STRUCTURING SOCIAL GROUP WORK TO ASSIST SOCIOECONOMICALLY DEPRIVED PUPILS WITH STUDY BEHAVIOURS

Mark Anstey

A dissertation submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Arts in Social Work.

Johannesburg, November, 1979
TO IRENE
DECLARATION

I hereby declare that this dissertation is my unaided work and that I have given full acknowledgements to sources I have used. Figures that appear in the text of this dissertation have been checked and are accurate.

[Signature]

M. ANSTEY
ACKNOWLEDGEMENTS

I wish to thank:

(a) all members of staff, and pupils, at Voorwaarts Primary School who involved themselves in this research project;

(b) my supervisor, Professor C. Muller, whose breadth of vision and concern for the poor provided initial direction for the study, and gave impetus to its completion;

(c) all those colleagues and friends who gave of their time and tolerance in assisting me to produce this document, especially:
Miss Anita Abro, who spent many of her spare hours proof-reading the work;
Miss Eleanor Lazaraw, and Mr. Todd Bruce, who patiently explored problems of statistical measurement and analysis with me; and
Mr. Brian McKendrick who willingly shared his expertise in advising me in the final production of this document;

(d) Mrs. Margaret Doyle, my typist, whose personal interest in the study enabled its efficient and rapid production, in final form; and finally,

(e) my wife, Irene, whose ongoing support and interest was so important to me; who spent so many hours in checking my work and giving her professional opinions on it; who forfeited many weekends of pleasure 'in the name of research', and who tolerated for so many months the unreasonable obsession required of one in producing a document of this nature.

A special note of thanks is extended to Anglo American Corporation without whose financial aid this study could not have been undertaken. Opinions expressed in the work do not necessarily reflect those of the Corporation.
ABSTRACT

In 1977, with the permission of the Administration of Coloured Affairs, the School of Social Work at the University of the Witwatersrand, initiated a student social work service in Coloured schools in the Johannesburg area. The writer, as part of this program, undertook the present study to explore some of the relevant literature on the socio-economically deprived child and his education, as it pertains to the Coloured child in South Africa; and thereafter to employ the preventive and rehabilitative approach of social group work, in conjunction with techniques of behaviour modification, to try to assist selected standard five pupils with their study behaviours, in the hopes of improving their classroom behaviour and academic performance in school.

The intervenive strategy employed by the writer revealed that within the group situation pupils were able to successfully modify behaviours inhibiting study, on application of a token economy. However, owing to environmental obstacles, such behaviour change was not transferred to the classroom situation. In addition, no statistically significant improvements in group members' academic performance or self-esteem occurred as a result of the group work program.

The writer concludes that in seeking to assist the deprived child become a self-determining adult, and to break the repetitive cycle of an impoverished community, education would seem the natural area of intervention to begin. However, intervention to improve the intelligence or academic performance of the deprived child is an exceedingly complex task, demanding knowledge and skills in areas such as the psychology of education, motivation, behaviour, genetics and systems theory. Efforts to bring about change in this area through purely environmental or behavioural approaches have proved ineffective in the past, and the present study is no exception to this.

Nevertheless, techniques of behaviour modification, and an understanding of processes of social influence in groups, might profitably be used by school teachers for classroom management purposes. In this respect, social workers might play a useful role in schools as 'behavioural consultants'. However, to ensure success in this role it is of importance to be accepted as part of the school system by school personnel, and that a co-operative alliance be established with relevant teachers, who will be mediators in behavioural change programs.
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration</td>
<td>i</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>ii</td>
</tr>
<tr>
<td>Abstract</td>
<td>i.i</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>List of Figures</td>
<td></td>
</tr>
<tr>
<td>List of Tables</td>
<td></td>
</tr>
</tbody>
</table>

Chapter 1 - Introduction

1.1 Motivation for the study 1
1.2 Aims of the study 2
1.3 Setting of the study 3
1.4 Research design 4
1.5 Research hypothesis 4
1.6 Research methodology 4
1.7 Research tools 6
1.8 Limitations of research design, methodology and measurement 9
1.9 Definition of terms 11
1.10 Use of references 13

Part 1: 'Tuning in'

