . ek is geel!"

"Maar hoekom wil jy geel wees?", vra ek vir hom.

"Omdat almal van geel voëls hou", het hy geantwoord.

"Voel jy dan dat mense nie van rooi en wit voëls hou nie?"

Die klein voëltjie skud net sy kop en begin om te huil.

Ek sê toe vir hom, "Om geel te wees is reg vir n geel kanarie, maar jy lyk die beste in rooi en wit! En, jy moet onthou, jy is miskien die enigste rooi en wit voëltjie in die hele wêreld!"

Toe die voëltjie dit gehoor het, het hy sommer baie beter gevoel. Toe doen ek iets was die voëltjie breed laat glimlag het . . . Ek gee die voëltjie n 'badge' met die letters E - K daarop, wat "ek"spel. "Onthou", sê ek vir die voëltjie, "Jy is die enigste een soos jouself in die hele wêreld!"

**Questions/Discussion**

1. (a) Hoe het die voëltjie gevoel toe hy vir Snoekie ontmoet het?
   (b) Hoe kan jy sien as iemand ongelukkig is?
   (b) Kan julle vir my wys hoe dit lyk om ongelukkig te wees?
   (d) Hoe het die voëltjie gevoel by die einde van die storie?
      - Dink julle dat hy nog dieselfde gelyk het?
      - Hoe lyk jy as jy bly of gelukkig is?
      - Ek sien julle glimlag. Wat beteken dit as julle glimlag?
      - Kan julle dink aan 'n tyd wanneer julle ongelukkig was?

2. Hoe het Snoekie die voëltjie gelukkig laat voel?
   (Antwoord : O.K. om anders te wees)

3. Ken julle iemand wat net soos julle is?
Story 3: Original Title "Dizzy Terry" (Unit I, Cycle C)

Purpose

(1) To show the need to focus on purpose - the gain being sought by an action;

(2) To show that there are alternate ways to accomplish goals; and

(3) To stimulate thinking and discussion of self-acceptance.

'Dronk in die Kop' Danie

Hullo, seuns en meisies! Dis weer ek, Snoekie die vis. Ek wil julle vertel van 'n klein seuntjie wie ek ken. Die seuntjie se naam is Danie.

Toe Danie net groot genoeg begin word het om met ander kinders te speel het hy 'n nare ongeluk gehad. Danie het bo uit 'n boom geval, sy arm gebreek en sy kop seer gernaak. Die dokters het sornrner rnaklik sy arm reg gernaak, maar om sy kop reg te raak was nie so maklik nie.

Wanneer Danie probeer loop het, het hy dronek in die kop en siekerig gevoel. Dit het vir hom gelyk of dinge om hom rond draai. En, as iemand nie by hom was om hom te vang nie, het hy geval.

Danie se ma en pa het hulle baie bekommer oor hulle klein seuntjie. Sy ma moes sit en hom vashou om te keer dat hy val. As hulle ooit 'rens' gevaar het, het Danie se pa horn in sy arms gedra. Hulle was altyd versigtig omdat hulle nooit geweet het wanneer Danie weer dronek in die kop sou word nie.

Toe Danie ouer was, en sy gebreekte arm gesond geword het, was dit so goed soos nuut. Danie het nie meer, soos voorheen, so baie dronek in die kop geword nie. Dit was nie lank nie of hy was oud genoeg om skool toe te gaan. Sy ma en pa het vir die onderwyser gesê dat Danie partykeer miskien dronek in die kop sal word. Die onderwyser het gesê dat hy mooi na Danie sal kyk.

Soms, het Danie by die skool dronek in die kop gevoel en vir die onderwyser gevra of hy 'n bietjie kon sit. Die onderwyser het die baie mooi opgelet wat Danie doen. Hy het gesien dat Danie gewoonlik dronek in die kop geword het wanneer dinge nie so goed gegaan het nie. Dit het vir hom gelyk asof Danie dronek in die kop geword het wanneer hy wou ophou om iets te doen.

Eendag, toe Danie 'n 'puzzle' gebou het, het die ander kinders wat gekyk het gesien dat Danie met die 'puzzle' gesukkel het. Danie het vir 'n rukkie probeer om dit reg
te kry. Toe maak hy sy oë toe en sit sy hand teen sy kop. "Ek dink ek voel dronk in die kop", het hy gesê. Die onderwyser laat vir Danie gaan sit en hy hoef nie die 'puzzle' klaar te bou nie.

'n Ander keer, het die kinders op die speelgrond se nuwe 'slide' gery. Danie het gesê dat hy nie tot heel bo op die 'slide' kon klim nie omdat hy dronk in die kop gevoel het. Die ander kinders het vir Danie gehelp om op 'n bank te gaan sit. Een kind het vir Danie water gaan haal terwyl 'n ander kind vir hom 'n lekker gegee het. Al die kinders wou vir hom help. Danie het opgelet hoe hulpvaardig mense was as hy gesê dat hy dronk in die kop was. Binnekort, net wanneer hy iets nie wou doen nie of hy aandag wou hê, het hy gesê dat hy dronk in die kop was. Danie het geweet wat hy doen, maar hy kon dit nie keer nie. Hy was net nie seker of die ander kinders van hom sou hê nie, of hulle vir hom dinge sal doen as hy nie gemaak het nie of hy dronk in die kop was nie. Hierdie dinge het hom begin pla omdat hy geweet het dat hy nie met die ander kinders eerlik was nie en dat hy nie eers eerlik met homself was nie.

Eendag, terwyl Danie en ek gesels het, het hy vir my vertel dat hy partykeer dronk in die kop geword het en dat dit dan nodig was dat mense hom moes help. Ek vra toe vir Danie hoekom hy partykeer dronk in die kop geword het en ander kere nie. "Miskien gee jy nie om, om partykeer dronk in die kop te wees nie", het ek gesê, "want dan wil almal jou help."

"Niemand hou daarvan om dronk in die kop en siek te wees nie", het Danie gesê.

"Wat gebeur as jy dronk in die kop voel?", vra ek vir Danie.

"Almal is goed vir my en help my", antwoord Danie.

"Wêl", sê ek, "as almal vir jou goed is wanneer jy dronk in die kop voel kan dit die rede wees hoekom jy dronk in die kop voel ... sodat mense vir jou goed sal wees."

Danie en ek het daardie dag lekker saam gesels. Ek dink dat hy begin weet het waarom hy soms dronk in die kop voel. Ek wonder wat dink julle seuns en meisies?

Questions/Discussion
(1) (a) Wat het Danie gemaak asof dit gebeur?
   (b) Het enigeen van julle al gemaak of iets gebeur het?
(2) (a) Wie was bekommerd?
   (b) Het een van julle al bekommerd geraak?
(3) (a) Waaroor was Danie gepla?
(b) Het iets julle al gepla?

(4)(a) Op watter manier was Danie nie eerlik met die ander kinders nie?

(b) Wat vertel hierdie storie vir ons? (Get as many answers as possible and show that faining dizziness is wrong.)

(c) Is daar ander dinge wat mense voorgee wat nie waar is nie?
Purpose

(1) The establishment of a realistic self-concept through recognizing and accepting imperfections that cannot be changed;

(2) The discovery of, and the building up of, strengths; and

(3) Showing that one can be adequate without being first.

