THE VALUE OF CREATIVE DRAMA IN THE TREATMENT OF STUTTERING

BY

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DECLARATION

I declare that this is my own, unaided work. It is being submitted for the degree of Doctor of Philosophy at the University of Durban-Westville.

It has not been submitted previously for any degree or for any examination at any other University

TO MY WIFE, MEENA, AND

MY CHILDREN, NIVEDETA (8½ YEARS)

AND SUVIR (6½ YEARS)

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SUMMARY

The research has been based on the hypothesis, 'That creative drama activities such as creative games, improvisational drama, dramatherapy and psychodrama reduce frequency and severity of stuttering.' The test and proof of the hypothesis lies in the interpretation of statistics relative to each of the four sub-problems:

(a) difference in percentage stuttered syllables; (b) average duration of stuttering; (c) duration of the longest moment of stuttering, and, (d) average duration of non-stuttered intervals before and after creative drama activities. These subproblems constitute the main problem : 'Whether or not creative drama activities reduce frequency and severity of stuttering?'

The research involved 35 stutterers in the experimental group and 12 in the control group, both equally matched for identical correspondences. The research was based upon the following paradigm :

$$P \text{ -- } \begin{cases} O_1 \longrightarrow X \longrightarrow O_2 \\ O_3 \longrightarrow - \longrightarrow O_4 \end{cases}$$

'P' represents the population.

The bracketing of both groups indicates that 'P', the population, is common to both groups. The symbol '--' indicates that before separation these two groups "were kept isolated from the influence of the experimental variable X. O_1 and O_2 are the two evaluations of the experimental group, before and after its

exposure to the experimental variable X. O_3 and O_4 are the evaluations of the control group." (Leedy, 1980:170).

Each of three tests was carried out during the following tasks: reading, conversation and monologue, and was analysed on 9 - point scales. These scales evaluated : % stuttered syllables, average duration of stutterings, duration of the three longest stutterings, overall speaking rate, articulatory rate, duration of the three longest non-stuttered intervals, average length of non-stuttered intervals, length of the three longest non-stuttered intervals and severity rating. These analyses were extensive, in order to present a balanced view of pupils' individual progress and that of the group.

Group data indicate that the percentage stuttering for reading in the experimental group decreased by a mean of 10,5%, while the corresponding control group tests revealed an increase of 0,1%. The experimental group had an overall mean increase of 12,1% in all three tests. The control group's corresponding score was a decrease of 0,3%.

Statistics have proved that the experimental group reduced its % stuttering by 12,1% (The First Subproblem) and its average duration of stuttering by 1,1 seconds; while the control group increased its average duration by 1,2 seconds (The Second Subproblem).The experimental group reduced its longest moment of stuttering by 2,9 seconds (The Third Subproblem), and increased its

average duration of non-stuttered syllables by 14,7 seconds (The Fourth Subproblem). The corresponding figures for the control group in respect of the third and fourth subproblems, were an increase of 1,2 seconds and 0,2 seconds respectively.

The statistical results of this research are examined in the light of various theories in the fields of creative drama and stuttering, covering areas of concern such as : the value of creative drama in developing communication skills, and its role in assisting persons with communication disorders, the nature, onset and development of stuttering; theories on etiology, treatment and controversies in stuttering therapy. Thereafter, attempts have been made to establish a theoretical conceptual relationship between the two fields. No claim is made for the 'therapeutic' value of creative drama in stuttering, for creative drama activities were merely conducted with stutterers and speech fluency was measured. Aspects such as transfer and maintenance were not considered and these should form the basis for further research in this field.

As an experimental research project, the principles of the scientific method were rigidly adhered to. Having satisfied the aims of the study, the conclusion arrived at is, that creative drama activities reduce stuttering frequency and severity.

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

The basic elements of drama : feelings, desires, conflicts and reconciliations, are the major ingredients of human experience. In everyday, real-life, these emotional experiences often seem to be a jumble of unrelated and disjointed impressions. However, the playwright, through drama, can organize these experiences into understandable patterns.

The exact origin of formal drama lies hidden in human ritual, and all civilisations produced some from of drama, either in ancient religious ceremonies or rituals, imitation and impersonation, mime, dance or choral hymns, and so on.

Definition of terms is always a necessity, but with a term such as 'drama', it becomes an essential starting point, given that the concept, 'drama' is often confused and misinterpreted, as pointed out by Horne (1979:1-2):

> "The long and bitter struggle for Speech and Drama as a school subject arose from the misconception in the minds of the public concerning the word 'drama'. In certain circles, there is even a stigma attached to this word, since to many, it means simply 'entertainment', 'pastime', 'play'."

'Drama' has been defined in various ways.

> "Aristotle considers that he is 'going back to first principles'. He points out that the term drama is given to works because they represent men doing things. The word 'drama' literally means 'a thing done'. Important in our investigation is his emphasis upon imitation in dramatic art. For Aristotle, imitation is no slavish copying: it is out of imitation that man gains insight and eventually recreates and expresses artistically." (Hodgson, 1972:56).

Hodgson says that interpretation of Aristotle's meaning will no doubt go on for a long time yet, but his examination of drama, its nature, form and function, remains basic.

Nixon (1982 : 14) says that drama can be defined in terms of four components: social interaction, content, forms of expression and use of the media - the 'language' of drama.

Creative drama emerges from the broader concept, 'drama', and encompasses : imagination, stimulation, spontaneity, trust, socialization, confidence-levels, self-image and personal and inter-personal interaction. It is improvised and touches upon the creative potential of the participant.

The Children's Theatre Association of America defines creative drama as :

> "an improvisational, non-exhibitional, process-centered form of drama in which participants are guided by a leader to imagine, enact, and reflect upon human experience ... The creative drama process is dynamic . The leader guides the group to explore, develop, express and communicate ideas, concepts, and feelings through dramatic enactment. In creative drama the group improvises action and dialogue appropriate to the content it is exploring, using elements of drama to give form and meaning to the experience." (Heining and Stillwell, 1981 : 4).

The theme that emerges from the above, is that improvisational or creative drama is a means of expression or communication.

Before delving into the value of creative drama in communication, it is necessary to elaborate on 'communication' itself. Cherry (1971 : 3-9) defines communication as :

> "A social affair... Human language is not to be equated with the sign systems of animals... he can with his remarkable facilities of speech give utterance to almost any thought,

> though like animals, we too have our inborn instinctive cries of alarm, pain, etcetera.."

He suggests that organized thought has resulted through self-awareness and the sense of social responsibility, and that language development is the product of thought. It is therefore evident that in order to live and function as a social creature, man has to become self-conscious and act according to a system of ethics and laws devised by the society or community. Social interaction, or communication is therefore inevitable.

There are different systems of communication, but for the purpose of this study, attention will be focused on verbal communication.

> "Human society relies heavily on the free and easy interchange of ideas among its members, and, for one reason or another, man has found speech to be his most convenient form of communication." (Denes and Pinson, 1973 : 3).

According to the above authors, we do not know of any civilization where speech was not a coherent part of communication (Denes and Pinson, 1973 : 2). It is noteworthy that speech and language have developed into highly efficient systems for the exchange of our most complex ideas, even under constant changes, and they are therefore unifying forces, as is evident in:

> "Speech is suitable because it remains functionally unaffected by the many different voices, speaking habits, dialects and accents of millions who use a common language." (Denes and Pinson, 1973:3).

Thus far, human communication has been mentioned, and the importance of speech or the verbal aspect of communication has been stressed. An inherent part of human communication is language, defined by Bolinger and Sears (1981:2) as:

> "... a system of vocal-auditory communication, interacting with the experiences of its users, employing conventional signs composed of arbitrary patterned sound units and assembled according to set rules."

Speech and language are therefore the cornerstones of verbal communication, which have the power to unite man through social contact.

For communication to be effective, it is imperative that speech is fluent, articulate and understandable. However, the human being is handicapped by communication disorders, such as stuttering, language disorders, phonological disorders, aphasia, cleft palate and apraxia, to mention but a few.Stuttering is a complex and puzzling disorder, about which there is a great degree of controversy with regard to etiology and therapy or

treatment. This will be discussed in greater detail in chapter 3.

Within the framework of this thesis, the questions that are pertinent at this point are : 'Can creative drama reduce frequency and severity of stuttering?' and 'What are the unique feature of creative drama that could account for reduction of stuttering?' The first question forms the basis of the main problem, and this is examined, together with the subproblems and the hypothesis, in chapter 4. The second question cannot satisfactorily be addressed before the conceptual relationship between creative drama and stuttering is defined. Chapter 3 attempts to survey the related literature between features of creative drama and stuttering. This research is designed to gather empirical data to prove whether creative drama can contribute towards the reduction of the overt characteristics of stuttering.

1.2 BACKGROUND

1.2.1 MOTIVATION/RATIONALE

The researcher was a stutterer up to the age of twelve. This informed his modest experiments with stutterers, in which two pilot studies were conducted, during 1980 and 1988, involving twelve stutterers each, from Stanger and Verulam respectively. The results of these pilot studies suggested that creative drama had the potential to alleviate stuttering. In the absence of remedial pro-

grammes from school authorities (a situation which still exists), the researcher's interest grew. This was reinforced by the researcher's observations of 3 stutterers who were part of his drama lessons at the M.L. Sultan Technikon, and 2 who were in the Speech and Drama class at the Mountview Secondary School in Verulam. There seemed to be a strong relationship between these lessons and the pupils' improved speech. The spirit of scientific enquiry was set in motion. A survey (discussed in chapter 4) revealed that there were 275 confirmed stutterers in primary and secondary schools in Verulam, Phoenix and Tongaat during 1990.

Having realized the inherent potential of creative drama, two computer searches were conducted through the Data Base Centre of the University of Natal (Durban), to ascertain whether creative drama had been used in stuttering There was no recorded evidence. Thus, the research was initiated.

1.2.2 DEFINITION OF TERMS

1.2.2.1 Creative drama : The definition used in this dissertation is that of Heining and Stillwell as quoted in 1.1.

1.2.2.2 Stuttering : Wingate defines stuttering as :

> "(a) Disruption in the fluency of verbal expression, which is (b) characterized by involuntary, audible or silent repetitions, or prolongations in the utterance of short speech

elements, namely : sound, syllables and words of one syllable. These disruptions (c) usually occur, frequently or are marked in character; and (d) are not readily controllable." (Ingham, 1984 : 16-17).

1.2.3 FORMAT OF THE THESIS

Thus far an introductory perspective has been presented, and the value of speech in communication was mentioned. Chapters 2 and 3 survey the relevant literature on creative drama and stuttering. Attempts are made at interpreting, evaluating and establishing a theoretical framework or conceptual link between the two disciplines. The general methodology and procedure constitute the fourth chapter, in which the main problem, subproblems and hypothesis are also outlined. In addition, details pertaining to the experimental and control groups, apparatus and equipment, research design, data collection procedures, and data interpretation procedures are outlined. The results are presented in chapter 5. Data in respect of subproblems and the main problem are presented, followed by group data and statistical analysis. The results are discussed in chapter 6. Attempts are made to provide an interpretation of the statistical data, considering the theoretical framework of the research. Concluding remarks, suggestions and evaluations constitute the seventh and final chapter.

CHAPTER 2

LITERATURE SURVEY : CREATIVE DRAMA

INTRODUCTION

The aim of the literature survey, is to provide relevant information central to the relationship between creative drama and stuttering. In view of the complexity of stuttering, and the unique conceptual relationship between creative drama and stuttering, the literature survey has been divided into two chapters: chapter 2 focusing on drama, and chapter 3, focusing on stuttering, and its relationship to drama.

This chapter covers a brief overview of creative drama, its value in the development of communication ability, and its role in assisting those with communication disorders.

2.1 CREATIVE DRAMA

The definition of creative drama was provided at the beginning of the first chapter. However, the definition provided by Heining and Stillwell (1981:4) requires critical discussion.

While the views of the above authors are perfectly acceptable, the following concepts, as used by the authors need explanation : 'human experience', the 'dynamic' potential of creative drama and 'dramatic content'. 'Human experience', depends on perception, response, imagination, creativity, communication and evaluation. Each of these attributes formed an integral

part of the creative drama sessions of this study, and is discussed in chapter 4. The 'dynamic' potential of creative drama lies in its ability to relax, develop trust in oneself and others, enhance concentration, emotional stability and bodily co-ordination, and promote self-awareness. 'Dramatic content' refers to issues such as the social, cultural, moral, ethical and the interpersonal, based on themes from life.

Further evaluation of Heining and Stillwell's (1981) views on the essential elements of creative drama, reveals their strong reliance on the leader as initiator of creativity. However, the researcher is of the opinion that creative drama is 'instinctual' because children or participants should be able to work from their own constructs of reality. Leaders should therefore limit their roles to that of 'initiators' or 'facilitators', rather than as 'guides'. This approach would be more acceptable, given that the 'creative drama process is dynamic'. (Heining and Stillwell, 1981:4). In order for drama to be creative, involvement must be spontaneous and simultaneous. This does not imply that 'Teacher in Role' (Heathcote, 1984) techniques are discouraged. This technique is acceptable under specific circumstances, depending on the aim and significance of the activity.