Chapter 2 - The school in a deprived community: preparing for intervention

2.1 A systems model as a framework for 'tuning in' to the school 15
2.2 Input 18
2.3 Input: determiners 18
2.3.1 The Coloured population of South Africa: a broad picture 13
2.3.2 Education and the Coloured people: a background 20
2.4 Input: components 23
2.4.1 The pupil in a socioeconomically deprived environment 23
2.4.1.1 The question of potential: the nature/nurture controversy 23
2.4.1.2 The developing child in a socioeconomically deprived environment: psychosocial aspects 24
2.4.1.3 The deprived child in school 28
2.4.2 The teacher 31
2.4.3 The school 32
2.4.4 The parents 32
2.5 Output 32
2.6 Throughput 33
2.6.1 Selecting a subsystem for intervention 35
2.6.2 The production system: classroom dynamics 36
2.7 The cyclical nature of systems 39

Chapter 3 - Social group work: selecting a method for intervention 41
3.1 Social group work: an historical perspective 42
3.2 A rationale for the use of social group work as a means of social work intervention 42
3.3 An overview of modern theories of social group work 43
3.4 The preventive and rehabilitative approach 46
3.5 The suitability of various approaches of social group work for use in schools 50
3.5.1 The developmental approach 50
3.5.2 The mediating approach 50
3.5.3 The preventive and rehabilitative approach 52
3.6 A review of relevant studies on group work in the school setting 53