'Dikbek' Jonathan

Wanneer iemand dikbek is, dink ons altyd dat daar 'n rede moes wees. Ons hou nie daarvan om by mense te wees wat altyd dikbek is nie. Vandag se storie gaan oor 'n seun wat amper nooit geglimlag het nie. Hy was so suur, dat mense hom 'Dikbek' Jonathan genoem het.

Almal in die stad ken vir Dikbek Jonathan, maar min mense hou daarvan om by hom te wees. Hy kan hom altyd, kop onderstebo, sien rondloop. Hy het altyd sy hande in sy broeaksak en as hy loop, sleep hy sy voete.

As mense probeer om vriende te maak met Dikbek Jonathan, stap hy net weg. As jy hom stop en vra hoekom hy so onvriendelik is, sé hy net in 'n treurige stemmetjie ..

"Ek is nie onvriendelik nie. Mense hou net nie van my nie. Waarom moet hulle van iemand hou was sulke ou skoene soos myne dra en 'n groot neus en deurmekaar, rooi hare het? En wat nog van my pers hemp en hierdie sneaks langbroek? Mense hou nie van my nie omdat ek so lyk."

En so, het Dikbek Jonathan met hangende skouers, rondgeloop en hom altyd oor homself bekommer. Sy gesig het gelyk of hy 'n suurlemoen ge-eet het. Maar ek wil vir julle vertel wat gebeur het om Dikbek Jonathan te laat verander!

Eendag, to by hy die pad afstap, hoor hy iemand huil. Hy sien toe dat dit 'n klein meisie was. Die klein meisie se naam was Geraldine. Dit was maklik om te sien waarom Geraldine gehuil het ... sy het nie geweet waar haar ma en pa was nie. Geraldine het verlore geraak. Al wat sy kon doen was om langs die pad te staan en huil.

Geraldine het 'n groot lawaai gemaak met haar huilery. Dikbek Jonathan het geweet dat hy iets moes doen om die Klein meisie gelukkig te laat voel. Eers, het Dikbek Jonathan 'n sneaks dansie vir haar gedaan. Toe skop hy sy hakskene teen mekaar. Geraldine het gedink dat dit baie sneaks was en saam gelag. Hy het aangehou om te spring en sy hakskene teen mekaar te skop en Geraldine het
aanhou lag. Maar, dit was nie lank nie of Dikbek Jonathan het moeg geword en opgehou om te dans. Julle kan seker raai wat Geraldine gedoen het... sy het weer begin huil. Toe weet Dikbek Jonathan dat hy nog iets sal moet doen om haar te help.

Toe staan Dikbek Jonathan op sy hande en skop sy voete in die lug. Geraldine het gedink dat dit snaaks was en opgehou om te huil. Toe hy klaar was moes Dikbek Jonathan aan nog ander 'tricks' dink om Geraldine gelukkig te hou. Hy het die hele middag die klein meisie aan die lag gehou. En, die snaaksste ding was dat Dikbek Jonathan net soveel pret gehad het as Geraldine.

Na 'n ruk het Geraldine se pa en ma daar aangekom. Hulle het orals gesoek na Geraldine. Hulle was baie bly om haar weer te kry. Hulle het vir Dikbek Jonathan baie dankie gese omdat hy Geraldine so mooi opgepas het. Geraldine se pa vra vir Dikbek Jonathan was sy naam was.

„Almal noem my Dikbek Jonathan", het hy gesê.

„Wel, ek sien nie hoekom hulle vir jou Dikbek moet noem nie", sê Geraldine se pa. „Jy het dan so 'n mooi groot glimlag op jou gesig."

Weet julle wat toe gebeur het?


Vandag, noem almal hom 'Smiley' Jonathan. En, net een ding het die verskil gemaak!

Questions/Discussion

(1) Was Jonathan vriendelik in die begin van die storie?
   (a) Hoe het hy gelyk as hy onvriendelik is?
   (b) Wys hoe Jonathan se suur gesig gelyk het. Wys hoe Jonathan geloop het.

(2) Jonathan het probeer om Geraldine gelukkig te laat voel:
   (a) Hoe het hy geweet dat sy ongelukkig was?
   (b) Hoe het hy geweet dat sy gelukkig was?

(3) Het julle al probeer om iemand gelukkig te maak? Hoe het jy gevoel?
Story 5 : Original Title "The Box" (Unit I, Cycle E)

Purpose
(1) The illustration of two ways in which rejection is handled; and
(2) To show that rejection need not be personal but also can be situational.

Die Kis

Hulle sê toe nee. Gesant het gesê dat 'cowboys' 'n gevaarlike speletjie is en dat dit nie 'n goeie idee is om meisies te laat saamspeel nie.

Jolene besluit toe om weg te stap en begin huil. Terwyl sy weg stap, dink sy oor haar probleme.

Toe Jolene amper van die veld af is sien sy 'n interessante ou hout kis lê. Sy stap nader en kyk daarna. Dit was 'n groot kis waarin 'n TV verpak was. Iemand het die kis in die bosse weggegooi. Die kis was leeg, en dit was droog en skoon. Maar dit het nie lank leeg gebly nie want Jolene het in geklim en gaan sit. Sy het vir 'n lank tydjie daar bly sit en gedink aan Gesant en sy gemene vriende terwyl sy gehuil het. Sy het gewens dat sy hulle kon seermaak of met hulle speletjie kon lol. Sy het gehuil en gewonder hoekom hulle haar gehaat het.

Uiteindelik, het Jolene klaar gehuil en uit die kis geklim, dit geskop, en huis toe gestap vir aandete.


Hulle sê toe vir haar dat sy nie mag saamspeel nie. Rafia het gesê dat hulle nie meisies wat not nie skool toe gegaan het in hulle klaskamer wou hê nie. Die ander meisies het met Rafia saangestem en gesê dat hulle baie besig was met moeilike skoolwerk. Hulle het gesê dat hulle nie tyd gehad het om met babas te speel nie!
Zelda het besluit om weg te stap. Sy het geweet dat sy 'n ander plek sal moet kry om te speel. Terwyl sy deur die bosse stap, het sy gedink aan Rafia en die skoolmeisies. Hulle moes haar laat saamspeel het, het sy gedink. Dit was nie reg om haar nie toe te laat om te speel, net omdat sy klein was nie. Maar sy het geweet dat dit sou nie help om te huil nie.

Toe sien Zelda iets baie interessant. Dit was 'n ou kis. Sy het nader gestap om daarna te kyk. Die kis was leeg, droog en skoon. Zelda begin toe dink aan dinge wat sy met die kis kon doen.

Sy het die kis omgedop sodat dit op sy kant gestaan het en die deksel bo-op gesit. Die kis het net soos 'n klein huisie met 'n stoepie gelyk. Zelda het die grond om die huisie gevee en blomme in die huis gesit. Sy het 'n paar groot klippe gekry vir tafel en stoele en het kleiner klippe om die stoep gesit. Zelda het die hele middag in haar huisie gespeel. Sy wou nog baie dinge doen toe haar ma haar reeds vir aandete geroep het. Zelda het huis toe gehardloop vir haar aandete.

Questions/Discussion

(1)(a) Hoekom wou die seuns nie hé dat Jolene moet saamspeel nie?
   (b) Wanneer het Jolene ongelukkig gevoel?
   (c) Het die seuns regtig vir Jolene gehaat?