2.1.1 THE VALUE OF CREATIVE DRAMA IN DEVELOPING COMMUNICATION ABILITY

It is generally agreed that effective verbal or non-verbal human communication will not be possible without thought (the imagination), stimulation, spontaneity, relaxation, confidence, trust and a positive self-image. In addition, communication requires use of language and speech, movement and the ability to socialize.

Each of these facets of creative drama will be evaluated, so as to present a reasonably comprehensive overview of creative drama in developing communication ability in general, and in alleviating stuttering in particular. In the next chapter the theoretical relationship between creative drama and stuttering is explored. The value of drama in speech communication has been emphasized by, amongst others, Alington (1961), Cherry (1971) and Chick (1983). Evans (1984), in addition to emphasizing the value of drama in developing communication skills, has focused on drama in English teaching.

2.1.1.1 IMAGINATION

Drama fosters imagination so that the pupil is able to visualize characters, situations and experiences. This dynamic facet of creative drama gives clarity to thought, depth and a freshness to ideas. This view is supported by Slade :

> "Absorption in the task is what is needed for all learning; and sincerity of doing can become a permanent part of the personality, developing such things as honesty of attitude, integrity and true feelings. For those reasons alone apart from artistic achievement, I would feel that imagination being such a strong element in human nature can be of considerable importance. It should be fostered, encouraged, guided and developed, other than feared, avoided or positively denounced." (1968 : 93).

Imagination, in the above context, should not be limited to 'fantasy thinking', as Lowe describes it in, The Growth of Personality : from Infancy to Old Age (1972). Rather, imagination should also be reality-bound, and a process of combining memories of past experiences and previously formed images, with projected ideas, to form novel contributions or constructions. It is obvious that the lack of imagination will lead to stilted behaviour, and this can stifle overall personality development. The researcher's experiences as a teacher of Drama and English bear testimony to this. This view is also supported by Jennings :

> "The creativity and imagination of the young child are usually referred to as play. Psychologists and educationalists alike have long realized the importance of play for the developing child. The child who is prevented from play will be impoverished mentally, emotionally and physically. A boy referred to me as severely subnormal was prevented from playing at home; he was restricted to a spotless white hallway, with balloons and a teddy-bear for his only toys. He was not allowed to feed himself and was force-fed on liquids. When the child was later abandoned and taken into a foster home with plenty of play stimulus, his development was found to be normal." (1973 : 3)

The above discussion implies that play or creative drama develops flexibility of thought and is a safe medium for mental, social, emotional and physical growth. Creative drama also develops flexibility of thought. Successful stimulation can enable a participant to translate one's real world into a world of personalities. Imagination often transcends one's personal boundaries or limitations.

Slade's observation that lack of imagination can stifle personality growth, and Jennings's views on physical and

mental conditioning have a degree of concurrence and complement each other. Their views are also consistent with the characteristics of the disturbed or maladjusted.

Dramatic expression is inherent in children, and is translated into their own natural play through meaningful creative drama. Leading theorists such as Brian Way (1967) and Peter Slade (1968) are of the opinion that effective stimulation in the session paves the way for transfer of acquired personal resources such as confidence, trust, interest, concentration, relaxation and imagination into the new environment. The role of the leader is therefore important, not as 'teacher' but as a guide, supervisor and initiator of experience. In this regard, the differing views of Holmes and Cook may be mentioned :

> "The teacher must therefore content himself with the child's expansive instincts, fair play and free play." (Holmes, 1911:163).

> "The question of how to persuade a boy to feel responsibility for his own learning, and to realise that nothing can be taught him which he does not cause himself to learn, is perhaps the most difficult problem a teacher has to face." (Cook, 1917:73).

It is evident from the above divergent views that Holmes is concerned with the creation of a proper environment for natural growth and free play, while Cook stresses insight and problem solving. While they may have essential differences, both views may be successfully integrated for overall growth and emotional maturity, thus enhancing communication ability.

Hodgson and Banham (1973), Holbrook (1965) and England (1981), amongst other theorists, emphasize the importance of stimulation in dramatic activities.

2.1.1.2 STIMULATION

Stimulation may be defined as 'the act of rousing or inspiring mental or physical action', while dramatic stimulation is 'the act of mental or physical action, initiated by dramatic activities'. O'Neill et al (1986:12) say that 'stimulation decides the level of commitment of those involved'.

Slade's innovatory work from the 1940's till the 1960's focused on the relationship between play and drama. He states that drama is 'born of play'. (1954:19) Play therefore acts as stimulation for drama. He emphasizes that 'wherever there is play there is drama, drama of a kind which is not always recognizable to the adult.' (1954:23).

It is therefore justifiable to claim that Slade's concept of drama as 'an Art Form in its own right' (1954 : 7), depends on play - the stimulus. He was interested in stimulating dramatic activity that exhibited naturalness, spontaneity and sincerity. In so doing, Slade avoided the imposition of an adult's acting style which destroys the spontaneity and naturalness in child-acting or drama.

Like Slade, Caldwell Cook felt that play was a 'natural means of study in youth', and that 'a natural education is by practise, by doing things, and not by instruction.' (Cook, 1972 : 145). It may therefore be said that stimulation is important in arriving at dramatic activity which is characterized by absorption and sincerity - the elements required for learning. Slade defines absorption and sincerity as :

> "Absorption - being completely wrapped up in what is being done or what one is doing, to the exclusion of all other thoughts including the awareness of or desire of an audience. A strong form of concentration.
>
> Sincerity - a complete form of honesty in portraying a part, bringing with it an intense feeling of reality and experience, generally brought about by the complete absence of stage tricks, or at least of discernible tricks, and

only fully achieved in the process of acting with absorption." (1954 : 12-14)

2.1.1.3 SPONTANEITY

Spontaneous action is the foundation of creative drama. When creative drama is spontaneous, what is achieved, according to Corsini (1966), is 'simultaneity', when, 'thinking, feeling and acting ' occur simultaneously, and are 'heightened - exaggerated and forced to fuller limits.' (1966 : 13). An analysis of this view would imply that engaging the whole person in the creative dramatic act is unavoidable and also imperative. There is no place for a division between mind and body in such activity. This view is agreed upon by (Gelb, 1981 : 36), and is also evident in Way's concept of 'characterization', Slade's 'absorption' and Heathcote's 'gut-level' drama.

It would therefore appear that trust and commitment are necessary for total immersion and spontaneity, in an unpredictable situation. Trust and commitment, however, are not achieved artificially, but are dependent on:

> "..... students' personal and collective power in the situation, and consciousness of the choices implicit in the process. This will in turn determine the depth of spontaneity in the drama." (Nebe, 1991 : 132).

Critical analysis of the views of the above-mentioned writer, indicates that 'personal' and 'collective power' cannot be realized at all ages. Children who are too young, or children with severe handicaps may not be able to exhibit personal or collective power. The leader or facilitator is an important stimulus in moving towards any type of goal if it can be predicted at all.

Spontaneity taps the individual's mental, physical, creative and intuitive faculties and is based, to a large extent on trust and commitment on the part of the participants. Such commitment is achieved when there is self-penetration leading to self-identification. This view is supported by the psychodramatist, J.L. Moreno (in Hodgson, 1972 : 138):

> "When the stage actor finds himself without a role conserve; the religious actor without a ritual conserve, they have to 'ad lib', to turn to experiences which are not performed and ready-made, but are still buried within them in an unformed stage. In order to mobilize and shape them, they need a transformer and catalyst, a kind of intelligence which operates here and now, 'hic et nunc', 'spontaneity'."

Moreno's views on spontaneity focus on the 'mental' and 'physical' levels. He says that in order for mental healing processes to be effective, spontaneity is required. This view is significant, for spontaneity forges a direct link with creativity - the highest form of intelligence we are aware of. This is explained further by Moreno:

> "The dynamic role which spontaneity plays in psychodrama as well as in every form of psychotherapy should imply, however, that the development and presence of spontaneity in itself is the 'cure'. There are forms of pathological spontaneity which distort perceptions, dissociate the enactment of roles and interfere with the interaction on the various levels of living." (Hodgson, 1972 : 138).

2.1.1.4 TRUST

Nebe (1991 : 141) defines trust as:

> "an act of confident expectation placed in another person and suggests that there is a reliance on the truth of statements and actions made by such a person. It is both an individual and social act : each individual needs to go through the process of putting their trust in the act of drama and in their fellow participants, and such action is beneficial to the growth of the individual, to the

group dynamic, to the level of creativity, and ultimately to the learning that may take place."

The above views are also supported by Siks (1977) and Shirley (1984). The child's ego also plays an important part in developing self-pride in relation to others. The developing child who encounters conflicts, frustration and problems, finds relief from stress in creative drama, which facilitates solutions, thus brining about harmony between inner needs and outer reality. The development of trust through creative drama is also emphasized by Gerard Gould (1975 : XIII):

> "Drama is valuable in helping young people to face the demands of life, to develop friendship and trust with adults."

The need for trust in a learning situation is vital, for the facilitator has to create a sense of security, feeling of importance, acceptance, warmth and friendship.

2.1.1.5 DOROTHY HEATHCOTE'S VIEWS ON DRAMA AS SOCIALIZATION

Heathcote's views on drama may be summed-up as:

> "...a means for learning and contextualising normal school tasks, by focusing on the literary value of drama, its dramatic content, its

linguistic potential, the value of knowledge and constant reflection of the world we live in.

She focuses on the 'politics of social living' and 'community sense', thus emphasizing the value of drama as a social tool." (Davis, 1985b : 73).

Heathcote emphasizes the need for 'bonding' in the form of schooling we have, and the need for social development. She writes :

> "..... I think bonding is a much more important thing to pay attention to ... my big concern is to protect them into a sense of social considerations." (Heathcote, 1984 : 73).
>
> "Dramatic work is first of all a social art, in which the interaction of people comes under scrutiny in a specific encounter or matter of concern in which they are trapped. It spans all time, race, social strata, faiths, behaviours and feelings. Thus it is a mirror of society." (Heathcote 1984 : 196).

The concept of drama as a socializing factor cannot be over-emphasized, particularly in the context of this study. This is borne out by the fact that the stutterers' speech impediment prevents easy social interaction. Heathcote's concepts acted therefore as models for many

of the activities which stutterers participated in. With regard to social relationships between mentally retarded pupils, McClintock (1984 : 40) states:

> "Some children may be aggressive, passive or withdrawn. It is not clear in any one case how many of these behavioural difficulties are the result of the child's handicap, and how many are due to secondary difficulties arising out of communication problems or experiences children may have had of being laughed at, misunderstood or rejected by other children or adults. Whatever the cause, these problems can be difficult to deal with. Children who are very seriously disturbed will need specialized help."

McClintock has worked with mentally handicapped children, using creative drama to improve their communication and social skills. Her accounts of the experiences and behaviour characteristics of her subjects, closely resemble those of a stutterer. Her extensive use of creative drama incorporated : activities designed to create an awareness of body, senses, and sound; mime, movement and speech; guided dramatisation; three-graded themes, playmaking and performance. While her novel approaches have merit, and are specifically designed for mentally handicapped children, her approaches differ to some extent from the type of creative dramatic activi-

ties designed for stutterers in this study. These differences are : (a) McClintock's activities are directly related to improvement of speech and language skills, using rhymes, games to improve articulation, speech games, speech play and the use of scripted drama, while creative drama activities focus on strengthening personal resources, which will promote self-image, and (b) her activities border on 'performance', whereas creative dramatic activities in stuttering centre around the formative and experiential values attached to the activity.

It therefore occurs that Heathcote's views on socialization have a direct bearing on this study. Her broader definition of educational drama is,

> "... either to understand a social situation more thoroughly or to experience imaginatively via identification in social situations." (1984 : 49)

With regard to the 'particular to the universal', Heathcote says that the general area of concern is narrowed down, and then,

> "if the experience is to be related to the person's own experience, it is universalized to draw in the unique experience of the group at work on the idea. This dropping, of the

particular into the universal is the digestion process of the arts, which creates the opportunity for reflection, which is what education is all about." (1984 : 35)

Analysed further, moving from the 'particular to the universal' is in fact, the aim of teaching and learning, irrespective of the nature of the subject.

Wagner quotes Heathcote in Drama as a Learning Medium :

> "Classroom drama uses the elements of the art of theatre ... The difference between theatre and the classroom drama is that in theatre everything is contrived so that the audience gets the kicks. In the classroom, the participants get the kicks. However, the tools are the same; the elements of theatre craft."(Wagner, 1977 : 147).

It is necessary, at this stage to outline Heathcote's main teaching techniques, namely, 'Teacher in Role', the use of 'Registers', and 'The Mantle of the Expert'.

TEACHER IN ROLE: the leader/facilitator or teacher assumes a role to reach a desired goal. This removes the barrier between teacher and student. However, the following rules need to be adhered to. The teacher should :

1. not hold 'onto a role any longer than is necessary

to get the emotional energy of the group going';

2. use a role to impart 'information nonverbally ... to usually say very little, giving each word weight and importance';
3. 'use the authority of the role to keep the whole group functioning as one', and
4. use a role as a' way to get the group to explain what they are about.' (Heathcote in Wagner, 1976 : 131-132).