Chapter 4 - Behaviour modification: selecting techniques for intervention 56
4.1 The social learning approach 57
4.2 Behaviour modification 58
4.3 Assessment procedures 58
4.4 Treatment techniques 60
4.5 An overview of studies of behaviour modification in the classroom 62
4.6 The token economy 64
4.7 Summary 64
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2</td>
<td>Worker activities and tasks</td>
<td>103</td>
</tr>
<tr>
<td>9.3</td>
<td>Program</td>
<td>103</td>
</tr>
<tr>
<td>9.4</td>
<td>Task activities and processes in the group</td>
<td>106</td>
</tr>
<tr>
<td>9.4.1</td>
<td>A process analysis of group task activities and processes</td>
<td>107</td>
</tr>
<tr>
<td>9.4.2</td>
<td>Summary evaluation of task activities and processes in the group</td>
<td>107</td>
</tr>
<tr>
<td>9.5</td>
<td>Social activities and processes in the group</td>
<td>111</td>
</tr>
<tr>
<td>9.5.1</td>
<td>Membership</td>
<td>111</td>
</tr>
<tr>
<td>9.5.2</td>
<td>Roles</td>
<td>112</td>
</tr>
<tr>
<td>9.5.3</td>
<td>Scapegoating</td>
<td>114</td>
</tr>
<tr>
<td>9.5.3.1</td>
<td>A process analysis of scapegoating in the group</td>
<td>115</td>
</tr>
<tr>
<td>9.5.4</td>
<td>Cohesiveness and autonomy in the group</td>
<td>121</td>
</tr>
<tr>
<td>9.5.4.1</td>
<td>A process analysis of cohesiveness and autonomy in the group</td>
<td>121</td>
</tr>
<tr>
<td>9.5.5</td>
<td>Mediating group sanctions and defining limits of behaviour: establishing behavioural norms in the group</td>
<td>123</td>
</tr>
<tr>
<td>9.5.5.1</td>
<td>A process analysis of mediation of sanctions and definition of behavioural limits in the group</td>
<td>123</td>
</tr>
<tr>
<td>9.6</td>
<td>Negotiating contract</td>
<td>124</td>
</tr>
<tr>
<td>10.1</td>
<td>Characteristics of groups at intermediate stage II of development</td>
<td>130</td>
</tr>
<tr>
<td>10.2</td>
<td>Worker activities and tasks</td>
<td>132</td>
</tr>
<tr>
<td>10.3</td>
<td>A process analysis of the research group</td>
<td>132</td>
</tr>
<tr>
<td>11.1</td>
<td>Reasons for termination of the group</td>
<td>139</td>
</tr>
<tr>
<td>11.1.1</td>
<td>Planned terminations</td>
<td>140</td>
</tr>
<tr>
<td>11.1.1.1</td>
<td>Achievement of group goals</td>
<td>140</td>
</tr>
<tr>
<td>11.1.1.2</td>
<td>Lack of progress toward goal achievement</td>
<td>140</td>
</tr>
<tr>
<td>11.1.1.3</td>
<td>Predetermined duration of the group by agency policies or objectives</td>
<td>141</td>
</tr>
<tr>
<td>11.1.2</td>
<td>Unplanned termination</td>
<td>141</td>
</tr>
<tr>
<td>11.2</td>
<td>Individual and group reactions to termination</td>
<td>142</td>
</tr>
<tr>
<td>11.3</td>
<td>Worker activities</td>
<td>143</td>
</tr>
<tr>
<td>Chapter 11 - The termination process</td>
<td>Page No.</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>11.3.1 The preparation period</td>
<td>143</td>
<td></td>
</tr>
<tr>
<td>11.3.2 The termination itself</td>
<td>145</td>
<td></td>
</tr>
<tr>
<td>11.3.3 Plans for follow-ups</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>11.4 A process analysis of termination in the research group</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>11.5 Evaluation of practice</td>
<td>153</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 12 - Extragroup intervention</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1 The nature of extragroup intervention</td>
<td>156</td>
</tr>
<tr>
<td>12.2 A process analysis of extragroup intervention relevant to the life of the research group</td>
<td>157</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter 13 - A summary analysis of aspects of the research group</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.1 Selection, membership and attendance</td>
<td>170</td>
</tr>
<tr>
<td>13.2 Group structure</td>
<td>171</td>
</tr>
<tr>
<td>13.2.1 Roles</td>
<td>175</td>
</tr>
<tr>
<td>13.2.2 Leadership</td>
<td>175</td>
</tr>
<tr>
<td>13.2.3 Isolates and scapegoats</td>
<td>176</td>
</tr>
<tr>
<td>13.2.4 Subgroups</td>
<td>179</td>
</tr>
<tr>
<td>13.2.5 Other roles</td>
<td>179</td>
</tr>
<tr>
<td>13.3 Group bond</td>
<td>180</td>
</tr>
<tr>
<td>13.4 Modification of norms</td>
<td>180</td>
</tr>
<tr>
<td>13.5 Worker activities</td>
<td>181</td>
</tr>
<tr>
<td>13.5.1 Direct means of influence</td>
<td>181</td>
</tr>
<tr>
<td>13.5.1.1 The worker as central person</td>
<td>181</td>
</tr>
<tr>
<td>13.5.1.2 The worker as symbol and spokesman</td>
<td>182</td>
</tr>
<tr>
<td>13.5.1.3 The worker as motivator and stimulator</td>
<td>183</td>
</tr>
<tr>
<td>13.5.1.4 The worker as executive</td>
<td>184</td>
</tr>
<tr>
<td>13.5.2 Indirect means of influence</td>
<td>184</td>
</tr>
<tr>
<td>13.5.2.1 Group purpose</td>
<td>184</td>
</tr>
<tr>
<td>13.5.2.2 Selection of members</td>
<td>185</td>
</tr>
<tr>
<td>13.5.2.3 Size of group</td>
<td>185</td>
</tr>
<tr>
<td>13.5.2.4 Group operating and governing procedures</td>
<td>185</td>
</tr>
<tr>
<td>13.5.2.5 Group development</td>
<td>186</td>
</tr>
<tr>
<td>13.6 The token economy</td>
<td>186</td>
</tr>
</tbody>
</table>
Part III: Experimental results

Chapter 14 - Results

14.1 Behaviour change in the group
14.1.1 The token economy
14.1.1.1 Observational phase
14.1.1.2 The baselining phase
14.1.1.3 Token economy phase
14.1.1.4 Problems in scoring
14.1.1.5 Group progress on the token economy
(See Table 6 and Figures 20 and 21)

14.1.2 Behaviour change on an individual level
14.1.2.1 Individual diagnostic/results analysis: Steve
14.1.2.2 Harold
14.1.2.3 Roberto
14.1.2.4 John
14.1.2.5 Edward
14.1.2.6 Ivan
14.1.2.7 Bruce
14.1.2.8 Hector
14.1.2.9 Tony
14.1.2.10 Eugene
14.1.2.11 Charles
14.1.2.12 Geoffrey
14.1.2.13 Mike