(2) Watter een van die meisies het gemaak soos 'n groot mens sou maak?

(3) Watter een van die twee meisies het die meeste pret gehad?

(4)(a) Hoekom wou die meisies nie vir Zelda saam skool laat speel nie?
   (b) Wat se moeilike skoolwerk dink julle het die meisies gedoen?

(5)(a) Wat het Jolene besluit om te doen?
   (b) Wat het Zelda besluit om te doen?
Story 6: Original Title "The New House" (Unit VII, Cycle A)

Purpose
This is an open-ended story aimed at eliciting discussion on uncertainties, fears of changes, etc.

Wilma Gaan Skool Toe

Wilma woul nie terug gaan skool toe nie. Haar vriend, Gadieja, het na 'n ander huis toe getrek en moes na 'n ander skool toe gaan. Wilma wou nie teruggaan skool toe nie omdat sy nie meer daar met haar beste vriend, Gadieja, sou kon speel nie. Sy het gevoel dat die skool glad nie meer so lekker sou wees nie omdat Gadieja nie meer daar was nie.

Wilma het vir haar pa vertel dat sy nie terug skool toe wou gaan nie. Maar, haar pa en ma het net gelag. "Moenie vir jou bekommer nie" het haar pa gesê, "jy sal sommer vinnig ander vriende maak as jy by die skool kom."

Maar Wilma wou nie ander vriende hê nie. Sy wou vir Gadieja hê.

Die dag toe die skool weer begin het, het Wilma se ma vir haar kos ingepak en haar boeke mooi reggekry, maar sy kon nêrens vir Wilma kry nie. "Wilma is seker in haar kamer", het Wilma se pa gesê, "Ek sal haar gaan haal."

Toe hy by die kamer kom sien hy niks. Maar, net toe hy wil uitloop, hoor hy 'n geluid in die kas. Hy maak die kas se deur oop en sien vir Wilma daarin sit en huil.

"Wat is fout?" vra hy vir Wilma. "Ek wil nie teruggaan skool toe nie", sê Wilma. "Ek weet dat ek nie daarvan gaan hou nie."

Wilma se pa sit sy arms om haar en vra, "Hoekom dink jy dat jy nie van die skool gaan hou nie?"

"Omdat dit nie soos voorheen gaan wees nie en omdat Gadieja nie daar gaan wees om saam met my te speel nie."

"Ek kan verstaan dat jy sleg voel omdat Gadieja nie meer by die skool is nie", sê Wilma se pa. "Ons mis almal vir ons vriende as hulle weegaan."

"Maar", sê Wilma se pa, met ŉ glimlag, "dink jy nie dat jy skool toe moet gaan om te kyk of jy nie ander vriende kan maak nie?"

Questions/Discussion
(1) Wat dink julle het Wilma gedoen?
(2) Hoekom was Wilma bekommerd gewees?
(3) Is dit moeilik om nuwe vriende te maak?
(4) Dink julle die feit dat Gadieja nie meer by die skool was nie die enigste rede was hoekom Wilma nie wou teruggaan skool toe nie?
(5) Hoe sal julle voel as julle Wilma was?
(6) Hoe sal julle voel as julle terug skool toe moet gaan sonder om te weet wat die ander kinders gaan doen of so iets?
(7) Het so iets al met julle gebeur?
Story 7: Original Title "The Outsider" (Unit II, Cycle D)

Purpose
(1) An examination of fluctuating friendships; and
(2) The consideration of the behaviour of the 'in group' in the story.

Die Buitestaander

Hierdie storie gaan oor 'n meisie wie se naam Anthea was. Anthea het baie pret met haar skoolvriend, Jeanette, gehad. Jeanette het in die huis langs Anthea gebly. Die twee meisies het amper elke dag saamgespeel.

Die meisies het die meeste pret gehad wanneer hulle onder die trappe van Jeanette se huis gespeel het. At hulle in die groot plek onder die trappe gespeel het, kon hulle hul verbeeld dat dit enige plek was. Een dag kon dit 'n winkel wees en 'n ander dag kon dit 'n klaskamer wees. Maar, die meeste van alles het die meisies daarvan gehou om hospitaal te speel.

Meeste van die tyd het Patricia met hulle gespeel. Anthea en Jeanette was mekaar se beste vriende en soms was hulle nie baie vriendelik met Patricia nie.

In elke speletjie het Anthea en Jeanette vir Patricia 'n buitestaander laat voel. Dit beteken nie dat Patricia buite moes staan nie - dit beteken dat hulle vir Patricia by die speletjie uit laat voel het. As Patricia nie presies doen wat hulle vir haar sê nie, dan sê hulle vir haar dat sy huis toe moes gaan. En, wanneer hulle haar toelaat om te speel, gee hulle haar nooit kans om te sê wat sy wil speel nie.

As die meisies onder die trappe skool gespeel het, het die hulle altyd seker gemaak dat hulle gesê het wat gedoen moet word. Patricia moes altyd maar net stilbly en luister. Dit was nie reg nie, maar Anthea en Jeanette het daarvan gehou dat dit so moes wees.

As Patricia gestry het en sê dat sy nie altyd 'n buitestaander wou wees nie, het Anthea maar net vir haar gesê, "Jeanette en ek is beste vriende, en as jy nie daarvan hou nie, kan jy maar huis toe gaan."

Een dag, het alles verander. Anthea het, soos gewoonlik, teruggekom van die skool af. En, soos gewoonlik, het sy kombuis toe gegaan vir 'n toebroodjie. Toe tel sy haar pop op en stap Jeanette se huis toe.

"Wat wil jy vandag speel, Jeanette?" het Anthea gevra.

"Patricia en ek gaan vandag alleen speel", sê Jeanette. "Jy is nie meer my beste vriend nie – Patricia is."

Anthea het nie geweet wat om te sê nie. Sy het net daar gestaan en haar pop styf vasgehou.

Toe sê sy, "Ek gee nie om nie. Ek wou tog nie meer jou vriend wees nie!"

Anthea het omgedraai en begin huis toe stap. Terwyl sy wegstap, kon sy hoor hoe die ander twee meisies lag.

**Questions/Discussion**

1. Hoe het Anthea gevoel toe die meisies nie vir haar laat saam speel nie? (buitestaander)
2. Wie nog in die storie het ook soos ‘n buitestaander gevoel?
3. Toe Anthea sê, "Ek gee nie om nie. Ek wou tog nie jou vriend wees nie!", het sy werkelik dit bedoel?
4. Wat kan Anthea nou doen?
Story 8: Original Title "Duso and Squeaker" (Unit VI, Introductory Story)

Purpose

(1) To enable children to see themselves as competent and able to achieve;

(2) To emphasize the need to develop confidence in the things they can do; to understand things they cannot do; and

(3) To recognize the importance of past successes in planning for the future.

Snoekie en Klein Snoekie

Hullo, seuns en meisies. Ek is Snoekie die vis en ek het nog 'n storie vir julle. Vandag wil ek julle vertel van my neef, Klein Snoekie. Eendag, toe Klein Snoekie nog 'n jong vissie was, het ek hom treurig op die bodem van die see sien sit.