TEACHER'S USE OF 'REGISTERS'

Heathcote's definition of 'register' differs from its linguistic definition, in that she refers to it in terms of 'attitudes' employed in teaching. Her operational definition of 'register is :

> "...the attitude implied in the way the teacher relates to his class. The attitude can be exhibited whether or not the teacher is in role as a character in the drama and, if in role, in dialect, tone, or social variation in language appropriate to the dramatic situation." (Heathcote in Wagner, 1976 : 38).

It would therefore imply that the teacher must adopt the correct register at any one stage, and that changing registers may elicit an unexpected response, for which the teacher should be prepared. The status or role of the teacher ought not to be jeopardized, for this may

have detrimental effects. The teacher should guard against such a situation. In this regard, Wagner (1976: 41) writes :

> "...if you let things happen in the classroom that cross your status threshold, you are in the worst position possible - for you and the class."

The teacher has therefore to mould the learning environment, to elicit appropriate pupil behaviour and response.

THE MANTLE OF THE EXPERT

Morgan and Saxton (1987) describe Heathcote's 'Mantle of the Expert' as,

> "The students, though still themselves, are required to look at the situation through special eyes. The work here is about a task oriented situation, where the job in hand must be done first. So doing the job is the vehicle that starts the creative ideas flowing." (1987 : 118-119).

According to the above authors, students/pupils in this model do not have to be experts, but the task that is to be done must be done seriously and responsibly as any professional would. This model, no doubt will boost the pupil's self-concept, self-image and feelings of pride

in heightened status as an expert. Moreno (1984) calls this the 'ego-boost'.

Heathcote (1984 : 192) describes 'Mantle of the Expert' in the following way:

> "... a person will wear the mantle of their responsibility so that all may see it and recognize it, and learn the skills which make it possible for them to be given the gift label 'expert'. It enables one to create context for school work. The gift of drama is that it makes micro-societies and micro-skills, and micro-behaviour and endeavours available to the teacher."

Endeavours have been made to use this concept or model with stutterers, because of its pedagogic value, and its psychotherapeutic significance.

2.1.1.6 SELF-IMAGE AND CONFIDENCE

As it will be argued in chapter 3 that confidence and an appropriate personal self-image are essential for fluency amongst stutterers, it is necessary to highlight the implications at this stage.

Nebe (1991 : 35-36) says that play has implications for self-realization which inevitably leads to a new self-image, based on the principle of renewed confidence. He cites Freud, whose later work acknowledges the fact that children play-out traumatic or disturbing experiences,

and that he (Freud) observed that children expended a great amount of emotion during play, in order to re-establish their equilibrium.

The views of Piaget (1951) and Erickson (1963) also have relevance to the fields of confidence and self-image. The former author says that equilibrium is regained by engaging in symbolic play which serves to assimilate and consolidate experiences which are disturbing to the child. Erickson asserts that symbolic play enables the child to overcome defeat and frustrations.

Unrealized impulses towards expression remain forever as an inner drive, seeking outlet. Creative, symbolic play provides this emotional release. One develops a critical sense of self-awareness, and becomes sensitive towards others and one's environment. Encouragement, praise, meaningful criticism which is unbiased, freedom of expression, acknowledgement of others' views, acceptance of personal limitations and mutual trust lead to mental and emotional stability in the creative drama situation.

The value of play as therapy is evident in the innovative work of Axline (1969) who focused on emotional development. Axline writes that tension, frustration, insecurity, aggression, fear, bewilderment and confusion are played out in play, which is the natural medium of expression. This is done by bringing these feelings

into the open, challenging them, and learning to control or abandon them. Axline (1969:16) writes :

> "...When he has achieved emotional relaxation, he begins to realize the power within himself to be an individual in his own right, to think for himself, to make his own decisions, to become psychologically more mature and by so doing, to realize self-hood."

No doubt, Axline touches on a very crucial area of this study, that is the realization of 'self-hood', for the participant in the creative drama sessions went through a developmental process leading to a realization of negative factors. Thereafter the aim was to work towards the establishment of self-esteem or ego. It may be said that when creative drama performs this function, it then borders on the psychodramatic level, which forms the focus of attention of the last section of this survey.

Feldenkrais (1972:10) says that each of us speaks, moves, thinks, and feels in a different way, according to one's image of oneself, built up over the years. In order to change one's mode of action, it is necessary to change the inner image. Motivation plays a role in such a process.

Critical analysis of Feldenkrais's views reveals that because of limitations of speech, the stutterer too has acquired a partial self-image as a result of the defect.

Creative drama would therefore be a medium through which this inner image can be transformed. This is not a miraculous process, for self-image is composed of movement, thought, feeling and sensation. (Feldenkrais, 1972: 10). These are inter-related and are present to some extent in any action. Speech would therefore reflect such a process. This would imply that movement, sensation, feeling and thought are operative factors in such an act, and would therefore affect the content of speech, and the act of speech.

2.1.2 THE VALUE OF CREATIVE DRAMA IN ASSISTING PERSONS WITH COMMUNICATION DISORDERS :

In using creative drama with persons who have communication disorders, the important factors to be considered are : environment, ability to participate in exercises or games, and one's mental and physical condition. This may be substantiated by referring to research by S.K. Shirley (1984) involving neurologically impaired children. In her final analysis, she states that the innate intellectual capacity of the neurologically affected child will not increase. Drama can however offer the child more self-confidence and independence to face different communication situations.

Ann B. McClintock in her book, Drama for Mentally Handicapped Children (1987), focuses on her research and provides guidelines for parents, teachers and counsellors. She suggests activities from pre-drama and early dramatic play, to mime, movement and dramatisation, individually or in groups. At a more advanced level, role-play and performance may be initiated.

Dramatherapy, or remedial drama does not differ in content or techniques from other types of drama. The difference lies in selecting and applying appropriate drama techniques to remedial work. There is little recorded information on the subject except for the research by Sue Jennings (1987 : 117), who is also regarded as the pioneer of remedial drama.

The views of Davies are recorded in Dramatherapy-Theory and Practice for Teachers and Clinicians by S. Jennings (1987). A summary of these views indicates that dramatherapy was used in Britain as early as the 1960's, in the educational and health professions,

> "... in which games, exercises to increase body awareness and non-verbal communication, masks, puppets, creative fantasy-work, dance, music, painting, story-telling, mime and role playing all came to be included in the repertoire of remedial drama." (1987 : 117).

If games, body awareness exercises, role-playing, creative work and exercises involving masks and puppets form an integral part of remedial drama, then one could fairly conclude that the whole spectrum of creative dramatics would have therapeutic value as well. This is quite true, for creative drama develops either the mental or physical faculties progressively. As such, the therapeutic value of drama cannot be ignored. The objective of remedial drama or dramatherapy, is to achieve a degree of normalization through corrective treatment of a specific problem.

In the ensuing discussion, attempts will be made to determine the value of dramatherapy in : psychomotor development; work with immigrants, neurlogically impaired, severely subnormal and multiply handicapped children, the backward child and the physically handicapped. An appraisal of the existing theories of drama therapists will be made, as far as is practically possible, considering the fact that there are neither many drama-therapists, nor a substantial record of information to go on.

2.1.2.1. PSYCHOMOTOR DEVELOPMENT THROUGH DRAMA

In dramatic play the child is guided to explore physical resources for expression through body movement, which fosters psychomotor development. It is imperative for children to learn how to use and control their physical

selves to enable them to use body movements with expression, so that their impulses and imagination are given form and meaning. Drama gives children the experience to gain an ever-increasing knowledge of 'what' their bodies can do, 'where' and 'how' their bodies can move in and through space, and 'how' their bodies can move in relation to others. Dramatic activities, movement and awareness of one's body and bodily actions are fostered through meaningful activities. Drama provides learning experiences, each structured to guide children to explore different movement concepts. Locomotor movements of running or jumping, non-locomotor movements of swinging or bouncing, factors of body shape and size with an extension of body parts, use of gesture, movement relationships in groups and relationship to one's own kinesphere are some of the facets of dramatic activities that foster psychomotor development.

2.1.2.2 DRAMA WITH IMMIGRANTS

Jennings (1973) says that drama can be effectively used to look at racial prejudice both in school and in society as a whole. This can be achieved if social problems such as prejudice between the different groups can be externalized. Drama can also help in language development. She says,

> "Additionally, immigrant children have to cope with conflicts between home and school norms of, for example, eating, dress, manners or

discipline. Many children find difficulty in playing this dualistic role. Again the drama situation can help by allowing the immigrant's culture to come into school - accounts of life in their own countries, performance of songs and dance will give newcomers a sense of pride in their own heritage, and may help to change the attitudes of their English classmates." (Jennings, 1973 : 28).

2.1.2.3 DRAMA WITH THE NEUROLOGICALLY IMPAIRED, SEVERELY SUB-NORMAL AND MULTIPLY HANDICAPPED CHILD

Shirley (1984) in her Master of Arts Dissertation entitled, Practical Drama work with Neurologically Impaired Children in Selected Training Centres in the City of Pietermaritzburg, found that drama has the potential for social integration. She cites the following incidents which suggest that mentally retarded children do, and can engage in dramatic play :

"Two of the profoundly mentally retarded children, aged twelve years and ten years respectively, were observed at play in their home environment. In both cases the parent asserted that the retardate played, 'just like the other children'. In the first instance, the boy, the middle one of three brothers, ran about with his siblings shouting and laughing. His brothers had initiated

> some form of 'cops and robbers' game and constantly shouted instructions to the retarded child. He was told when to run, to shoot, or to lie down dead. Usually he obeyed these instructions, but if he failed to do so he was pushed into place. Discussing the game with him afterwards was difficult because of his poor verbalisation, but he appeared to have no idea of the dramatic element of the game although he had derived considerable enjoyment from the activity and the noise. He was also delighted by the fact that he had been allowed to join in. He was frequently excluded when his brothers played with their friends and on occasion, parental persuasion was brought to bear before he was allowed to join the games." (1984 : 10).

While the retarded child can take on minor roles, the inability to express oneself verbally, impedes logical sequence, coherence and structure in play. The child therefore needs constant supervision by adults, mature siblings or friends.

An important consideration in working with neurologically impaired children, is the level of competence of the leader or tutor.

Shirley (1984) suggests one of Dorothy Heathcote's methods, that is, the person who is institutionalised should be placed in the role of trying to help someone more vulnerable than oneself. However, this technique will depend on the handicapped person's level of severity, communicative ability, personal management and intellectual development. Shirley observed that an IQ level of at least 35 is required for effective sociodramatic play. Pupils of such intelligence levels showed their feelings by laughing or crying if they were unable to verbalise.

2.1.2.4. DRAMA WITH MENTALLY HANDICAPPED CHILDREN

The chief exponent of drama with mentally handicapped children is Ann McClintock (1984). She says that mentally handicapped children do not play spontaneously and therefore need the help of an adult.

In the case of severely handicapped children, she recommends pre-drama activities. These may include exploration of environment, manipulating toys or other objects, responding to one's name, identifying objects and people and performing other locomotor activities. Gradually, pupils will begin to participate in activities on a one-to-one basis with an adult, and engage in games of make-believe. Thereafter group work will be possible. McClintock has described detailed lesson plans which may be used by parents, specialists and non-specialists.

Activities are designed to develop the child's potential progressively.

Although this technique is innovative, one wonders how parents who are untrained in the field of drama, can execute drama work with mentally handicapped children. McClintock has not effectively explained this.

2.1.2.5 DRAMA WITH THE PHYSICALLY HANDICAPPED

Drama can be used correctively, in removing the focus from the physical handicap. The same principle has been used with stutterers. Jennings has conducted training courses for physiotherapists in creative techniques for wheelchair children.

The wheelchair can be effectively used as a prop, or for creating sounds. Jennings (1973) quotes an improvised scene with physically handicapped children :

> "Several chairs grouped in pairs behind each other became all types of vehicles, including trains, and space-ships, making a point of utilizing as many knobs and dials already there as possible. But it really came into its own as a dodgem car during a fairground improvisation. Lengths of cloth were dropped round the lower part of the chair and girls were able to simulate ladies dancing in crinolines. Visual aids helped here - they showed African dance and Kathakali Indian dancers

wearing long padded bell-skirts, so the boys in the group felt it was perfectly manly to dance too." (1973 : 53)

It is all very well to say that drama has therapeutic value. However, researchers thus far have paid insufficient attention to the causes of problems, personality, social and economic background and emotional factors. These are of prime importance in therapy, and an individualized approach must therefore be adopted.

Dramatherapy will be effective in the long term if followed by appropriate reinforcement and maintenance programmes, so that the results of the first phase may be developed further. Neither Shirley nor Jennings has mentioned this. The follow-up forms an integral part in the use of drama with stutterers. This is discussed in detail in chapter 7.0 of this dissertation.

2.1.2.6 PSYCHODRAMA

The Dictionary of Psychology (1985) defines psychodrama as :

"A psychotherapeutic technique developed by J.L. Moreno, in which the individual acts out certain roles or incidents in the presence of a therapist, and, often, other persons who are part of a therapy group. The procedures are based on the assumption that the role-taking allows the person to express troublesome emo-

> tions and face deep conflicts in the relatively protected environment of the therapeutic stage." (Reber, 1985 : 50).