14.2 Behaviour change external to the group
14.2.1 The Devereux Elementary School Behaviour Rating Scale
14.2.2 The extragroup token economy
14.3 Academic Performance
14.4 Self-esteem

Part IV: Conclusions and recommendations

Chapter 15 - Conclusions and recommendations

15.1 The deprived child
15.2 Social work intervention and academic performance
15.3 Social work intervention and social behaviour
15.4 The use of social group work
15.5 The use of behaviour modification
15.5.1 Ethical Issues
15.5.2 The token economy 245
15.6 Transfer and stabilisation of learning to the natural environment 246
15.7 Recommendations 248

APPENDICES
Appendix B Correlation of scoring on behavioural schedules by writer and observer using Pearson’s Product Moment Correlation Coefficient 250
Appendix B Coopersmith Self Esteem Inventory 252
Appendix C Devereaux Elementary School Behaviour Rating Scale 254
Appendix D Token economy scoring schedules 258
Appendix E Group questionnaire - session 1 262
Appendix F Letter to school personnel 263
Appendix G Notes on group work program to school personnel 265

Bibliography 276
LIST OF FIGURES

Figure 1  Diagrammatic presentation of the school as a complex organisation  17
Figure 2  Wassenich's (1972) analytical model of the school system  17
Figure 3  A summary of relevant findings from the Theron Commission  22
Figure 4  A diagrammatic summary of subsystems in the school, as described by Wassenich (1972)  34
Figure 5  Sociomatrix of classroom population from which the experimental group was selected  80
Figure 6  Fold out summary of group and worker activities in the origin phase of group life  84
Figure 7  Sociomatrix of experimental group compiled in session 2  96
Figure 8  Fold out summary analysis of group characteristics and worker activities in the formative phase of group life: analysis sheet  100
Figure 9  Comparison of sociomatrices compiled in sessions 2 and 16  113
Figure 10  Group contract  127
Figure 11  Fold out summary of group characteristics and worker activities in intermediate I and revision phases of group life: analysis sheet  128
Figure 12  Fold out summary of group characteristics and worker activities in intermediate phase II of group life: analysis sheet  137
Figure 13  Fold out summary of group characteristics and worker activities in termination phase of group life: analysis sheet  155
Figure 14  Summary of extragroup strategies of intervention at the personal and systems levels as proposed by Glasser et al (1974)  160
Figure 15  Fold out summary of extragroup strategies employed by the worker: analysis sheet  169
Figure 16  Histogram of group attendance over 47 group sessions  172
Figure 17  Comparison of group sociomatrices compiled in sessions 2, 16, 33 and 46  177
Figure 18  Scatter diagram showing number of questions attempted by each individual in the quiz-time period on the token economy, against number of persons in each session  193
Figure 19  Diagram showing computation of estimated maximum number of questions answered (maximum achievement) by an individual in a group session, depending on the number present  195
Figure 20 Graph showing effects of token economy on points achievement during a 50 minute study period, relative to estimated maximum possible achievement in each session

Figure 21 Graph showing effects of token economy on passive (P) and disruptive (D) behaviours during a 50 minute study period