"Wat is verkeerd, Klein Snoekie"? het ek gevra. "Jy lyk baie ongelukkig."

"O, Oom Snoekie, ek dink nie dat ek ooit so goed soos jy sal kan leer swem nie", sê Klein Snoekie. "Jy kan so baie 'tricks' en dinge doen .... en al wat ek kan doen is maar om baie stadig te swem."

"Miskien moet jy jouself meer tyd gee", sê ek vir Klein Snoekie. "Jy is maar nog 'n jong snoekie."

"Dit maak nie saak nie hoe lank ek probeer nie, ek sal nooit so hoog uit die water kan spring soos jy nie", sê Klein Snoekie.

"Kom swem so bietjie saam met my", het ek gesê, "dan kan ons sien hoe hoog jy kan spring."

Toe sê ek vir Klein Snoekie, "O.K., kom ons kyk hoe hoog bo die water jy kan uitspring."

Die Klein Snoekie het vinnig geswem en toe so hoog as hy kon, in die lug gespring. "Jy het mos nou gesien, Oom Snoekie", het hy gesê toe hy terugswem, "dit maak nie saak hoe hard ek probeer nie, ek kan nie eers my stert uit die water kry nie!"

"Maar, Klein Snoekie", het ek gesê, "dit was 'n goeie sprong vir 'n klein snoekie. Ek kan nog onthou toe jy maar net 'n baba was en geleer het om te swem."
Klein Snoekie het 'n bietjie gedink. „Ek het darem seker 'n paar dinge geleer vandat ek 'n baba was" , het hy gesê.

Terwyl ons rondwem, het ons verder gepraat. Klein Snoekie het begin sien dat hy besig was om meer te leer as wat hy gedink het.

„Baie dankie, Oom Snoekie" , het Klein Snoekie gesê toe hy wegswem, „ek sien nou ek dinge kan leer. Ek sal aanhou om te oefen. En, as ek elke dag maar net 'n bietjie leer, sal ek binnekort net so goed swem en spring as wat jy kan!"

Questions/Discussion

(1) Hoekom was Klein Snoekie ongelukkig?
(2) Hoe het Snoekie vir Klein Snoekie probeer help?
(3) Kan Klein Snoekie hoër as 'n Baba Snoekie spring?
(4) Sal Klein Snoekie kan leer om hoër te spring?
Aims

(1) The development of the ability to recognise and cope with anxieties;

(2) The discussion of the relationship of behaviour to its causes and purposes; and

(3) The recognition of anxiety provoking situations in the child's own experiences and behaviour.

Die Hardlooper/'Jogger'

Amper elke middag, as Amien se pa van die werk af kom, trek hy sy hardloop klere aan en dan draf hy hy die straat af.

Hy hardloop om die hoek en hou aan hardloop totdat hy weer by die huis kom. Maar, in plaas daarvan dat hy stap, hou hy aan hardloop al om die blok. As hy uiteindelik opgehou het om te hardloop, het hy baie warm en moeg gelyk.

Amien het daarvan gehou om te kyk hoe sy pa hardloop. Maar, hy kan nie verstaan waarom sy pa wou hardloop nie. Sy pa sou hardloop, en hardloop, maar hy het nooit êrens gekom nie want hy het maar altyd opgehou waar hy begin het.

As jy nie iets verstaan nie, is dit die beste om te vra.

So, eendag het Amien vir sy pa gevra, "Pa, hoekom hardloop jy al om die blok? Hou jy daarvan om moeg en warm te word?"

Amien se pa het net gelag. "Ek hardloop om fiks te bly en dit help my ook om te ontspan, Amien."

"Wat beteken outspan, pa?"

"As ek by die werk is", sê Amien se pa, "is daar baie dinge waaroor ek moet dink. Teen die tyd dat ek by die huis kom, is my kop al moeg en al die dink, terwyl my liggaam glad nie moeg is nie. Ek hardloop om my liggaam net so moeg soos my kop te kry. Dan kan ek ontspan en dit geniet om lekker stil te sit en met jou te gesels."

Amien het baie mooi geluister. Toe sê hy, "O, ek verstaan. As jy hardloop, help dit jou nie senuweeagtig en bekommerd te wees en dan vir my te skel nie." Amien se pa het weer gelag. "Dis 'n goeie manier om dit te stel, Amien. Soms, as ek senuweeagtig is of my oor iets bekommer, voel ek nie baie lekker nie, dan skel ek vir jou wanneer ek liever met jou moet gesels."
"Ek dink om te hardloop is 'n goeie idee, pa. Miskien is dit iets wat Edward moet doen."

"Wie is Edward?" vra Amien se pa.

"Hy is 'n seun by die skool. Sy pa is al lank van die huis af weg, en Edward word net al hoe erger. Hy speel nie meer met die ander kinders nie. En, soms, as jy vir hom probeer help, skel hy net vir jou."

"Wel, Amien, ek weet nie of Edward moet hardloop nie. Verskillende mense het hul eie maniere om te ontspan of stoom af te blaas", sê sy pa, "maar dit klink as of iets jou vriend baie hinder."

Questions/Discussion

1. Amien het nie verstaan hoekom sy pa gehardloop het nie:
   (a) Hoe het hy die rede uitgevind?
   (b) Vir wie kan jy iets vra as jy dit nie verstaan nie?
   (c) Hoekom het Amien se pa gehardloop?

2. (a) Wat beteken dit om 'stoom af te blaas'?
    (b) Nadat Amien se pa stoom af geblaas het, kon hy ontspan. Wat beteken 'ontspan'?

3. (a) Behalwe om te hardloop, wat kan jy nog doen om te ontspan?
    (b) Wat doen jy om te ontspan?
Story 10: Original Title "Peekaboo Emu" (Unit VI, Cycle D)

Aims
(1) To indicate the importance of self-confidence by:
   - Showing that without confidence one remains inhibited by fear and discouragement;
   - Showing that with self-esteem one can try, fail, succeed and learn;
   - Showing that the difference between success and failure is often merely a matter of attitude;
   and
(2) To explain that one's opinion of one's ability is every bit as important as the ability itself.

Die Bang Volstruis

Hullo, seuns en meisies. Dis weer ek, Snoekie die vis, en ek het nog 'n storie vir julle. Een sonnige middag, toe ek in die son le en bak het, het ek voetstappe op die rivier se wal gehoor. Ek het opgekyk en 'n lang, groot volstruis aangestap sien kom. 'n Volstruis is maar gewoonlik 'n snaakse voël met sy lang, maer nek en bene. Maar, hierdie voël het baie ongelukkig gelyk, haar kop het laag, amper tot op die grond gehang, en sy het die hele tyd vir haarself gesê, "... die vrotste een ... die slegste ou volstruis in die hele wereld ... kan niks regkry nie ..."

Ek het uitgeroep, "Môre, Mevrou Volstruis".

Toe die volstruis my hoor praat, het sy onmiddelik haar lang nek tussen haar bene gesit, en skamerig oor haar rug geroer. "Wie is dit?", vra sy skrikkerig. "Dis ek", sê ek.

"O! O maggies!" sê die volstruis, terwyl sy bangerig haar kop agter haar rug wegsteek. "My naam is Snoekie, die vis", het ek gesê. "Ek glo nie dat ons al ontmoet het nie.Wat is jou naam?"