Jacob Levy Moreno (1892-1974) developed psychodrama in the 1920's and 1930's in the United States of America. Psychodrama represented the first attempt at using drama to solve interpersonal problems and promote individual or group awareness. Theorists have advocated greater research into the field of dramatherapy :

> "With the exception of but a few investigations, neither psychodramatic, behavioural rehearsal, nor fixed-role therapy use of role-playing has received substantial experimental scrutiny regarding its efficacy. All three approaches appear quite useful, but further evidence must be forthcoming before firmer outcome-relevant conclusions may be drawn." (Goldstein, 1971 : 143).

The dearth of recorded information regarding the effective use of psychodrama as therapy warrants greater attention. Psychodramatic techniques have formed an integral part of creative drama in this study.

The crystallising point in Moreno's discoveries came in 1921. He was impressed with the manner in which children acted out themes of stories they were told. He

subsequently tried this technique with adults in his 'Theatre of Spontaneity' while in Vienna. This gave rise to the theory of psychodrama.

Hodgson sums up Moreno's aim in psychodrama as,

> "... remedial, but some of his methods are easily extended to broader investigation. Dr Moreno himself makes frequent reference to Aristotle's views and indicates how these can be developed, and the way in which catharsis is of value to the actors as well as the audience. The therapy which takes place through drama is based on a controlled environment. For, as he indicates, it is far better that the expression should find its outlet in a laboratory situation where any dangers can be diverted. His statement that the function of the role is to enter the unconscious from the social world and bring shape and order to it, could well be applied to dramatic work in any of the approaches we have thus far discussed. Drama is a valuable way of gaining further insight into the human situation." (Hodgson, 1972 : 130).

While Moreno incorporates the audience in his therapy technique, this often has disadvantages, for example :

1. the child plays out inner-most fantasies, desires and feelings, which are of a personal and sensitive nature. Embarrassment is likely to result from exposure to an audience;

2. the audience does not always share in the problems of the participant. Adverse criticism or comments may actually accentuate the problem; and

3. nobody will understand one's problems better than one who has had similar experiences. The audience is often passive, comprising people of varied personalities and backgrounds.

A discussion on psychodramatic principles, reveals that the following instruments form the essential human tools of therapy : the subject or patient, the director, the staff of therapeutic aids or auxiliary egos, and the audience. These will be discussed briefly.

THE STAGE

Although a psychodramatic session may be conducted anywhere, Moreno (1984 : 9) recommends a stage because,

> "It provides the patient with a living space which is multi-dimensional and flexible to the maximum. The living space of reality is often narrow and restraining; he may easily lose his

> equilibrium. On the stage he may find it again due to its methodology of freedom from unbearable stress and freedom of experience and expression. The stage space is an extension of life beyond the reality tests of life itself. Reality and fantasy are not in conflict, but both are functions within a wider sphere - the psychodramatic world of objects, persons and events."

While it is agreed that the 'living space of reality is narrow and restraining', and that the stage gives the patient freedom of expression, the stage can also restrict socialization and inter-personal interaction, on a more personal level. Freedom of expression may be achieved in some forms of therapeutic activity. However, the severity of the patient's disability is an important factor to be considered when using the stage for therapeutic work.

Moreno continues to explain that the circular forms and levels of the stage, its architectural design in accordance with therapeutic requirements, levels of aspiration pointing out the vertical dimension, stimulate relief from tension and permit mobility and flexibility of action. As interesting as this may seem, the nature of the patient's problem has to be considered. If the patient is physically handicapped, or if frustration

sets in because of a negative result in the therapy session, the subject may sustain injuries, and the end result could be quite the opposite of what was intended.

THE SUBJECT OR PATIENT

The subject or patient is the most important part of the session, and is required to portray private feelings, thoughts and attitudes spontaneously, in a role. One may act out a past scene, a present problem, or test oneself for the future. Involvement is encouraged, for then only can realization take place. Through creativity, retrospection and self-analysis, one is able to identify and meet parts of oneself, and other persons, real or imagined, who form part of the mental conflict.

It is obvious that if one is severely mentally handicapped or maladjusted, the problem of visualization of characters is not going to be easy. The role of the psychodramatist is therefore of great importance, but poor or inadequate guidance may meet with negative results.

THE DIRECTOR

The director is the producer, therapist and analyst, who has to be alert and turn every clue emanating from the subject into dramatic action, and analyse responses.

AUXILIARY EGO

The Auxiliary Ego is an extension of the director or the patient, portraying the actual or imagined charac-

ters, eg. patient A, assumes the role of a father, policeman, or guardian of B, in order to help B. A who did not want to present his or her own problems, may be willing to help another member of the group present his.

FUNDAMENTAL RULES

Gazda (1968 : 29-33) has identified three phases in group psychodramatic therapy, namely :

1. The Diagnostic Phase : - in which the director gets to know the subject.
2. The Active Treatment Phase : - in which the patient undergoes treatment.
3. Patient's Solitary Reaction :- reactions to therapy are evaluated.
4. Recapitulation Period : -in which the patient is asked for a summary of what was experienced psychologically and mentally.

The third and fourth phases in particular are open to criticism. It is logical to assume that a person who is exposed to psychodrama is either mentally or physically affected. To ask one to evaluate one's own responses under difficult circumstances, will be likely to elicit a response which is not a true representation of one's state of mind.

Gazda (1968) does not provide any alternative approach-

es, should a negative response be forthcoming. It is suggested that a reinforcement and a maintenance period be implemented, so that follow-up to therapy may be effected.

THERAPEUTIC CONTROLLED ACTING OUT

In the therapeutic situation, the protagonist may have the sudden urge to do something which is normally considered unusual. The therapist should tolerate the protagonist and lead the acting out in a controlled direction.

Should acting-out be uncontrolled, the activity will deteriorate into a meaningless exchange of words. Moreno also warns against the mere camouflage of inner feelings through outward activities.

Spontaneity is a pre-requisite for controlled acting out. Moreno's operational definition of spontaneity is explained in the following passage :

> "The protagonist is challenged to respond with some degree of adequacy to a new situation or with some degree of novelty to an old situation. When the stage actor finds himself without a role conserve, the religious actor without a ritual conserve, they have to 'ad lib', to turn to experiences which are not performed and ready-made, but are still buried within them in an unformed stage. In order to

mobilize and shape them, they need a transformer and catalyst, a kind of intelligence, which operates here and now, 'hic et nunc', 'spontaneity'." (Moreno, 1972 : xii).

Closely related to spontaneity, is mental catharsis. The participant releases certain emotions through speech, action and movement under the supervision of the director.

PSYCHODRAMATIC TECHNIQUES

Summarized versions of Moreno's psychodramtic techniques appear below :

1. Soliloquy : This is a monologue in the presence of the director. The protagonist talks alone, and tries to find solutions to problems.

2. Therapeutic Soliloquy ; Others in the group perform side actions, focusing on hidden thoughts, feelings and emotions related to the protagonist.

3. Self-presentation : The protogonist acts out other roles, for example, of parents or other family members, as they visualize the protagonist, and vice versa.

4. Self-realization : The protagonist projects and enacts the plan of the future, even though this may be far - removed from present circumstances.

5. Hallucinatory Psychodrama : The patient enacts the hallucinations and delusions being experienced.

6. Double : The Double Technique requires an auxiliary ego to represent the patient while the patient remains in character. The auxiliary ego therefore establishes identity with the patient.

7. Multiple Double : Others in the group portray parts of the protagonist's personality. The doubles represent phases of the protagonist's life : the past, present and future. They function in a sequence, simultaneously.

8. Mirror : Should the patient not be capable of communicating emotions or thoughts, an auxiliary ego takes part, enacting the patient's role.

9. Role-reversal : One person plays the role of the other, and vice versa. Distortions of others' perceptions may therefore be revealed and corrected.

10. Future Projection : The patient projects into the future and articulates how the future may be shaped.

11. Dream Presentation : Instead of relating a dream, the patient enacts it, in a real-life simulation.

12. Re-training of the Dream : The director can help the patient to re-train a dream, the unconscious, so that dreams may change in character, enabling the patient to be in better control.

13. Therapeutic Community : Individual and group disputes or conflicts are settled in a Therapeutic Community, under the rule of therapy rather than the rule of law.

Each of the above techniques is highly specialized and requires careful planning and insight. Different techniques may be used for different situations, depending on the nature of the problem, and its severity. The role of the director is therefore of paramount importance, in guiding subjects towards the fulfilment of the objectives of the drama session. Psychodrama is a specialized field, and anyone attempting to incorporate psychodrama into any therapeutic form, must have a thorough knowledge of the subject, patient and the psychodramatic techniques.

2.1.3 SUMMARY

Section 2.1.1 critically examined the value of creative drama in developing communication ability, while section 2.1.2 surveyed the role of creative drama in assisting people with communication disorders. It is evident that the first section entails the use, application, interpretation and evaluation of the available literature, in relation to the broader field of communication. Chapter 3 (as outlined in the introduction to this chapter) will look at the available literature in relation to the problem of stuttering. Chapter 2 presented theories propounded by researchers who used creative drama to help persons with communication disorders. In the absence of sufficient empirical data about their research, and the general void in information on the subject, an in-depth critical evaluation of the field of

dramatherapy has not been made. Further, creative drama has not been used in this specific study, as therapy, but merely as an activity, before and after which, tests in oral communication were conducted to measure severity of stuttering. To administer therapy to a stutterer, is against the rules of the South African Medical and Dental Council (to be discussed in greater detail in chapter 7).

CHAPTER 3

LITERATURE SURVEY : STUTTERING ; THE CONCEPTUAL RELATIONSHIP BETWEEN CREATIVE DRAMA AND STUTTERING

3.1 STUTTERING :

3.1.1 INTRODUCTION

The need for verbal communication cannot be over-emphasized, yet sadly, it is often neglected, even by education officials.

In view of the large numbers of stutterers in Indian schools, and the inadequate attention given to the problem, it was felt that creative drama, because of its group nature and therapeutic value in other forms of communication disorders, could help stutterers. This required exploration, research and objective testing under controlled conditions. A survey was subsequently conducted to establish the extent of stuttering in Verulam, Tongaat and Phoenix. (Details of the survey appear in Chapter 4). A total of 275 stutterers was identified .

Another motivating factor was the Indian community's lack of access to speech therapists. There are no speech therapists based in Verulam, Phoenix or Tongaat. The community is largely unaware of how they can go about obtaining assistance for their children, and sometimes for themselves. The cost of therapy is also daunting. All of the above factors may have influenced

people to leave the problem unattended to. Stuttering, however, is a complex and confusing speech disorder, characterized by multiple causes (Van Riper, 1978). As such, enquiry led to in-depth investigation of this phenomenon, and its relation to creative drama.

3.1.2 THE NATURE OF STUTTERING

3.1.2.1 DEFINING STUTTERING :

Stuttering is defined by Van Riper (1978 : 257) as :

> "... disruption of fluency. Stuttering occurs when the forward flow of speech is interrupted abnormally by repetitions or prolongations of a sound, syllable or articulatory posture, or by avoidance and struggle behaviors."

An evaluation of the above description of the nature of stuttering implies that if the interruption is not abnormal, it may not be labelled 'stuttering'.

In fact, we are all disfluent, hesitant at times or jerky in communication. These characteristics per se, do not make us stutterers. Who then is a stutterer and what is the exact nature of stuttering? E.G. Conture (1982 : 15) provides an acceptable description of who a stutterer really is :

> ".... we become concerned and fairly sure that individuals are stutterers when within-word disfluencies are predictable parts of their

speech, and when these disfluencies persist over sufficiently long periods of time, and when they are consistently associated with certain sound syllables, words or speaking situations. We must remember, however that the terms must be persistent, predictable and consistent, for all their surroundings."

From Conture's classification of a stutterer, it may be stated that disfluency has to be measured over a long period to establish extent of persistence and consistency.

The manifestation of stuttering is as complex as its causes. The problem becomes more complex because of divergent symptoms, as stated by Dalton and Hardcastle:

> "... no two stutterers are alike in either the overt symptoms or the complex attitudes revealed through communication." (1977 : 49).

One or two instances of 'disfluency' do not imply that one is a stutterer. Even a temporary period of 'within-word disfluency' does not categorize one as a stutterer.

The moment of stuttering is characterized by blocks, repetitions or prolongations, which are persistent or consistent. In addition there are related behaviour characteristics such as facial contortions, breaks in rhythm of speech or forward flow of speech, feelings of

frustration or fear, anxiety concerning uncertainties, the stutterer's awareness that his/her speech is unnatural and disturbing to the listener. Stutterers also resort to avoidance of sounds, words, situations and even people.

Van Riper, in his research found that one stutterer repeated one syllable forty three times on a single word (1978 : 257-258). He explains further that in repeating a syllable, a normal speaker uses the correct vowel and repeats it at the regular tempo of his other syllables, whilst a stutterer uses various repetitions irregularly, often with tension, and the syllables in the stutter seem to be arrested, terminated suddenly and the breath seems to be interrupted. Stuttering is not characterized by occasional repetitions of words or phrases, um's and er's or reformulations. However, if this behaviour occurs too frequently, then stuttering becomes pronounced.