Page No. 198

198
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1</td>
<td>Qualifications of Coloured teachers in South Africa</td>
<td>31</td>
</tr>
<tr>
<td>Table 2</td>
<td>Educational standards in the Coloured population</td>
<td>33</td>
</tr>
<tr>
<td>Table 3</td>
<td>Tabular summary of factors considered in selection of experimental group members</td>
<td>79</td>
</tr>
<tr>
<td>Table 4</td>
<td>Tabular summary of sociomatrices compiled in sessions 2 and 16</td>
<td>112</td>
</tr>
<tr>
<td>Table 5</td>
<td>Tabular summary of attendance of experimental group sessions</td>
<td>171</td>
</tr>
<tr>
<td>Table 6</td>
<td>Task and popular leadership trends in group life drawn from questionnaires completed in sessions 2, 16, 33 and 36</td>
<td>178</td>
</tr>
<tr>
<td>Table 7</td>
<td>Table showing computation of group achievement in each group session on the token economy</td>
<td>196</td>
</tr>
<tr>
<td>Table 8</td>
<td>Table showing computation of individual results on the token economy</td>
<td>199</td>
</tr>
<tr>
<td>Table 9</td>
<td>Table showing results of group work intervention on classroom behaviour as rated by teachers on the Devereaux Elementary School Behaviour Rating Scale</td>
<td>228</td>
</tr>
<tr>
<td>Table 10</td>
<td>Table showing aggregate test marks of individuals in E and C groups both prior to and after social group work intervention, and computation of results by means of the non-parametric Mann-Whitney U Test</td>
<td>229</td>
</tr>
<tr>
<td>Table 11</td>
<td>Table comparing individual performances on class tests before and after social group work intervention, in terms of aggregate marks and rankings relative to other male pupils in the same class</td>
<td>230</td>
</tr>
<tr>
<td>Table 12</td>
<td>Table showing individual self-esteem scores of individuals in E and C groups on the Coopersmith Self Esteem Inventory both prior to and after social group work intervention, and computation of results by means of the non-parametric Mann-Whitney U Test</td>
<td>232</td>
</tr>
<tr>
<td>Table 13</td>
<td>Table showing self-esteem scores on the Coopersmith Self Esteem Inventory both before and after social group work intervention, and a simple comparison of standard scores</td>
<td>233</td>
</tr>
</tbody>
</table>
INTRODUCTION
CHAPTER 1

1.1 Motivation for the study

A broad schools program undertaken by the School of Social Work, University of the Witwatersrand, provided orientation and direction for this study. Permission from authorities in the Administration of Coloured Affairs to work with the participating schools in a service training program was a unique privilege. Every effort was made to work as a team with administrators and teachers.

The motivation for trying to assist pupils in a socioeconomically deprived environment with study behaviours is perhaps best illustrated in the following quotes:

Persons who have developed superior intellectual and vocational capabilities enjoy a wide latitude of occupational choices; they are granted considerable freedom to regulate both their own activities and the behaviour of others; and they have the financial means of obtaining additional privileges that further increase their autonomy. By contrast the high school drop outs who lack sociovocational proficiencies are relegated to a subordinate status, in which not only is their welfare subject to arbitrary external controls, but they are irreversibly channelled into an economic and social life that further restricts their opportunities to use their potentialities and to affect their own life circumstances. Eliminating such behavioural deficits can substantially increase the level of self-determination in diverse areas of social functioning. (Bandura, 1969, p.86)

... most often the disadvantaged child has a background of disorder, lack of logical thinking and a world determined more by emotion than thinking ... (in an increasingly technological environment he) ... cannot be permitted the luxury of failure. (White, 1971, p.186)

The average coloured child in South Africa grows up in a world of racial discrimination, poverty and unequal opportunities. As such his chances of success in school and later life are sharply circumscribed at an early age. The writer was interested in trying to assist such pupils perform better in school.

To critics of the residual approach, and advocates of a more revolutionary social action based model of intervention, the writer quotes Fischer and Gochros (1975) who have asserted that it is often necessary though disagreeable to have to change behaviours to fit in with imperfect systems. 'Social workers operate in systems
neither completely of their own making nor of their own choice; they must help people get the most out of life in an imperfect world.' (Fischer and Gochros, 1975, p.182)

The innovative schools program was designed to enable university students to develop further skills in group work and casework with schools, and to bring a much needed support service into the school. Through his research the writer wanted to provide some insights and a knowledge base on the use of social group work in assisting deprived pupils perform more effectively in the school environment.

1.2 Aims of the study

The present study had three central aims. These were:

(a) to provide a modest survey of relevant literature pertaining to social group work intervention in schools in socioeconomically deprived communities;

(b) to research the effectiveness of the preventive and rehabilitative model of social group work in conjunction with behaviour modification techniques, as a means of assisting deprived pupils with study behaviours. It was hoped that through the use of group processes, such pupils would be able to learn to modify behaviours inhibiting learning, and eventually their classroom behaviours. It was believed that if this occurred, improved academic performance of pupils would result;

(c) to provide a process analysis of the research group as a guideline for future practice and research in the methods of social group work, and behaviour modification.