Verbaas, steek die volstruis haar kop uit agter haar rug. "Ek? O nee! Ek is nie belangrik nie ... ek is net 'n ou volstruis ... ek is glad nie belangrik nie ... jy wil tog nie vir my ontmoet nie!"

"Wel", sê ek, "ek will graag weet wat jou naam is omdat ek dink dat almal belangrik is."

"My naam? ... O ... My naam ... Wel, amper almal noem
vir my Kop Onderstebo", sê die groot voël, terwyl sy haar kop na vorentoe bring.

"Kop Onderstebo!" sê ek. "Hoekom noem hulle jou dit?"

Die volstruis het nader gestap en daar naby my op die rivier se wal gaan sit. Maar toe sy praat, was sy baie skrikkerig. Sy het verduidelik dat die ander diere haar Kop Onderstebo noem omdat sy so skaam was en altyd haar kop agter haar rug weggesteek het.

"Maar hoekom is jy so skaam?" het ek gevra. "En, hoekom dink jy dat jy nie belangrik is nie?"

"Ek is die slegste ou volstruis in die hele wêreld, en ek kan niks reg kry nie", sê Kop Onderstebo.

"Voel jy dan dat jy niks kan doen nie - al wil jy dit graag doen?"

"Dis reg", sê Kop Onderstebo, "dis presies reg - ek kan nie doen wat ek wil doen nie."

"Wat is dit wat jy dan wil doen?" het ek gevra. "Wel", sê Kop Onderstebo, "h volstruis is 'n voël en voëls moet kan vlieg. Maar, my klein vlerkies laat my nie vlieg nie."

"Voel jy dan dat jy moet vlieg?" vra ek. "Ja, dis my probleem!", sê die volstruis. "En, omdat ek nie kan vlieg nie, voel ek dat ek niks werd is nie."

"Maar, miskien is daar dinge wat 'n landvoël kan doen wat ander voëls nie kan doen nie", het ek gesê.

"Wel", sê die volstruis, "my sterk bene help my om baie vinnig to hardloop en ook baie hard to skop."

"Hmm", het ek gesê. "Dis h belangrike ding; ek is seker dat die ander voëls graag vinnig sou wou hardloop en hard sou wou skop."

Kop Onderstebo volstruis het begin beter voel. "Daar is seker maar dinge wat ek kan doen", het sy gesê.

Questions/Discussion
(1) In ons storie het Kop Onderstebo volstruis skaam en skrikkerig gevoel:
   (a) Wat betekent dit?
   (b) Hoekom het Kop Onderstebo ongelukkig omtrent haarself gevoel?
(2) Snoekie sê dat almal belangrik is. Hoe was Kop Onderstebo belangrik?

(3) Kop Onderstebo het uitgevind dat almal iets kan doen:
   (a) Kan alle seuns en meisies iets goed doen?
   (b) Kan jy iets goed doen?
BODY-IMAGE DISTURBANCE SCORING*

One penalty point to be assigned for each of the following signs of body-image disturbance:

1. Erasures.
2. Transparency (figure defies laws of perspective regarding masking of objects when behind other objects).
3. Lack of any body part.
4. Nose indicated by two nostril dots.
5. Mouth indicated by a line only.
6. One or more arms behind back.
7. Very crude or peculiar clothing.
8. Shading of body.
9. Lack of delineating lines (e.g. cuffs, collar, etc.).
10. Figure markedly off-balance.
11. Figure very small (less than half the length of the page).
12. Markedly unusual shading or elaboration of crotch area.

*This scale and scoring procedure are based on Fisher's scale of the same name (see "Body Reactivity Gradients and Figure Drawing Variables", Journal of Consulting Psychology, 1959, 23, pp.54-59). An item included in the original scale, which deals with the lack of breasts in a female drawing, has, due to the young age of the subjects, been excluded here.
8. Example of Body-Image Disturbance and Aggression Scoring
SUBJECT: L.A.
FEMALE
9 YEARS OLD
EXTENSIVE BURNS HEAD, ARMS AND HANDS

"OTHER"

BODY-IMAGE DISTURBANCE
SCORE: 2 (lack of body parts - ears and fingers, and crude clothing)

AGGRESSION
SCORE: 2 (squared shoulders and spiked fingers)
SUBJECT: L.A.
FEMALE
9 YEARS OLD
EXTENSIVE BURNS HEAD; ARMS AND HANDS

SELF

BODY-IMAGE DISTURBANCE
SCORE: 1 (lack of body parts - ears and fingers)

AGGRESSION
SCORE: 2 (squared shoulders and spiked fingers)
9. Scoring Procedure for Aggression on the Draw-a-Person Test
AGGRESSION SCORING

A penalty point should be assigned to each of the following, where applicable:

1. Slash-line mouth.
2. Detailed teeth.
5. Nostrils emphasized.
7. Toes in non-nude figures.

*This scale is based on a scale designed by Goldstein & Rawn, 1957 ("The Validity of Interpretations of Aggression in the Drawings of the Human Figure", Journal of Clinical Psychology, 1957, 13, 169-171). Due to Goldstein & Rawn's findings that heavy line pressure and large figure size were not valid indicators of aggression, these two items were not included.
10. Raw Data
RAW SCORES: OVERALL SELF-CONCEPT

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>71</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>57</td>
</tr>
<tr>
<td>Burn Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>78</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>53</td>
<td>59</td>
</tr>
<tr>
<td>Non-Burn Control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>84</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>68</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>73</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>79</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>51</td>
<td>49</td>
</tr>
</tbody>
</table>
### RAW SCORES : SOCIAL-SELF

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burn Control Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Burn Control Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>
## RAW SCORES: PARENTAL-SELF

### Burn Treatment Group

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>9</td>
</tr>
</tbody>
</table>

### Burn Control Group

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

### Non-Burn Control Group

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>14</td>
</tr>
</tbody>
</table>
## RAW SCORES: PHYSICAL SELF

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

**Burn Treatment Group**

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
</tr>
</tbody>
</table>

**Burn Control Group**

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>20</td>
<td>17</td>
</tr>
</tbody>
</table>

**Non-Burn Control Group**
## Raw Scores: School-Self

<table>
<thead>
<tr>
<th>Burn Treatment Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Burn Control Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Burn Control Group</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
### RAW SCORES: BODY-IMAGE DISTURBANCE SCORES

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Burn Treatment Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td><strong>Burn Control Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td><strong>Non-Burn Control Group</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>
RAW SCORES: AGGRESSION

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
### 11. Statistical Analyses: Computer Printouts

<table>
<thead>
<tr>
<th>Category</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Self-Concept</td>
<td>277-278</td>
</tr>
<tr>
<td>Social-Self</td>
<td>279-281</td>
</tr>
<tr>
<td>Parental-Self</td>
<td>282-283</td>
</tr>
<tr>
<td>Physical-Self</td>
<td>284-287</td>
</tr>
<tr>
<td>School-Self</td>
<td>288-289</td>
</tr>
<tr>
<td>Body-Image Disturbance</td>
<td>290-291</td>
</tr>
<tr>
<td>Aggression</td>
<td>292-293</td>
</tr>
</tbody>
</table>
**Two-Way Analysis of Variance**