Stutterers also resort to avoidance behaviour. In order to postpone a word or syllable which generally causes stuttering, the stutterer repeats words or phrases preceding the dreaded word or syllable. ' Tricks' such as eye-blinks, frowns, facial contortions, head jerks and related physical actions are used to distract one from the act of stuttering.

Anti-expectancy devices prevent or minimize word fears in the stutterer. These devices may include laughter, whispers, monotonous speech, and a singing rhythm. Interrupter devices such as tremors, are common in advanced stuttering as secondary behaviour. Muscles become highly tense. This type of behaviour is often uncontrollable and involuntary.

Van Riper's (1971) equation defining stuttering focuses on the characteristics of stuttering and shows the complexity of the disorder and the influence of the different facts. In the following equation by Van Riper (1971) quoted in Van Riper (1973 : 218-219) the complexity of stuttering is evident :

$$S = \frac{PFAGH + Sf.WF + C_s}{M + Fl}$$

In the above equation, the symbols represent :

P : designates the amount of vulnerability to penalties the stutterer receives for stuttering.

F : frustration experienced during stuttering.

A : the amount of generalized anxiety from any source.

G : guilt and shame he experiences.

H : hostility towards himself and others.

Sf and Wf : situation and word fears.

C_s : vulnerability to communicative stress.

M : represents the observer's estimate of the stutterer's morale or ego strength, or his motivation to overcome stuttering.

Fl : represents the fluency he possesses and recognizes.

S : overall stuttering.

Van Riper (1973 : 219) himself admits that the equation is crude, for it does not consider the strength of the component habits of avoidance and struggle, nor the frequency, duration or other factors of possible organicity. However, the equation serves 'as a nucleus for the general assessment of clinical difficulty and this is what the therapist needs.' (Van Riper, 1973 : 219).

Aspects of the above equation will be discussed further in 3.1.2.3.

Jonas (1977) is of the opinion that stuttering is a disorder of many theories. This view is also supported by, amongst others, Diehl (1958) Orton (1937), Rieber (1977), Robinson (1964), Schwartz (1976), Wingate (1976) and Taylor (1986).

3.1.2.2 OVERT SYMPTOMS

The following overt characteristics of stuttering are usually measured : percentage stuttered syllables, average duration of stuttering, duration of the three longest moments of stuttering, overall speaking rate, articulatory rate, average duration of non-stuttered intervals, duration of the three longest non-stuttered intervals, average length of non-stuttered intervals, length of the three longest non-stuttered intervals and severity. These, in total, cover the overt characteristics of stuttering.

Wingate provides a symptomatic definition of stuttering which is applicable to this study. He is quoted by Ingham, (1984 : 16-17):

> "(a) Disruption in the fluency of verbal expression, which is (b) characterized by involuntary, audible or silent repetitions or prolongations in the utterance of short speech elements namely : sound, syllables and syllables of one word. These disruptions (c) usually occur frequently or are marked in character; and (d) are not readily controllable." (Ingham, 1984 : 16-17).

The above definition reflects the view of just one theorist. In view of the disagreement on a universally acceptable definition, it may be appropriate to look at other definitions of stuttering as well.

Starkweather says that stuttering is characterized by :

> "1. An abnormally high frequency and abnormally long durations of sound, syllable and word repetitions.
>
> 2. An abnormally high frequency and abnormally long durations of sound prolongations and pauses." (1987 : 14).

Starkweather also observed that abnormal amounts of effort were required in the production of speech. Struggle, tension and slow speech also characterized stuttering. The well-known author, Wendell Johnson's definition is quoted by Perkins :

> "... an anticipatory, apprehensive, hypertonic avoidance reaction." (Perkins, 1978 : 287).

Fiedler and Standop (1983) observed that stuttering is more pronounced under certain circumstances and speech types :

> ". Stuttering on the first word or first words of sentences is observed more frequently than on words within sentences. Hence, initial

sounds are stuttered more frequently than other sounds.

. Stuttering on long words is more likely than on short ones.

. Symptoms appear largely with grammatically significant words like substantives, adjectives, verbs or adverbs.

. Stutterers experience greater difficultly in the production of consonants than of vowels and therefore anticipate more likely blocking on them; this is especially the case with initial consonants." (1983 : 8).

Avoidance Behaviour - This arises when the stutterer anticipates stuttering at certain words or situations, and tries to avoid these for fear of feelings of frustration, anxiety, guilt, hostility or unpleasantness.

Postponement - the stutterer repeats words or phrases preceding the word at which he stutters. Sometimes, stutterers disguise the postponement by pretending to think, licking lips or playing with fingers.

"Postponement as a (sic.) habitual approach to feared words creates an anxiety and a fundamental hesitancy, which in themselves precipitate more stuttering." (Van Riper, 1978 : 268).

Starters - These are tricks used by stutterers. The moment of stuttering is preceded by sudden gestures, tics or other movements. The stutterer often repeats words preceding the word which creates the problems, and races through the words, to the feared word.

Anti-expectancy - This device is used to reduce or prevent word fears. These may include laughing, a monotone or whispered speech.

Interrupter Devices - Secondary stuttering is characterized by tremors, produced by tensing of muscles. Tremors lead to vibrations, from which the stutterer seeks freedom.

In summary, it may therefore be stated that stuttering is characterized by a lack of transition in smoothness. Stuttering is one of the most complex of communicative disorders. Dalton and Hardcastle (1977) say that most modern writers emphasize the complexity of its manifestations, and the inconclusiveness of research findings into its nature and etiology. This view is supported by, amongst others, Byrne (1983), Costello (1985), Eisenson (1958), Frank (1964) and Johnson (1956).

3.1.2.3 COVERT SYMPTOMS

The covert symptoms of stuttering, according to Van Riper (1978) may be listed as :

Fear - the speaker begins to fear the act of speaking, in anticipation of unpleasantness which emanates from punishment, rejection, mockery, pity and humiliation.

Situation Fears - the speaker fears specific situations which accentuate stuttering.

Word Fears - These arise from specific words which pose difficulties in speech.

Frustration - The inability to communicate freely, to feel verbally trapped, and to find that one's speech organs are uncontrollable, induces frustration, and a desire to find release.

Guilt - The stutterer is often embarrassed and experiences a sense of incompetence and guilt. Listeners' reactions, punishment, exclusion from participation in speech related activities and the listener 'talking for the stutterer', induce guilt.

The above covert symptoms of stuttering clearly indicate that the morale of the stutterer is often low, especially in speech-related activities, in which there would be a preference for silence rather than participation.

Self-image is therefore often at its lowest. This is exactly where the value of creative drama becomes evident. The role of creative drama in developing spontaneity, trust, socialization, confidence and self-image in general (which stutterers lack), was discussed in chapter 2.

There is therefore a theoretical basis, linking creative drama and stuttering. This link will be explored more fully in the second section of this chapter, under the heading: 'The Conceptual Relationship between Creative Drama and Stuttering' (see 3.2).

3.1.2.4 FACTORS INFLUENCING THE FREQUENCY AND SEVERITY OF STUTTERING

Van Riper's (1971) equation (discussed in 3.1.2.1) indicates that the overall severity of stuttering is influenced by factors such as penalty, fear, anxiety, guilt, hostility, situation fears and word fears, and the stutterer's vulnerability to communicative stress. Morale or ego, and fluency, which the stutterer does possess and recognizes, help to reduce the frequency and severity of stuttering.

Different factors are defined by therapists and the appropriate therapeutic techniques are adopted to reduce negative factors, and enhance positive ones. The specific value of role-play and creative drama activities in reducing disfluency, are discussed in chapter 6, as

well as in the second half of this chapter.

3.1.3 THE ONSET AND DEVELOPMENT OF STUTTERING

Since the concern of this study lies with persons between the ages of 11 and 18 years of age, the second and third stages of development outlined below, will be discussed to provide an insight into the development and behaviour during these years. This does not imply that the other phases are not important. However, the field of this study is delimited, and discussion of Phases 2 and 3 would be most relevant.

Peters and Starkweather (1989 : 310) have presupposed five stages in the development of the three aspects of human development, namely : motor behaviour, language competence and performance, and social/emotional and cognitive behaviour. The above authors have divided human development into the following phases.

Phase 1 : 2-6 years - Pre-School Period

Phase 2 : 6-12 years - Early School years

Phase 3 : 12-17 years - Puberty and Early Adolescence.

Phase 4 : 18-30 years - Later Adolescence and Early Adulthood

Phase 5 : 30 + years - Maturity.

The authors provide a comprehensive survey of speech-motor behaviour, linguistic behaviour and social, emotional and cognitive behaviour in each phase.

Phase 2 : (age 6-12) : The Early School Years

Peters and Starkweather (1989 : 310) state :

> "Patterns of stuttering that have not been removed, either by reducing environmental demands or by increasing the child's fluency skills, will become resistant to change, as do other speech behaviours. Children who have not already done so are likely now to begin reacting to stuttering with tension, struggle and avoidance."

The authors state that aspects of school life such as communication or linguistic demands can influence the development of stuttering, for example : increased vocabulary, length of sentences and attempts to

> "gain control over 'errors' may introduce muscular tension and create a stuttering problem or make an existing problem worse." (1989 : 310).

With regard to social, emotional and cognitive behaviour, children compare themselves with others, and often,

> "the sense of failure is overwhelming, and a low self-esteem develops, which may persist for many years." (Peters & Starkweather, 1989: 311).

Pupils realize the value of speech in evaluating themselves, as they feel that stuttering impedes success. This leads to avoidance reactions. The child is embarrassed, and feels a sense of guilt and failure. This, says Starkweather (1987), leads to serious emotional consequences. The stutterers feel that they have a type of sickness and they develop beliefs about stuttering. Peters and Starkweather (1989 : 312) explain further that stuttering can have a detrimental effect on academic performance, because of the child's reluctance to articulate ideas, thoughts and feelings, failure to clarify an obscure point leading to a less developed understanding than non-stuttering children of equal talent. Further, the emotional states of stuttering children are not conducive to conceptualization and perception of academic information. This leads to the question : 'What type of self-image does the stutterer have?' (Discussed in 3.2.2.)

Phase 3 : (Age 13-18) ; Puberty and Early Adolescence

The aforementioned authors state that in this phase there is usually no change in speech behaviours but there are some additions to tricks and avoidance behaviours. There is a growing awareness of others' perception of the stuttering.

The stutterer's word and sound fears are stable, and there is the tendency to avoid speech difficulties, thus strengthening anxiety. The stutterer begins to 'avoid

self-expression in order to avoid stuttering.' (Starkweather, 1987, in Peters and Starkweather, 1989).

The stutterer's identity is challenged, leading to emotional turbulence, social problems and rebelliousness. A developing sexual awareness, career interests and inter-personal rapport complicate emotional life. The problem of stuttering is therefore critical; it may cause severe withdrawal from social contact, depressions and social isolation.

From the foregoing discussion, it is evident that if the stutterer is not identified and assisted in time, the damage to personality and growth are almost beyond the individual's control, and often irreversible without professional guidance.

The views of Peters and Starkweather are supported by Andrews et al (1983 : 229) who provide empirical data :

> "There are four controlled investigations of samples of school children. When stutterers (mean age 10) are compared with nonstutterers they are found to score significantly (half a standard deviation) lower on intelligence tests than nonstutterers (A) (Andrews & Harris, 1964, 2 studies; Okasha, Bishry, Kamel and Hassan, 1974; Schindler, 1955). This deficit is evident in both verbal and nonverbal intelligence tests and is unlikely to be

due to performance on the tests being depressed by difficulties in communication because of stuttering. This appears to be a valid difference, not an artefact of test anxiety."(Andrews & Harris, 1964).

A summary of the above authors' views also indicates that stutterers show more educational difficulties than non-stutterers.

3.1.4 THEORIES ON ETIOLOGY

The etiology of stuttering seems to be multi-factorial. There is much controversy even today, as is indicated by Leahy (1989 : 155) :

> "Past theoretical positions as to the causes of stuttering have included either organic or neurologically disposing factors or environmental and emotional factors to be the source. Current thinking, however, supports a combination of both organic pre-disposing factors and environmental aspects in the causation of stuttering."

Bloodstein (1981) and Van Riper (1982) suggest that cerebral damage and neurological disorders also cause stuttering. Leahy (1989 : 156) states that,

> "whether or not a child without any pre-disposing factors but subject to various environ-

mental stresses would develop a chronic stutter, is not clear."

In the absence of overwhelming proof for any one theory, and the fact that the cause of stuttering is less important to this study than the overt symptoms of stuttering, the different theories on etiologies will be only briefly outlined.

3.1.4.1 SOME ORGANIC THEORIES OF STUTTERING

The search for an organic or constitutional factor as the basis of stuttering initiated many studies, chiefly by Andrews and Harris (1964), Beech and Fransella (1968) and Dorman and Porter (1975). The extent of research is outlined by Dalton and Hardcastle :

> "The search for an organic abnormality within the central nervous system has led people to investigate the cerebral dominance of stutterers, the EEG records, possible links with epilepsy, general motor disabilities and even eye movements. Beech and Fransella review these findings as well as those related to metabolism and the cardiovascular system. Their conclusions are cautious. They suggest from the evidence that the stutterer may have incomplete cerebral dominance or bilateral representation of speech." (1977 : 50).