1.3 Setting

The study took place in Voorwaarts Primary School, Western Township, which lies eight kilometres to the west of Central Johannesburg and is zoned for Coloured occupation only.

It covers an area of approximately 75.7 hectares, with 2,000 dwellings accommodating an officially estimated 12,000 people. Four-fifths of the area is characterised by small two- to three-roomed sub-standard houses averaging 13m² per room. Approximately one-fifth of the people live in the row-houses and flats of the
redeveloped part of the Township called Westbury ... the old area ... is notorious for its underdevelopment, alcoholism, insecurity, poverty, violence and sense of vacuity: it has every appearance of a slum. (Brindley, 1976, p.7)

1.4 Research design

To achieve his aims the writer employed a research design that was both experimental and descriptive in nature.

In an effort to contribute towards the accumulation of 'practice wisdom' called for by Tropp (1976), the writer maintained detailed records of all group sessions, allowing for an analysis of group process and group worker activities in the research group, in terms of Sarri and Galinsky's (1974) conceptual framework of group development. Part II of this presentation, comprising Chapters 6 - 13 is devoted to this aspect of the study.

Secondly, in seeking to achieve the empirical standards of the Michigan School, as 'practitioner researcher', the writer followed an experimental research paradigm in attempting to assess the effectiveness of his intervention. The results of the program in terms of behavioural change in the group and in the classroom, and changes in academic performance and self-esteem of group members appear in Chapter 14 of the study.

1.5 Research hypothesis

The hypothesis of the present study was that intervention in the nature of social group work, coupled with behaviour modification, would enable pupils in a deprived environment to improve their study behaviours, and as a result, their academic performance in school.

1.6 Research Methodology

The writer employed the following sequential steps in carrying out his research.

(a) A survey of relevant literature on such topics as the deprived
child, the Coloured population in South Africa, social group work and behaviour modification in schools, was carried out by the writer as a tuning in/preparatory step prior to social work intervention. Findings from this exercise are presented in Part I of this study (Chapters 1, 2, 3, 4 and 5).

(b) After obtaining permission from the relevant authorities to carry out his research at Voorwaarts Primary School in Western Township, the writer selected eleven male pupils from two standard five classes for an experimental group which was to undergo a program of social group work in conjunction with behaviour modification, to try and improve members' study behaviours. Boys not selected for the group acted as a control group, receiving no social work intervention. The process of member selection for the experimental group is elucidated in Part II, Chapter 7 of the present study.

(c) Prior to social work intervention, all boys in the experimental and control groups were assessed in terms of self-esteem, academic performance and classroom behaviour. The instruments used for this purpose included the Coopersmith Self Esteem Inventory, the Devereaux Elementary School Behaviour Rating Scale and school records. The nature of these tests and measures is expanded on in section 5.5 of this chapter.

(d) The experimental group then underwent a social group work program of intervention planned to assist pupils with their study behaviours. In addition to this the writer tried to use group work skills to assist members in their social interactions and relationships. The preventive and rehabilitative model of social group work was employed for purposes of this study. Forty-seven group sessions took place, members meeting with the writer twice a week over a period of approximately five months. A detailed process analysis of the research group is presented in Part II of this study (Chapters 7 to 13).

(e) Social group work intervention included the use of a token economy which was compiled by the writer on the basis of observations of group members' study behaviours, and designed to improve such efforts. The observational, baselining and application phases of the token economy are described in Part II of this document (Chapters 8 to 11). Analyses of this application appear in Part II, Chapter 13, Part III, Chapter 14, and Part IV, Chapter 15 of the study. Seventeen group sessions were used for purposes of the token economy. An observer was present in
four of these (sessions 24, 26, 30 and 39), his task being to score
group members' behaviour on the relevant schedules independently of
the writer. A correlation of .99 occurred between the writer's and
the observer's scoring on the behavioural schedules (see appendix A).
This served to confirm the utility of the behavioural scoring schedules
as objective tools for purposes of the research study.