With repeated measures on factor B

No of levels of factor A (no max)? >3
No of levels of factor B (max=10)? >2

No of subjects at A 1 (max=40)? >9

<table>
<thead>
<tr>
<th>Cell</th>
<th>A 1</th>
<th>B 1</th>
<th>A 2</th>
<th>B 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>64.111111</td>
<td>SDEV = 17.947455</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>67.777778</td>
<td>SDEV = 16.076208</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>65.333333</td>
<td>SDEV = 10.747093</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>68.777778</td>
<td>SDEV = 8.6570467</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NO OF SUBJECTS AT A 3 (MAX=40) ? >9

CELL A 3 B 1
? >84
? >69
? >68
? >73
? >75
? >82
? >56
? >79
? >51
ERROR ? >0
MEAN = 70.777778 SDEV = 11.244753

CELL A 3 B 2
? >83
? >68
? >64
? >69
? >79
? >83
? >60
? >79
? >49
ERROR ? >0
MEAN = 70.444444 SDEV = 11.620148

ANOVA SUMMARY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>213.93237</td>
<td>2</td>
<td>106.96619</td>
<td>3.3169224</td>
</tr>
<tr>
<td>SUBJ.W.G.</td>
<td>7739.6699</td>
<td>24</td>
<td>322.48624</td>
<td></td>
</tr>
<tr>
<td>WITHIN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>68.912842</td>
<td>1</td>
<td>68.912842</td>
<td>3.1799119</td>
</tr>
<tr>
<td>AB</td>
<td>45.474609</td>
<td>2</td>
<td>22.737305</td>
<td>1.0491894</td>
</tr>
<tr>
<td>B X SWG</td>
<td>520.11133</td>
<td>24</td>
<td>21.671305</td>
<td></td>
</tr>
</tbody>
</table>

CHECK ON HOMOGENEITY OF ERROR TERMS

F MAX (SUBJ.W.G.) = 2.9728122 DF = 3 8
F MAX (B X SWG) = 11.2 DF = 3 8
ANOVA WITH REPEATED MEASURES ON FACTOR B

NO OF LEVELS OF FACTOR A (NO MAX) > 3
NO OF LEVELS OF FACTOR B (MAX=10) > 2

NO OF SUBJECTS AT A 1 (MAX=40) > 9

CELL A 1 B 1
? > 17
? > 13
? > 20
? > 10
? > 8
? > 20
? > 18
? > 17
? > 16
ERROR ? > 0

MEAN = 15.444444 SDEV = 4.2459131

CELL A 1 B 2
? > 20
? > 13
? > 19
? > 17
? > 11
? > 20
? > 19
? > 20
? > 14
ERROR ? > 0

MEAN = 17 SDEV = 3.4641016

NO OF SUBJECTS AT A 2 (MAX=40) > 9

CELL A 2 B 1
? > 11
? > 16
? > 18
? > 17
? > 19
? > 14
? > 19
? > 14
? > 15
ERROR ? > 0

MEAN = 15.888889 SDEV = 2.6666673

CELL A 2 B 2
? > 13
? > 15
? > 20
? > 19
? > 19
? > 15
? > 18
? > 14
? > 16
ERROR ? > 0

MEAN = 16.555555 SDEV = 2.5055496
NO OF SUBJECTS AT A 3 (MAX=40) >9

CELL A 3 B 1
? >20
? >17
? >18
? >18
? >20
? >20
? >14
? >19
? >8
ERROR? >0

MEAN = 17.111111 SDEV = 3.9193258

CELL A 3 B 2
? >20
? >16
? >16
? >16
? >20
? >19
? >16
? >16
? >10
ERROR? >0

MEAN = 16.555555 SDEV = 3.0459446

ANOVA SUMMARY

SOURCE SS DF MS F RATIO

BETWEEN SUBJ
-----------
 A 4.4814606 2 2.2407303 1.0837386
SUBJ.W.G 496.22229 24 20.675929

WITHIN SUBJ
-----------
 B 4.1668396 1 4.1668396 2.0738159
AB 10.110992 2 5.0554962 2.5160959
B X SWG 48.22229 24 2.0092621

CHECK ON HOMOGENEITY OF ERROR TERMS

F MAX (SUBJ.W.G.) = 2.0780216 DF = 3 8
F MAX (B X SWG) = 5.018514 DF = 3 8
2-WAY ANOVA : SIMPLE MAIN EFFECTS

NO REP. MEAS. (ENTER 0)
REPEATED MEAS. ON B (1)
REPEATED MEAS. ON A & B (2) ? >1
LEVELS OF A (MAX=10) ? >3
LEVELS OF B (MAX=10) ? >2

MS (SUBJ.W.G) ? >20.6759
MS (B X SWG) ? >2.0092621

CELL A 1 B 1
N IN CELL ? >9
MEAN ? >15.44

CELL A 1 B 2
N IN CELL ? >9
MEAN ? >17

CELL A 2 B 1
N IN CELL ? >9
MEAN ? >15.89

CELL A 2 B 2
N IN CELL ? >9
MEAN ? >16.56

CELL A 3 B 1
N IN CELL ? >9
MEAN ? >17.11

CELL A 3 B 2
N IN CELL ? >9
MEAN ? >16.56

MEANS SUMMARY
A MEANS
16.22 16.225 16.835
B MEANS
16.146666 16.70666

SUMMARY TABLE

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A AT B 1</td>
<td>13.439331</td>
<td>2</td>
<td>6.7196655</td>
<td>.59242825</td>
</tr>
<tr>
<td>A AT B 2</td>
<td>1.1616211</td>
<td>2</td>
<td>.58081055</td>
<td>.05120621</td>
</tr>
<tr>
<td>B X CELLS</td>
<td>544.44389</td>
<td>48</td>
<td>11.342581</td>
<td></td>
</tr>
<tr>
<td>B AT A 1</td>
<td>10.951172</td>
<td>1</td>
<td>10.951172</td>
<td>5.450345</td>
</tr>
<tr>
<td>B AT A 2</td>
<td>2.0200806</td>
<td>1</td>
<td>2.0200806</td>
<td>1.0053843</td>
</tr>
<tr>
<td>B AT A 3</td>
<td>1.3612671</td>
<td>1</td>
<td>1.3612671</td>
<td>.67749602</td>
</tr>
<tr>
<td>B X SWG</td>
<td>48.222291</td>
<td>24</td>
<td>2.0092621</td>
<td></td>
</tr>
</tbody>
</table>
WITH REPEATED MEASURES ON FACTOR B

NO OF LEVELS OF FACTOR A (NO MAX) ? >3
NO OF LEVELS OF FACTOR B (MAX=10) ? >2

NO OF SUBJECTS AT A 1 (MAX=40) ? >9

<table>
<thead>
<tr>
<th>Cell</th>
<th>A 1</th>
<th>B 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;13</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>&gt;0</td>
<td></td>
</tr>
</tbody>
</table>

MEAN = 15.666667 SDEV = 4.153319

NO OF SUBJECTS AT A 2 (MAX=40) ? >9

<table>
<thead>
<tr>
<th>Cell</th>
<th>A 1</th>
<th>B 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;9</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>&gt;0</td>
<td></td>
</tr>
</tbody>
</table>