The experiments of Dorman and Porter, however, refuted the views of Beech and Fransella, saying that cerebral dominance or bilateral representation of speech are not clearly demonstrated.

Van Riper (1971), on the other hand, suggests that stuttering is basically a disorder of timing. He implied that mistiming of voice, articulation and respiration, together with poor muscle co-ordination can cause stuttering.

'Impaired auditory feedback' or 'Delayed auditory feedback' (DAF), is one of the more recent organic theories of stuttering. According to Dalton and Hardcastle, the DAF technique is one in which the speaker's utterance is played back with one-fifteenth to one-tenth of a second's delay. Stutterers became more fluent, and began to stutter in a more relaxed way. Easier repetitions and prolongations were produced instead of hard blocks. The reasoning behind DAF is that 'prolonged speech' removes the focus from the stutter.

Perkins (1978) cites the organic theories of Dr L.E. Travis and Dr S.T. Orton advanced in 1927. They believed that stuttering was a consequence of the left hemisphere not being sufficiently in command to dominate all speech co-ordinations as it normally does, and that the two cerebral hemispheres were thought to be competing for control of the speech musculature, and stuttering was the manifestation of that struggle. These theories

initiated further studies of brain waves, but eventually ceased because of inconclusive findings.

In view of the inconclusive organic theories of stuttering, Dalton and Hardcastle say that the organic factor needs something else to trigger it off, such as anxiety or tension. However, these factors are not always responsible for stuttering.

3.1.4.2 SOME PSYCHOGENIC THEORIES OF STUTTERING

The psychogenic theories of stuttering suggest a greater tendency towards difficulties in inter-personal adjustment. Freund (1966) suggests that stutterers as individuals, regardless of their enormous personality differences, have certain features in common, and they impress as over-sensitive and are emotionally poorly controlled.

Stuttering is also seen as defense against anxiety, which is the cause of apprehension towards speech. It is also generally felt that stutterers are socially introvertive, less happy-go-lucky, generally difficult to interpret, and do not respond impulsively to the outside world as normal speakers do.

Lass (1982 : 289) states that most theorists have accepted abnormal amounts and types of speech-related anxiety as a prominent feature in the clinical syndrome of stuttering, irrespective of etiology. However, this

view is refuted by Beech and Fransella (1968 : 124). They felt that there was no evidence to suggest that the stutterer had any specific or group traits that categorised him/her as a stutterer.

Falck (1969) is of the opinion that :

> "Stuttering is not a thing a person has. It is something a person does. It is a behaviour. It is learned behaviour, and as such, follows rules of learning the same way as other forms of behaviour." (1969 : 10).

Falck explains that stuttering is non-hereditary and not something one is born with, but that it is possible that certain characteristics or traits which enhance the learning task, are inherited.

As opposed to the previous theorists who advocated stuttering as learned behaviour, Fiedler and Standop (1983) go a step further, in discussing the consequences of reward and punishment in the acquisition of stuttering. This is evident in positive or negative emotions, sometimes giving rise to different types of speech. Positive feelings result in fluent speech, while negative feelings enhance inconsistent disfluency. This phenomenon is explained by them as follows :

> "The disfluency becomes stuttering when the stimuli that elicit the disfluency are noxious because of learning : that is, originally neural stimuli become capable of eliciting

negative emotion because they have been strongly and/or frequently associated with noxious unconditional stimuli." (Lass, 1982 : 292-293).

While the foregoing theories on the psychogenic origin of stuttering are worthy of note, Dalton and Hardcastle (1977 : 54) still sound pessimistic. They believe that strictly psychoanalytic theories do little to enlighten us, for they have yet to produce any evidence that can be weighed.

3.1.4.3 STUTTERING AS LEARNED BEHAVIOUR

Wendell Johnson (1963) felt that stuttering begins with faulty diagnosis, mainly by hypercritical parents. Such listeners misdiagnose childhood disfluencies as stuttering. The child sensing the concern, tries to speak without stuttering. Johnson argued that children who develop stuttering are no different from those who do not, except that they learn to try to avoid being disfluent. The more they struggle with disfluency, the more accentuated becomes their problem. Eventually they begin to anticipate difficulty and prepare to struggle with it. He described stuttering as 'hesitation' to hesitate.

With regard to stuttering as learned behaviour, Fiedler and Standop (1983 : 38) state :

> "Just as with fluent speech, stuttering is operantly determined. It is learned just as fluent speech is learned and its acquisition occurs essentially from conditions set by the social environment (reinforcement, punishment, modelling, instruction, etc.). Where stuttering is concerned there are no simple contingencies. Rather, complex and multiple patterns of reinforcement are responsible for the origin, development, and maintenance of stuttering."

The Anticipatory Struggle theories attempt to explain stuttering as learned behaviour. Oliver Bloodstein (1975) expanded on Johnson's theories, and found that many children who developed stuttering were delayed in speech development as well. They anticipate trouble in certain speech situations, and this affects fluency.

Associated with learned behaviour is the adaptation effect. Sheehan (1958 : 132) explains this as follows :

> "The stuttering which occurs during the first reading decreases fear sufficiently to permit less stuttering on the second; that which occurs during the second reading reduces fear further so that there is less stuttering on the third, etc."

This implies that greater familiarity with a situation or speech act can enhance fluency to some extent. Oliver Bloodstein (1975) found that many children who developed stuttering were delayed in speech development as well, for they anticipate trouble in certain speech situations and this affects fluency.

3.2 THE CONCEPTUAL RELATIONSHIP BETWEEN CREATIVE DRAMA AND STUTTERING

INTRODUCTION

In order to set the scene, and to be able to grasp the scope of the relationship between creative drama and stuttering, it must be emphasized that the etiology of stuttering may be attributed to organic, psychological and environmental factors. Organic causes are attributed to nervous and muscular disorders; psychological causes may be attributed to lack of self-confidence, poor self-image, word fears, situation fears, vulnerability to penalties, frustration, anxiety, guilt, hostility and communicative stress; while environmental causes of stuttering are attributed to labelling, penalty, learned behaviour, observers' reactions and society's attitude towards the stutterer.

Creative drama has a direct effect on each of the etiological factors. In the ensuing discussion, the value of creative drama in relaxation, neuro-muscular control, movement, self-image, socialization, stimulation and self-confidence will be established. The conceptual

relationship between stuttering and creative drama will be founded within this framework.

A summary of the covert symptoms of stuttering (discussed in 3.1.2.3) reveals that the stutterer experiences fear, guilt, tension, anxiety, hostility and frustration, and lacks self-confidence. These negative factors enhance communicative stress and prevent the stutterers from articulating their thoughts, feelings and emotions as they would like to, that is, with coherence and logicality, the basis of which is fluency. As proof of this argument, Dalton and Hardcastle (1977) mention that stutterers will change words and even sentence structures when they fear stuttering.

This being the status quo, the stutterer experiences rejection, social isolation and a feeling of incompetence, the sum total of which contributes to low morale or diminished self-image.

The nature of the creative drama activities, their objectives, the models from which they have been adapted and their principles, address each of the covert symptoms of stuttering. It is agreed that the covert symptoms were not measured in this study, and one may therefore argue that the creative drama activities were actually designed to 'treat' factors which were not empirically tested. However, it must be emphasized that renowned theorists such as Van Riper (1978) and Travis

(1971) identify the above-outlined covert symptoms as contributory factors in the frequency and severity of stuttering.

In addition, psychological aspects of stuttering, that is, covert symptoms, are not the researcher's field of expertise, and are difficult to assess. As such, overt symptoms have been measured quantitatively.

The study was based on the hypothesis, 'That creative drama activities such as creative games, improvisational drama, dramatherapy and psychodrama reduce frequency and severity of stuttering'. (see chapter 4)
Having discussed the theories under-pinning the individual disciplines of creative drama and stuttering, the next logical step is to discuss the link between the two.

It will be argued, in the ensuing discussion on the conceptual relationships between creative drama and stuttering, that outward and visible changes (fluency and disfluency) 'cannot be affected without a change in the condition of the nervous system.' (Feldenkrais, 1972). It will be further argued that if the stutterer participates in activities which create the ideal environment for the alleviation or enhancement of a specific characteristic or condition, the resultant effect will be mental change, reflected in the quality of speech.

In order to understand the relationship between creative drama and stuttering, one needs to understand the basis for commonality underlying these two disciplines. Stuttering is a characteristic of speech which is produced by speech organs. The cranial nerves send impulses from the brain to the musculature for articulation. The nervous system forms an integral part of the speech mechanism. Creative drama focuses on sensation, feeling and thought, with the nervous system as an integral 'electrical system'. If, according to Feldenkrais (1972), movement reflects the condition of the nervous system; facial expression and voice also reflect the condition of the nervous system (1972 : 35-36); and 'improvement in body condition or action reflects mental change' (1972 : 36),then speech reflects mental and nervous conditions (i.e. brain and nervous system functioning). The underlying mobilizing mechanism for speech and creative drama, is therefore the functioning of the nervous system. Before delving into the relationship between creative drama and stuttering, it will be necessary to make a brief reference to the nerves and muscles involved in speech.

The cranical nerves send impulses to the musculature of articulation. Travis (1971 : 52) identifies the following important controls :

> "1. The right and left hypoglossal, the XII Cranial nerves. They carry impulses for the

movements of the blade of the tongue. These movements are essential aspects of certain speech sounds, such as n, l, r, s, z, t, d, ʃ, ʒ, and θ in which the tongue tip is raised or pointed or shaped ....

2. the pharyngeal plexus : This nucleus is made up of fibers from the IXth, Xth and XIth Cranial nerves, the glossopharyngeal, the vagus and the spinal accessory nerves. Impulses from this plexus characteristically control in the production of p, b, t, d, k, and g; also s, z, θ, ʤ, ʃ, ʒ; and to some extent they control the vowel sounds and the consonants f and v.

3. the right and left glossopharyngeal nerves, the IXth Cranials. Impulses from these nerves control the production of the vowels, especially those that are made with the back of the tongue, such as u, v, ɔ, and ʤ.

4. the right and left auditory nerves, the VIIIth Cranials. Impulses from the sensory nerves serve as monitors in the servosystem that is involved in the learning and control of speech. Every sound of speech is thus under the control of the auditory nerves.

5. the right and left facial nerves, the

VIIth Cranials. Impulses from these nerves characteristically control the production of the consonants f, v, p, b, m, and w, also the vowels, u, v and ɝ.

6. the right and left trigeminals, the Vth pair of Cranial nerves. Those articulatory movements that involve the opening and closing of the jaws are controlled by impulses from that pair. These impulses are purely voluntary. Proprioceptive impulses are carried by the trigeminals to help monitor the articulatory movements of the lips. Thus the vowels æ , a , ɔ are in part controlled by the trigeminals, as well as the consonants f, v, m, p and b."

Travis explains that muscles of articulation, as a group, participate in the formation of speech sounds by structuring the consonants. There are various muscles assisting, neutralizing, or opposing each other in speech production. He says that there are times, initiated by emotion or stress, when almost all the voluntary muscles of the body could participate in the speech process.

Muscles of the pharynx, mouth, jaw, tongue and the palatine muscles play important roles in speech production. A comprehensive alphabetical listing of muscles of speech, together with their origin, insertion, nerve

supply, and action is provided by Travis (1971: 45-49). This list is not included in this report, but it will suffice to mention that there are 58 major muscles, each with its own origin, insertion, nerve supply and function. The table below (Travis, 1971: 45-49) is part of the complex Table 2-1 provided by Tavis, and is incorporated here by way of an example.

"TABLE 2-I : DEUPREE-RAPPAPORT CLASSIFICATION-ORIGIN, INSERTION, NERVE SUPPLY, AND THE ACTION OF MUSCLES OF SPEECH

O - Origin; I- Insertion; N - Nerve Supply; A - Action;

PH : muscles used for phonation or initiation of voice sounds

AR : muscles for articulation of the further molding of these sounds into speech

Reference Number of Muscle	Phonator or Articulator	Name of Muscle, Orig. Insertion, Nerve Supply, and action
I	AR	AMYGDALOGLOSSUS O-Pharyngeal aponeurosis of the tonsil I-Continuous with palatoglossus N-Pharyngeal plexus

(Travis, 1971 : 45)

3.2.1 RELAXATION AS A CONCEPTUAL LINK

Attempts at improvement of human behaviour have been made for many years. Feldenkrais (1972:30) says that,

> "The Esoteric - that is, 'internal' - systems practised in Tibet, India, and Japan, and used in all periods of human history have also influenced Judaism."

He continues to explain that the cabalists, Hassidim, and the practitioners of 'Mussar' (moralists) were influenced by Zen and Raja Yoga, the art of meditation to gain composure of one's mental and physical faculties.

While the models of other recognised authors are used as far as exercises and games are concerned, the theoretical explanations with regard to the place of movement in self-development and correction, will be based on Feldenkrais's theories.

How exactly does movement bring about change/improvment in bodily and mental control? Feldenkrais has identified three states of existence : waking, sleeping and awareness. He says ,

> "The waking state seems to be a good condition in which to learn processes that involve repetition and explanation, but not suggestion. Habits acquired in the waking state are

> difficult to change, but they present little hindrance in grasping new matter." (1972 : 31).