(f) Bearing in mind that the school is a social system, and that
pupils operate as part of this system, the writer attempted to extend
his intervention to include teachers. This involved efforts to
educate teachers on alternative methods of classroom control to positive
punishment, and to employ a token economy in this regard with respect
to experimental group members. The worker's efforts in this area ran
both concurrently with the group, and after its termination. Process
analyses, and evaluations of these extra group interventions are
presented in Part II, Chapter 12, Part III, Chapter 14, and Part IV,
Chapter 15 of this study.

(g) After social work intervention members of both experimental and
control groups were re-tested on their self-esteem, classroom behaviours
and academic performance. The same tests and measures used prior to
the program were employed. Results were then compared and statistically
analysed, and details of these are presented in Part III, Chapter 14.

1.7 Research tools

The writer employed the following tests and measures with the experimental
and control groups both prior to and after social group work intervention,
to assess effectiveness of the program:

(a) The Coopersmith Self-Esteem Inventory

This scale measures evaluative attitudes towards the self in academic,
family, personal and social areas of experience. The Self-Esteem
Institute (1974 and 1975) reports the inventory to have been widely used
and to be a reliable and valid measure of self-esteem in children.

Form A of the Coopersmith Self-Esteem Inventory (utilised in this
study) contains 58 items which have to be scored as 'like me' or 'unlike
me' by the subject completing it. Eight of these comprise a lie scale,
the remaining fifty, the self-esteem scale. The total number of correct
responses on the self-esteem scale is multiplied by two so that the
maximum score is 100. (Appendix B)

(b) The Devereaux Elementary School Behaviour Rating Scale

The experience and knowledge of teachers, educational and research psychologists was combined to produce this scale which is designed to provide a reliable means of measuring behaviours interfering with academic achievement. The scale has proved a useful means of identifying and measuring maladaptive classroom behaviours, of recording changes in such behaviour, of communication of specific maladjustments in a child between professional helping or teaching personnel, and of obtaining research data. It does not measure 'personality', but provides a profile of eleven dimensions of overt problem behaviour. The scale is completed by a teacher in respect of individual pupils, based on his personal experience of such individuals in the classroom setting.

The teacher is required to rate pupils in terms of each of the criteria on the scale, using the 'average' child as his guideline for judging behaviour. While the concept of an 'average child' has been criticised, Spivack and Swift (1967) state that teachers do work with some standards in mind when assessing a child's functioning, and that it is this standard which should be used to evaluate whether a behaviour is excessive or extreme. The writer concurs, being of the opinion that a teacher's perception is the framework of 'reality' within which any pupil has to work. As such, an understanding of the teacher's perception of a pupil is as important as any other objective measure of that scholar's behaviour.

On the basis of scores a behavioural profile may be completed in respect of the pupil assessed, indicating particular problem areas in his classroom functioning. This profile contains a 'normative data' area in respect of each item on the profile, within which 68 percent of children tend to be scored. (-1 S.D. to +1 S.D.). Scores outside this area are indicative of an abnormally high amount of a particular behaviour. The Devereaux Elementary School Behaviour Rating Scale (DESB) measures forty-seven behaviours, defining eleven behaviour factors and three additional items. The behaviour factors, and DESB items they contain are listed below.

<table>
<thead>
<tr>
<th>Behaviour Factor</th>
<th>Relevant Items on the DESB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom disturbance</td>
<td>11, 12, 13, 30</td>
</tr>
<tr>
<td>Impatience</td>
<td>1, 36, 44, 47</td>
</tr>
<tr>
<td>Disrespect/defiance</td>
<td>5, 7, 9, 16</td>
</tr>
</tbody>
</table>
Behaviour Factor

4. External blame
5. Achievement anxiety
6. External reliance
7. Comprehension
8. Inattentive/withdrawn
9. Irrelevant responsiveness
10. Creative initiative
11. Need for closeness to teacher
Non-factor additional items

Relevant items on the DESB

2, 25, 34, 38
22, 23, 31, 33
24, 29, 32, 42, 46
10, 35, 37
18, 20, 28, 43
14, 15, 17, 26
3, 4, 6, 21
8, 19, 39, 45
27, 40, 41

Certain clusters of abnormal scores are associated with specific problems in the classroom.

Underachievers tend to score abnormally on factors 8, 2 and 7.