MEAN = 15.666667 SDEV = 4.4158804

NO OF SUBJECTS AT A 2 (MAX=40) ? >9

<table>
<thead>
<tr>
<th>Cell</th>
<th>A 2</th>
<th>B 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;17</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>&gt;0</td>
<td></td>
</tr>
</tbody>
</table>

MEAN = 15.666667 SDEV = 2.3979158

<table>
<thead>
<tr>
<th>Cell</th>
<th>A 2</th>
<th>B 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;19</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td>&gt;0</td>
<td></td>
</tr>
</tbody>
</table>

MEAN = 16.333333 SDEV = 3.0413812
NO OF SUBJECTS AT A 3 (MAX=40) >9

CELL A3 B1
? >19
? >12
? >12
? >16
? >20
? >9
? >19
? >15
ERROR ? >0
MEAN = 15.666667 SDEV = 3.937039

CELL A3 B2
? >19
? >11
? >12
? >18
? >20
? >20
? >11
? >20
? >14
ERROR ? >0
MEAN = 16.111111 SDEV = 4.044874

ANOVA SUMMARY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>1.0372467</td>
<td>2</td>
<td>.51862335</td>
<td>.02001834</td>
</tr>
<tr>
<td>SUBJ.W.G.</td>
<td>621.77783</td>
<td>24</td>
<td>25.90741</td>
<td></td>
</tr>
<tr>
<td>WITHIN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1.8518829</td>
<td>1</td>
<td>1.8518829</td>
<td>.9434126</td>
</tr>
<tr>
<td>AB</td>
<td>1.036972</td>
<td>2</td>
<td>.51846602</td>
<td>.26413454</td>
</tr>
<tr>
<td>B X SWG</td>
<td>47.111084</td>
<td>24</td>
<td>1.9629618</td>
<td></td>
</tr>
</tbody>
</table>

CHECK ON HOMOGENEITY OF ERROR TERMS

F MAX (SUBJ.W.G.) = 2.3214286 DF = 3 8
F MAX (B X SWG) = 6.6522092 DF = 3 8
TWO-WAY ANALYSIS OF VARIANCE
WITH REPEATED MEASURES ON FACTOR B

NO OF LEVELS OF FACTOR A (NO MAX) ? >3
NO OF LEVELS OF FACTOR B (MAX=10) ? >2

NO OF SUBJECTS AT A 1 (MAX=40) ? >9
CELL A 1 B 1
? >24
? >22
? >20
? >21
ERROR ? >0
MEAN = 17.777778 SDEV = 6.0781943

CELL A 1 B 2
? >25
? >23
? >22
? >21
ERROR ? >0
MEAN = 19.333333 SDEV = 5.5677643

NO OF SUBJECTS AT A 2 (MAX=40) ? >9
CELL A 2 B 1
? >14
? >25
? >23
? >20
? >21
? >12
? >22
? >21
? >23
? >22
ERROR ? >0
MEAN = 17.444444 SDEV = 5.3176854

CELL A 2 B 2
? >15
? >24
? >23
? >16
? >25
? >15
? >18
? >12
? >14
ERROR ? >0
MEAN = 18 SDEV = 4.7958315
NO OF SUBJECTS AT A 3 (MAX=40) ? >9

CELL A 3 B 1
? >25
? >23
? >21
? >21
? >17
? >23
? >24
? >24
? >20
ERROR ? >0
MEAN = 22 SDEV = 2.5

CELL A 3 B 2
? >25
? >23
? >21
? >21
? >17
? >23
? >24
? >24
? >20
ERROR ? >0
MEAN = 21.666667 SDEV = 2.9580399

ANOVA SUMMARY

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>BETWEEN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>170.03732</td>
<td>2</td>
<td>85.018661</td>
<td>1.9665912</td>
</tr>
<tr>
<td>SUBJ.W.G</td>
<td>1037.5557</td>
<td>24</td>
<td>43.231486</td>
<td></td>
</tr>
<tr>
<td>WITHIN SUBJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>4.7411499</td>
<td>1</td>
<td>4.7411499</td>
<td>3.1413801</td>
</tr>
<tr>
<td>AB</td>
<td>8.0367737</td>
<td>2</td>
<td>4.0183868</td>
<td>2.6624934</td>
</tr>
<tr>
<td>B X SWG</td>
<td>36.222168</td>
<td>24</td>
<td>1.509257</td>
<td></td>
</tr>
</tbody>
</table>

CHECK ON HOMOGENEITY OF ERROR TERMS

F MAX (SUBJ.W.G.) = 4.4434867 DF = 3 8
F MAX (B X SWG) = 7.0277863 DF = 3 8
NO REP. MEAS. (ENTER 0)
REP. MEAS. ON B (1)
REP. MEAS. ON A & B (2) ? >1

LEVELS OF A (MAX=10) ? >3
LEVELS OF B (MAX=10) ? >2

MS (SUBJ.W.G) ? >43.231486
DF ? >24
MS (B X SWG) ? >1.509257
DF ? >24

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F RATIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>A AT B 1</td>
<td>116.15295</td>
<td>2</td>
<td>58.076477</td>
<td>2.5961338</td>
</tr>
<tr>
<td>A AT B 2</td>
<td>62.140503</td>
<td>2</td>
<td>31.070251</td>
<td>1.3889019</td>
</tr>
<tr>
<td>W CELL</td>
<td>1073.7778</td>
<td>48</td>
<td>22.370371</td>
<td></td>
</tr>
<tr>
<td>B AT A 1</td>
<td>10.811218</td>
<td>1</td>
<td>10.811218</td>
<td>7.1632718</td>
</tr>
<tr>
<td>B AT A 2</td>
<td>1.4111938</td>
<td>1</td>
<td>1.4111938</td>
<td>.93502554</td>
</tr>
<tr>
<td>B AT A 3</td>
<td>.49023438</td>
<td>1</td>
<td>.49023438</td>
<td>.32481835</td>
</tr>
<tr>
<td>B X SWG</td>
<td>36.222168</td>
<td>24</td>
<td>1.509257</td>
<td></td>
</tr>
</tbody>
</table>
Tukey's Pairwise Comparisons (Cell Means)

$A_1B_1 - A_2B_1$

\[ t' = \frac{17.78 - 17.44}{\sqrt{\frac{22.3704}{9}}} \]
\[ = 0.2157 \]

$A_1B_1 - A_3B_1$

\[ t = \frac{17.78 - 22.0}{\sqrt{\frac{22.3704}{9}}} \]
\[ = -2.6767 \]

$A_2B_1 - A_3B_1$

\[ t = \frac{22.0 - 17.44}{\sqrt{\frac{22.3704}{9}}} \]
\[ = 2.8923 \]

Critical Values

$\begin{align*}
\text{t'} & \quad 0.05 \quad 3:48 \approx 3.43 \\
\text{t'} & \quad 0.01 \quad 3:48 \approx 4.33
\end{align*}$
WITH REPEATED MEASURES ON FACTOR B