The last sentence in the foregoing quotation has peculiar relevance for this study, for the quality of speech is unavoidably determined by sensation, feeling thinking and movement. These concepts will be dealt with further. Feldenkrais is of the view that it is 'difficult to change habits acquired in the waking stage'. This is true, but it is not impossible.

According to Feldenkrais (1972 : 31),the components of the waking state, namely sensation, feeling, thinking and movement 'serve as a basis for a whole series of methods of correction'. In order to correct an individual, one has to focus on the 'whole' as well as the 'parts.' The 'whole' refers to the person's waking state and the parts refer to its components. These four components interact with each other and do not work independently, and attention to any one of these components would 'influence the others, hence the whole person'. (32).

By attempting to explain how movement exercises helped to bring about self-improvement in mental and physical

states, it is necessary to explain the four concepts as propounded by Feldenkrais.

> "In sensation we include, in addition to the five familiar senses, the kinesthetic sense, which comprises pain, orientation in space, the passage of time and rhythm. In feeling, we include - apart from the familiar emotions of joy, grief, anger, and so forth - self-respect, inferiority, supersensitivity, and other conscious and unconscious emotions that colour our lives.
>
> Thinking includes all functions of intellect, such as the opposition of right and left, good and bad, right and wrong, understanding, knowing that one understands, classifying things, recognising rules, imagining, knowing what is sensed and felt, remembering all the above, and so on.
>
> Movement includes all temporal and spatial changes in the state and configurations of the body and its parts, such as breathing, eating, speaking, blood circulation and digestion." (1972 : 31-32).

Feldenkrais provides the following reasoning for movement being the best means of self-improvement. (1972 : 33-39).

1. The nervous system is the seat of movement, for we cannot think, feel or sense, if the brain does not initiate such series of actions. Our senses, feeling and power of thought enable us to know our positions with the gravitational field 'with respect to other bodies'.

2. It is easier to distinguish the quality of movement, than the quality of other factors.

3. We have a richer experience of movement - that is, we have more experience for movement and more capacity for it.

4. The ability to move is important to self value.

5. All muscular activity is movement. It would therefore imply that thought, feeling and sense, being operative factors in movement, will affect muscular activity. The author (1972 : 35) says,

> "Permanent relaxation of muscles causes action to be slow and feeble, and permanent excessive tension causes jerky and angular movements; both make states of mind apparent and are linked with the motive of the actions. Thus in mental patients, nervous persons, and those with an unstable self-image, it is possible to discern disturbances in the muscular forms in accordance with the deficiency."

6. Movements reflect the state of the nervous systems - sending series of impulses from the nervous system resulting in muscular contraction. Feldenkrais explains that visible and outward changes are mobilized by a change in the nervous system. Improvement in body condition or action reflects mental change. 'The change in the center control is a change in the nervous system.' (1972 : 36).

7. Movement is the basis of awareness.

8. Breathing is movement - in order to improve breathing the human skeleton has to be placed with respect to gravity. The skeletal muscles must be organized for better standing and movement in order for breathing to succeed.

<u>HOW DOES RELAXATION THROUGH MOVEMENT EXERCISES AFFECT FLUENCY?</u>

From the foregoing discussion, it may be concluded that movement affects sensation, feeling and thought. By using the most appropriate register (Heathcote's concept), the leader/facilitator will be able to lead the subject through a movement process, which presumably will affect sense, feeling and thought, and therefore the nervous system. If movement reflects the state of the nervous system (Feldenkrais), and if facial expression and voice reflect the condition of the nervous system (1972 : 35-36), then logically, other activities

such as breathing, talking and dancing will reflect the condition of the nervous system as well.

The movement exercises, which affect the domains of sensation, feeling and thought, create a nervous condition of calmness, tranquility and composure. If this nervous condition is permanent, then muscle action will be slow and feeble, while 'excessive tension would cause jerky and angular movements.' (Feldenkrais). This may probably be an explanation for muscular contortions, tics and visible difficulty in speech of stutterers.

Having established a nervous system conducive to speech, the self-image of the subject then increases. The subject is in greater control of muscles involved in breathing and in speech, has ordered thoughts, and feels a greater sense of confidence and control over the speech situation. The nervous system therefore mobilizes the outward and visible changes, free of tension and fear. The outward and visible change in the stutterers' case, is fluency, if not totally, at least to some improved degree. If this does not happen, then the movement exercises need to be questioned, but having been based on renowned models, and the fact that improved fluency was evident, substantiates this conceptual link.

3.2.2 SELF-IMAGE AS A CONCEPTUAL LINK

Feldenkrais says that one's self-image also consists of four individual but inter-dependent factors, namely movement, sensation, feeling and thought. In addition, any one action will be present to some extent in another. (1972 : 10-11). In order to improve one's self-image, one needs motivation, which in turn is determined by diverse factors, such as status, morale, position, power, attitudes, purpose and belief. In drama, particularly in role-play, one identifies with specific values, attitudes and relationships.

In reality, attitudes have to exist in relationship to people, things, ideas, views and our very surroundings. It may be said that our values determine our attitudes, which in turn determine relationships, and it is our relationship with people, (in the context of drama, and this study in particular) that determines our self-image. Self-image is always changing, depending on our circumstances and relationships. In fact every action or stimulus changes self-image. One's physical outlook, mental abilities, strengths and weaknesses also determine self-image. The needs of society and the emphasis society places on certain values, for example, education, good speech and sport also create self-image.
The question that arises is, 'What type of a self-image does the disfluent speaker (stutterer) have? Common sense dictates that a person with a defect, more espe-

cially a child or teenager, will be embarrassed or humiliated.

It may be concluded that self-image needs to be changed in order to effect fluency, and not fluency to improve self-image. Herein, lies the merit of drama.

If 'self-image consists of four components' (namely movement, sensation, feeling and thought), which is true and acceptable, then in order to feel confident, one must

> "be in a certain posture, and in some kind of relationship to another being or object. That is, one must also move, sense and think." (Feldenkrais, 1972 : 11).

One's concept of confidence is established in relation to other people. Confidence cannot exist independently of thought, movement, feeling and sensation. In the same way, a positive or negative self-image is established in relation to others. If creative drama can improve one's self-image, then one's movement, sensation, feeling and thought, being components of the self-image are also affected.

This means, that one begins to respond with greater sensitivity, feeling, thought and movement, and it therefore stands to reason that the nervous system, as an integral part of such processes, is influenced or

affected. Action emanating from such processes would therefore reflect the condition of the nervous system. Self-image is a reflection of the nervous system also, and an act of speech, which involves movement, sensation, thought and feeling, will determine the 'self-image', which in turn determines fluency as a characteristic of speech. A positive self-image will lead to greater control and fluency, thus the conceptual relationship is once more established.

HOW DOES CREATIVE DRAMA DEVELOP SELF-IMAGE?

Creative drama incorporates movement, feeling, thought and sensation, which may be conceptualized as 'self-image'. Well-defined, meaningful exercises, creative games and activities based on sound educational principles and models of well-known drama - theorists, can positively contribute towards the overall development of personality.

Heathcote's concept of role, (that is, the role determined by the tasks people undertake in society) can bring out latent attributes, such as status, power, morale, attitudes, purpose and belief - all characteristics of self-image.

Perhaps the views of Brian Way on the value of drama in developing uniqueness of the individual (self-image) have relevance to this discussion:

"Characterization provides the opportunity

through which depth is added to these experiences by more detailed personal awareness, both conscious and unconscious, as a result of imaginative projection of oneself either into the circumstances governing other peoples' lives or else actually 'being' other people in such circumstances." (1967 : 172)

In creative drama, the participants can see themselves in a superior role of power, status and authority, and this will determine their emotional responses, and thus the self-image.

3.2.3 SOCIALIZATION AS A CONCEPTUAL LINK

The Literature Survey : Drama (Chapter 2) focused on 'drama' as a 'social tool'. It may be re-iterated, that, according to Heathcote, drama leads to an understanding of the world we live in by 'living through and sharing experiences.' (Hodgson, 1978 : 165).

Lessons should be designed specifically with the social factor as the focus. Socialization, (together with other conceptual relationships aimed at) has a bearing on fluency in stutterers. The question that follows is, 'How does socialization lead to fluency?'

'Drama creates micro-societies and therefore micro-skills are required for micro-behaviour.' (Heathcote). As such, it would be necessary for social interaction between two or more members of a group. Heathcote's

models, namely: 'Mantle of the Expert', 'Teacher in Role', 'Register', and Moreno's 'ego techniques', together with the exercises encompassing attitudes, personal-relationships, verbal contact or intervention, and sharing, exchanging views and ideas, discussion and participation in relation to others, are all social activities, and are designed to promote personal development. Hodgson and Banham have written :

> "... group play is a means of socialization. In play, there is the opportunity to learn to adjust, allow, assert, and interact in a contained and safely controlled situation." (1973: 90).

CREATIVE DRAMA FOSTERS SOCIALIZATION IN THE FOLLOWING WAYS :

- the subject is part of a group, in which trust, commitment, inter-dependence and sharing of responsibilities should exist. Trust and commitment are not achieved artificially, but depend on,

> "students' personal and collective power in the situation, and consciousness of the choices implicit in the process. This will in turn determine the depth of spontaneity in the drama." (Nebe, 1991 : 132)

- the success or failure of the activities are shared. One pupil/subject does not have to bear responsibility -

there is therefore 'group responsibility';

- the group works together at reaching decisions, solving problems or taking a particular course of action;
- pupils as a group decide on the format of improvisations, roles, leaders, followers and situations;
- bonding affects social considerations;

- pupils relate easily to people of their own age group;
- pupils identify by understanding a particular social situation or role;
- the informal, conducive nature of the drama session promotes inter-personal relationships;
- the attitude of the teacher/facilitator (defined by Heathcote as 'Register') facilitates social activity;
- in 'The Mantle' of the Expert', the 'expert' responds seriously and responsibly as a 'professional' would - there is therefore 'social-responsiblity';
- fear, tension, anxiety about being embarrassed, and inferiority complexes are minimized because of trust, the role of the facilitator, and the pupils and individuals in their own right;
- in 'group-dynamics' there is a togetherness that is not a herd, but a unity, fostering common goals. Variation in role does not create permanent hierarchy or feelings of insecurity. The group works as a team that has been universalized, then becomes individualized, according to the subjects' abilities.

That the pupil has participated in drama exercises, games and improvisation which foster socialization, creates a sense of belonging, acceptance, equality, warmth, importance support and usefulness. These constitute the subject's self-image in relation to the group. Stutterers do not have to worry about others' attitudes towards weaknesses, because they (stutterers) have become psychologically more mature (Axline, 1969 : 16). This state reduces communicative stress.

The discussion on 'self-image' as a conceptual link in this part of the study explains how 'self-image' is formed. The 'self-image', being a mental condition, would affect visible and outward changes, and speech being one of these, would therefore fall under this category. It is therefore appropriate to conclude that socialization will have a bearing on fluency of speech, and as such it emerges as yet another conceptual link between creative drama and stuttering. Enhanced social interaction will enhance fluency of speech.

3.2.4 <u>REGISTER, STIMULATION AND ABSORPTION AS ENVIRONMENTAL FACTORS IN THE CONCEPTUAL LINK</u>.

Heathcote has differentiated the concept of 'register' from its normal linguistic definition. (discussed in chapter 2). It is necessary for the facilitator to create a conducive atmosphere for socialization, trust, self-image, relaxation, development of confidence and physical activity.

The facilitator's attitude towards the subjects and the activity (the zeal, enthusiasm and excitement instilled into the activity); the entertaining approach, and entertainment value of activities, the level of stimulation and the involvement or absorption, are often determined by the facilitator and the lesson-objective.

It is presumed that the correct 'register' leads to stimulation and absorption, which in turn determine the subject's moods, feelings and thoughts, which Slade (1954) termed as 'absorption' and 'sincerity' (discussed below).

A conducive environment, friendly atmosphere and support, lead to trust, understanding and security. The subject responds spontaneously in a natural way, depending on the stimulus of the facilitator. It may therefore be stated that dramatic experience and learning are effective if a conducive learning environment is created. The facilitator is responsible for this environment. Having created an environment conducive to learning through dramatic activity, the subject relates to the facilitator and others in the group in a special way, unlike a relationship between the subject and someone outside the creative drama situation. This state is achieved because of the 'emotional spell of spontaneity'. (Slade, 1954 : 89). Spontaneity cannot be achieved without intense emotional

involvement. Slade (1954) says that two qualities arise out of spontaneity, absorption and sincerity, which he defines as :

> "Absorption - being completely wrapped up in what is being done and what one is doing, to the exclusion of all other thoughts, including the awareness of or desire of an audience. A strong form of concentration." (1954 : 12).
>
> "Sincerity - a complete form of honesty in portraying a part -bringing with it an intense feeling of reality and experience, generally brought about by the complete absence of stage tricks, or at least of discernible tricks, and only fully achieved in the process of acting with absorption." (1954 : 4).

All lessons should be based upon the principles of 'Register', stimulation and absorption, amongst others, and if the lessons have the desired effects, then the therapeutic functions which they were designed to have, do exist. It has already been established that the four components of our waking state : sensation, feeling, thought and movement, are inter-dependent, and that any one is affected by the other. In order for absorption in an activity or task to take place, the nervous system must play an important role. Feldenkrais states that:

> "the muscular pattern of the upright position, facial expression, and voice reflect the condition of the nervous system. Obviously, neither position, expression, nor voice can be changed without a change in the nervous system that mobilizes the outward and visible changes." (1972 : 35-36).