Poor learners may show one of two profiles, scoring abnormally on factors 6, 8 and 7, or factors 1, 2, 4 and 9. In the latter case if scores on factor 3 (disrespect/defiance) are also elevated the pupil probably presents a serious management problem.

Achievement anxiety is often related to abnormal scores on factor 6. (Spivack and Swift, 1967)

In the present study the writer used these scoring patterns to evaluate pupils' behaviour in the classroom both before and after group work intervention. He then compared these scores to evaluate the effectiveness of the program in modifying pupils' behaviour and performance in the classroom. Pertinent results are presented in Table 9, p.228.

(c) Academic performance

Marks obtained by pupils in experimental and control groups both prior to group work intervention (first term test results) and after it (final term test results) were compared to evaluate whether any change had occurred as a result of the program. These results are presented in Table 10, p.229 and Table 11, p.230.

(d) Behavioural schedules and records

For purposes of applying the token economy, the writer compiled behavioural schedules to record individual's study behaviours. During the baselining and token economy phases of the program, each pupil's behaviours during study periods were observed and recorded on these
schedules. Individual and group scores were then computed for reward purposes. In addition both individual and group achievement graphs were compiled on the basis of the schedules, to evaluate any changes in behaviour occurring in the group as a result of the token economy. All relevant graphs appear in Part III, Chapter 14 of the study. The process of compilation and application of the behavioural schedules is described in Part II, Chapters 8 to 13.

1.8 Limitations in research design, methodology and measurement

1. The tests used by the writer, namely the Coopersmith Self-Esteem Inventory and the Devereaux Elementary School Behaviour Rating Scale are not standardised for the Coloured people in South Africa.

2. The writer experienced difficulties in computing his results in that there was no known highest possible achievement for each individual on the token economy, in the time provided and relative to the number in the group in any session. Taking the number variable into account, the writer devised a means of standardising individual and group results on the token economy which is open to criticism. However this appeared to be the only viable method available at the present time.

3. The writer was not an experienced practitioner in the school setting where some knowledge of teaching method and the psychology of education are proposed to be essential for maximally effective practice.

4. Intelligence and personality factors were not sufficiently considered in the selection of members in group formation, in view of points made by Eysenck (1975) which are enlarged on in the Conclusions chapter of this study (Chapter 15).

5. The writer identified several faults with the behavioural schedule used in the token economy, as the study progressed. He thought it better to apply it inflexibly for the purposes of standardising measurement in the program. Thus once he had identified faults in the schedule it was not possible to adjust it as this would have changed the whole impact of the token economy from session to session. Thus for instance the writer became aware that for arriving on time a pupil received one point, while for studying for twenty minutes he also only received one point. At the same time a pupil received a point for every correct answer he made during quiz time and for every round of questions for which he sat quietly. If applied flexibly more points might have been
awarded for prompt arrivals to foster punctuality, and in the writer's opinion more should have been awarded for twenty minutes of study. As it stood, for wanted behaviours in the study period and buzz group period, each pupil could only earn eight points (one sweet), the bulk of points being earned during quiz time. The writer did not consider this to be an equitable balance of points, and if the program had not required standardisation for research purposes the writer would have adjusted the schedule and token economy accordingly.

Owing to time factors and practical considerations the writer did not deem it appropriate to apply the classical ABAB research design, where reinforcement is withdrawn to assess stabilisation in behaviour change before reapplying it to further modification where necessary.

Kazdin (1973) has criticised reinforcement programs such as the one used in this study, as usually involving a number of treatment variables where it is not possible to determine the amount of effect that is attributable to any one of those variables. In a review of his article Wolf (in Kazdin, 1973) differentiates between basic-theoretical research where the goal is to conduct a demonstration experiment that will support a principle, and applied research where the goal is to find ways of modifying specific behaviours. In the latter approach multi-variable 'packages' are usually used to assess whether the whole program has any effect rather than specific variables on specific behaviours. If the program is effective, specific variables' roles can be refined in later research, but frequently these have little major significance for practice or theory. It is only in the laboratory that the luxury of reasonably pure variables exists, and Wolf states that even this may be illusory.

Thus while the token economy used in the present study may be subject to criticism on such grounds, the fact that it was applied in a field research situation and the demands of standardisation for measurement purposes, placed limits on its flexible and specific uses.