NO OF LEVELS OF FACTOR A (NO MAX) ? >3
NO OF LEVELS OF FACTOR B (MAX=10) ? >2

NO OF SUBJECTS AT A 1 (MAX=40) ? >9

CELL A 1 B 1
>19
>9
>20
>6
>13
>20
>19
>17
>14
ERROR ? >0
MEAN = 15.222222 SDEV = 5.0935691

CELL A 1 B 2
>20
>13
>20
>14
>8
>19
>18
>18
>12
ERROR ? >0
MEAN = 15.777778 SDEV = 4.2064767

NO OF SUBJECTS AT A 2 (MAX=40) ? >9

CELL A 2 B 1
>14
>16
>19
>17
>19
>16
>18
>13
>15
ERROR ? >0
MEAN = 16.333333 SDEV = 2.1213203

CELL A 2 B 2
>19
>12
>19
>19
>17
>16
>19
>15
>16
ERROR ? >0
MEAN = 16.888889 SDEV = 2.4209739
NO OF SUBJECTS AT A 3 (MAX=40) >9

CELL A 3 B 1
? >20
? >17
? >16
? >18
? >19
? >9
? >17
? >8
ERROR ? >0
MEAN = 15.888889  SDEV = 4.371626

CELL A 3 B 2
? >19
? >16
? >14
? >20
? >9
? >8
ERROR ? >0
MEAN = 15.555555  SDEV = 4.4472214

ANOVA SUMMARY

SOURCE SS     DF     MS     F RATIO
BETWEEN SUBJ
------------
A       12.444763  2   6.2223816  .22803429
SUBJ.W.G 654.88904 24   27.287043
WITHIN SUBJ
----------
B       .90774536  1   .90774536  .24694313
AB      2.3700256  2   1.1850128  .32237099
B X SWG 88.22229 24   3.6759287

CHECK ON HOMOGENEITY OF ERROR TERMS

F MAX (SUBJ.W.G.) = 5.3561598 DF = 3 8
F MAX (B X SWG) = 7.8730207 DF = 3 8
NO OF LEVELS OF FACTOR A (NO MAX) \( \geq 3 \)
NO OF LEVELS OF FACTOR B (MAX=10) \( \geq 2 \)

NO OF SUBJECTS AT A 1 (MAX=40) \( \geq 9 \)

CELL A 1 B 1
\( \geq 12 \)
\( \geq 12 \)
\( \geq 9 \)
\( \geq 10 \)
\( \geq 9 \)
\( \geq 10 \)
\( \geq 8 \)
\( \geq 11 \)
\( \geq 9 \)
ERROR \( \leq 0 \)

MEAN = 10 SDEV = 1.4142136

CELL A 1 B 2
\( \geq 10 \)
\( \geq 12 \)
\( \geq 9 \)
\( \geq 7 \)
\( \geq 10 \)
\( \geq 10 \)

IMPROPER INPUT FOR VARIABLE TYPES -- ENTER YOUR INPUT AGAIN IN 430.

\( \geq 10 \)
\( \geq 8 \)
\( \geq 9 \)
\( \geq 7 \)
ERROR \( \leq 0 \)

MEAN = 9.111111 SDEV = 1.6158934

NO OF SUBJECTS AT A 2 (MAX=40) \( \geq 9 \)

CELL A 2 B 1
\( \geq 10 \)
\( \geq 7 \)
\( \geq 3 \)
\( \geq 8 \)
\( \geq 10 \)
\( \geq 8 \)
\( \geq 12 \)
\( \geq 8 \)
\( \geq 10 \)

ERROR \( \leq 0 \)

MEAN = 8.444444 SDEV = 2.5549518

CELL A 2 B 2
\( \geq 10 \)
\( \geq 8 \)
\( \geq 3 \)
\( \geq 8 \)
\( \geq 8 \)
\( \geq 12 \)
\( \geq 13 \)
\( \geq 9 \)
\( \geq 10 \)

ERROR \( \leq 0 \)

MEAN = 9 SDEV = 2.8722813
NO OF SUBJECTS AT A 3 (MAX=40) ? >9

CELL A 3 B 1
? >12
? >6
? >5
? >10
? >9
? >8
? >6
? >7
? >10
ERROR ? >0
MEAN = 8.11111  SDEV = 2.3154074

CELL A 3 B 2
? >9
? >8
? >10
? >8
? >5
? >2
? >10
ERROR ? >0
MEAN = 7.3333333  SDEV = 3.1622776

ANOVA SUMMARY

SOURCE  SS     DF  MS      F RATIO
BETWEEN SUBJ
---------
A   30.333424  2  15.166712  1.5251441
SUBJ.W.G  238.66669  24  9.9444453
WITHIN SUBJ
---------
B   1.8519516  1  1.8519516  1.1300032
A*B  5.8147202  2  2.9073601  1.7739806
B X SWG  39.333374  24  1.6388906

CHECK ON HOMOGENEITY OF ERROR TERMS
F MAX (SUBJ.W.G.) = 3.6716965  DF = 3 8
F MAX (B X SWG) = 2.9253749  DF = 3 8
TWO-WAY ANALYSIS OF VARIANCE
WITH REPEATED MEASURES ON FACTOR B

NO OF LEVELS OF FACTOR A (NO MAX) ? >3
NO OF LEVELS OF FACTOR B (MAX=10) ? >2

NO OF SUBJECTS AT A 1 (MAX=40) ? >9

CELL A 1 B 1
? >2
? >1
? >2
? >0
? >2
? >0
? >2
? >0
? >1
ERROR ? >0

MEAN = 1.1111111 SDEV = .92796074

CELL A 1 B 2
? >2
? >2
? >1
? >0
? >2
? >0
? >1
ERROR ? >0

MEAN = 1.2222222 SDEV = .83333333

NO OF SUBJECTS AT A 2 (MAX=40) ? >9

CELL A 2 B 1
? >0
? >1
? >4
? >0
? >0
? >2
? >0
? >1
? >2
ERROR ? >0

MEAN = 1.1111111 SDEV = 1.3642255

CELL A 2 B 2
? >0
? >0
? >4
? >0
? >0
? >0
? >3
? >0
? >2
? >2
ERROR ? >0

MEAN = 1.2222222 SDEV = 1.5634719
No of Subjects at A 3 (Max=40) > 9

Cell A 3 B 1
? > 0
? > 3
? > 2
? > 1
? > 0
? > 2
? > 0
? > 2
Error > 0
Mean = 1.222222 SDEV = 1.0929064

Cell A 3 B 2
? > 0
? > 1
? > 2
? > 2
? > 1
? > 0
? > 2
? > 0
? > 2
Error > 0
Mean = 1.111111 SDEV = 0.92796074

ANOVA Summary

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
<th>F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subj</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>-1.0728836E-06</td>
<td>2</td>
<td>-5.364418E-07</td>
<td>2.2197592E-07</td>
</tr>
<tr>
<td>Subj.W.G</td>
<td>58</td>
<td>24</td>
<td>2.4166667</td>
<td></td>
</tr>
<tr>
<td>Within Subj</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>.01851797</td>
<td>1</td>
<td>.01851797</td>
<td>.08333086</td>
</tr>
<tr>
<td>AB</td>
<td>.14814913</td>
<td>2</td>
<td>.07407457</td>
<td>.33333551</td>
</tr>
<tr>
<td>B X SWG</td>
<td>5.333334</td>
<td>24</td>
<td>.22222225</td>
<td></td>
</tr>
</tbody>
</table>

Check on Homogeneity of Error Terms

F Max (Subj.W.G.) = 3 DF = 3 8
F Max (B X SWG) = 1.6923076 DF = 3 8

19 Jul 1983