Speech being an activity of the nervous system, would therefore be fluent or disfluent, depending on one's mental state. Absorption, being the product of stimulation, (through the facilitator's conducive 'register') would remove the focus from the stutterer's disfluency to the activity, that is, to creative games and exercises. It is thus appropriate to conclude that a deeper level of absorption should lead to greater fluency in speech. This is also evident in Paiget's (1951) and Erickson's (1963) views, that symbolic play serves to assimilate and consolidate experiences and enable the child to overcome defeat and fear, thus reducing communicative stress.

In summary, it may be stated that there exists a conceptual relationship between stuttering and creative drama within the organic (nervous and muscular systems), psychological (self-confidence, self-image, anxiety and tension), and environmental framework.

The questions that arise are :

1. Is the stutterer conscious of the learning/extent of learning during creative drama activities?
2. How does transfer of learning into daily practice, occur?

The following argument addresses these questions:

3.3 LEARNING THROUGH DRAMA

Thus far, the conceptual relationships between creative drama and stuttering have been discussed. Each of these is characterized by attitudes and attitudinal changes. As such, learning strategies and principles employed should focus on attitudes or 'a state of mind'. This view is supported by Bolton (1984b). He is of the opinion that a change of understanding is affected by 'sharing of an agreed attitude' : a universal truth; and change in understanding is preceded by four stages : 'The Artificial Drama Stage', ' The Reinforcement Drama Stage', 'The Clarification Drama Stage' and 'The Modification Drama Stage'. Each of these is explained by Bolton as follows :

1. The Artificial Drama Stage : occurs when,

> "the feeling quality brought to the experience by the participants is not compatible with the intellectual understanding of the subject matter." (1979 :44).

With regard to this stage, Bolton explains that there can be no change in understanding if congruence between feeling and objectivity is lacking.

2. The Reinforcement Drama Stage : Pupils work from the known, that is, 'what they already know', and use drama as an 'unconscious re-iteration of what is already understood', (1979 : 44-45).

3. The Clarification Drama Stage : What is known or just learnt is clarified, and,

4. The Modification Drama Stage : Pupils adapt and adjust their understanding. For a change in understanding, reflection is required.

Nebe (1991) compares the learning models of Bolton (1984) and Van Ments (1983):

> "The Describe and Demonstrate methods (of role-play) can lead to artificial drama because of the limited emotional or critical engagement required in such a process. Such methods can also simply reinforce what is already known on an unconscious level. Roles or types of behaviour are reinforced and as a result the process becomes an integrative one, rather than an innovative one. This kind of process has dubious educational value because

it reinforces thoughts and behaviours without critical or spontaneous involvement.

The Practise and Reflect methods serve to clarify knowledge of how people think and behave. These methods are similar to the Clarification Stage because they facilitate a process of becoming conscious of personal behaviour. However, being 'aware' does not necessarily mean there will be a change in understanding or behaviour.

The Sensitize and Create/Express methods are similar to the Modification stage. They seek to engage the student on a feeling level. It is asserted that through discussion, assessment and emotional awareness, the student will become more sensitive, expressive and creative, thus bringing about a change in behavior. Bolton claims this is the most 'significant form of learning' in educational drama." (1991 : 74).

From the foregoing discussion, it becomes evident that 'The Modification Drama Stage' and 'The Sensitize and Create/Express' methods are the most suitable learning models to be investigated for the purpose of this dissertation. The pupil engages in drama at a 'feeling level', will enter into discussion, evaluation and assessment and gain in emotional awareness in the clinic

situation. In future, the effect of transference outside the clinic should also be studied. It is assumed that the banking system will come into effect because sessions can span a period of months, and lessons follow a developmental sequence based on complexity and degree of involvement. Greater investigation into dialectic principles involved in drama work with stutterers per se, needs to be considered in subsequent studies.

3.4 CREATIVE DRAMA IN RELATION TO TRADITIONAL STUTTERING THERAPIES

In order to appreciate the value of creative drama in stuttering, it is imperative to place creative drama in perspective, against the background of traditional stuttering therapies. In so doing, existing therapies will be critically evaluated, and controversies will be highlighted, where possible.

The conceptual relationship between creative drama and stuttering has been discussed in the preceding section of this chapter. Having established this link, each of the creative drama sessions was designed against the theories of existing principles and models of drama.

An attempt at answering the following questions, will adequately cover the topic :

1. Are there similarities/differences between creative drama and traditional stuttering

therapies? and

2. Why is the contribution of creative drama to the field of stuttering, unique?

3.4.1 SIMILARITIES/DIFFERENCES BETWEEN CREATIVE DRAMA AND TRADITIONAL STUTTERING THERAPY, AND THE UNIQUENESS OF CREATIVE DRAMA IN REDUCING STUTTERING

The most important difference between creative drama and traditional stuttering therapy, is that creative drama lessons/activities are not intended to treat the overt symptoms of stuttering. At no stage does the facilitator focus on the disorder of speech, or the specific cause of stuttering. Stutterers are regarded as normal fluent children, who participate in enjoyable creative dramatic activities, which stimulate them to respond spontaneously. Creative drama activities are merely presented, and stuttering can be measured. In traditional stuttering therapy, the child's stuttering is under direct focus, and all activities are directed to it.

It is believed that the uniqueness of the use of creative drama in stuttering lies in the fact that the stutterer is not 'singled-out' or made to feel different from others. Disfluency is neither discussed nor focused upon. Creative drama activities remove the focus from the child's stutter, to the activity itself. Traditional therapy focuses directly on improvement of

fluency, although 'motivation' forms part of the therapeutic programme. Even Van Riper (1978 : 286-287) is of the opinion that confronting a stutterer's abnormality is a painful experience for the stutterer and it is often met with resistance!

> "First it is always difficult to confront one's abnormality to expose it enough to modify it." (1978 : 286-287).

The second reason provided by the said author is that when the stutterer is alone or in less stressful situations, it is felt that no major treatment or overhaul is necessary. The clinician, through proper motivation, can positively affect the stutterer's views, set goals and help the client to map out the route to the desired goal. Motivation is a pre-requisite for speech therapy.

From the above discussion, it is evident that 'motivation' as a traditional speech therapeutic technique, plays a vital role in enhancing or improving fluency. However the following questions arise :

1. What happens if the speech therapist fails to motivate the client? Should therapy still proceed?
2. What does the therapist do if all techniques have failed with a 'difficult' patient? Can the therapist engage in any 'alternate therapy', which has been thoroughly researched?

With regard to the first question, it is necessary to mention that the uniqueness of creative drama lies in its 'naturalness'. It is the natural instinct of a child to be creative (Jennings, 1973). She writes : 'Psychologists and educationalists alike have long realized the importance of play for the developing child'. Creative games, exercises and activities form an integral part of psychomotor development, pre-school and infant education, remedial teaching, psychoanalysis, psychodrama and dramatherapy. Motivation becomes much easier, for,

> "The teacher must therefore content himself with the child's expansive instincts, fair play, and free play." (Holmes, 1911 : 163).

In addition, motivation is intensified, when a child is given improved status, the role as leader is established, and the sense of acceptance and belonging within the group are acknowledged.

In creative drama, the facilitator or initiator is not reliant on one stimulant. If patience is exhausted, and if there is a failure to motivate or stimulate the child through a specific technique, the lesson can very well follow the direction of the child's preferences and natural ability. Group participation reduces anguish, feelings of guilt for failures, and the social signifi-

cance of 'bonding' (Heathcote, 1984) enhance the feeling of security. This will alleviate the breakdown in communication or understanding. Heathcote's use of 'register' (Wagner, 1976 : 38) as a principle of drama enhances motivation as well. Should the speech therapist find difficulty in motivating the patient through traditional speech therapeutic techniques, creative drama may serve as an alternative medium.

Psychotherapy which is used in stuttering therapy, is closely allied to creative drama. In psychotherapy,

> "... the close relationship between the clinician and his client provides an opportunity in a permissive setting to explore new ways of coping with stress." (Van Riper, 1978 : 277)

In creative drama, however, 'stress' as a concept, is neither pointed out, nor discussed with the stutterer.

However, there is much controversy about the role of psychotherapy in stuttering therapy. Van Riper's stutter-more fluently approach is said to be psychotherapeutic (Gregory, 1979 : 28-29) for the stutterer's self is equated to the stuttering, and by alleviating the stuttering, the stutterer's self-concept is changed. According to Gregory (1979 : 29), both Bloodstein (1975) and Perkins (1977) have acknowledged the value of psychotherapy in stuttering therapy, and even Brady (1968),

a psychiatrist reported that some stutterers require psychotherapy if they have a poor self-image, passive behaviour and other negative behaviour patterns which may emanate from the problem of stuttering.

In establishing a conceptual relationship between creative drama and stuttering, the following concepts have been identified: relaxation, socialization, self-image, confidence, stimulation, spontaneity and neuro-muscular control through movement exercises. These factors, collectively represent the organic, psychological and environmental etiologies of stuttering.

The use of relaxation in traditional speech therapy is mentioned by Van Riper (1973 : 40-61) and Gregory (1979). However, the subtle difference between relaxation in speech therapy and in drama, is that in the former, the subject focuses the effect of relaxation, chiefly upon speech, that is, speech forms an integral part of the relaxation exercise, for example,

> "... the stutterers were then instructed to sigh gently and freely with soft vocalization, then to produce relaxed tones, and from this begin speaking or chanting phrases and sentences." (Van Riper, 1973 : 42).

In drama however, the 'nervous system is the seat of movement' (Feldenkrais, 1972 : 33-39), which affects sensation, feeling, thinking and attitude. The said author states that all muscular activity is movement,

which implies that thought, feeling and sense, being operative factors in movement, will affect muscular activity such as speech. If relaxation is aimed at the sense, feeling and thought level, rather than the physical speech level, the effectiveness of relaxation may be greater and more lasting.

The value of self-confidence in improving self-image has been discussed by Luper and Mulder (1964 : 185). It is agreed that confidence can reduce severity and frequency of stuttering. The aforementioned authors also resort to stimulus-response bonds (162), and emphasize the

> "emergence of a new self-concept. The Phase Four stutterer brings into therapy a set of values and judgments which help to set off and maintain his stutterings." (1964 : 171).

It is therefore true that the above-mentioned conceptual links have been used in traditional stuttering therapies. The differences, however, lie in the approaches adopted by creative drama and traditional speech therapy. What is noteworthy, is that previously, it was unknown that a conceptual relationship existed between creative drama and stuttering. This research has established this, and this now provides a basis for future investigation.

No claim is being made for creative drama as a 'rehabilitative' procedure, or a form of therapeutic treatment of stuttering. This does not lie within the scope of this research, and one can therefore not make any deductions about a cause - effect relationship.

The ensuing discussion focuses on related theories and controversies in stuttering therapy, for this research may also lead to controversy, as is to be expected. No research is full-proof. As such, it is not envisaged that the theories propounded in this study will be accepted without question. Evaluation against existing, and possibly alternative theories, is necessary.

Van Riper (1978 : 209) is one of the many theorists who has identified the value of role-play in reducing severity and enhancing fluency in stuttering.
He writes :

> "A most curious discovery of many speech clinicians is that some children, when complexly immersed in some other person's role, can speak almost perfectly the same sentences that they cannot possibly say without error in any other situation."

This view is also supported by Gregory (1979 : 23), who used relaxation procedures to reduce stress in speaking situations, by reducing negative emotion in a hierarchy of speaking situations, beginning with the least

stressful. He emphasizes that relaxation work is an integral part of nearly all therapy programmes. The possibility of transfer from a role-play situation to real life is evident in the following :

> "Both Britton and Shoemaker (1967) and myself (1968, 1973a) report the use of role-playing in the clinical environment to prepare the client for the transfer of reduced responding with negative emotion to real life situations." (Gregory, 1979 : 23).

Gregory also promotes the idea that role-play has a place in transfer of fluency,

> "by bringing the stutterer's family, friends and other interested persons into the clinic to participate in role-playing and other activities of a group." (Gregory, 1979 : 51).

The aforementioned author also explains that the stutterer is asked to list speaking situations in descending order of difficulty. However, criticism can be levelled against this technique, for the concept of role-playing (according to the above authors' definitions) focuses only on its value in terms of speaking situations. This implies that role-play is used to acquaint the stutterer with a series of hierarchical speaking situations, so that should such a situation arise in real life, the subject may be more aufait with such

situations. Whilst this may have some merit, it must be emphasized that role-play in the context of creative drama, goes beyond speaking situations, for example, a role may be represented by one's walk, posture, gesture, facial expression, sensory perceptions, voice and emotions. It is a frame of expression, and as such is the natural medium of the child.

The objective of role-play in creative drama is to focus on the participant's inner being, through total involvement, and if directed properly, the participant

> "has the discipline, commitment, trust and integrity to reveal himself and sacrifice 'the innermost part of himself'." (Grotowski, 1968: 35).

Grotowski argues further that if we strip ourselves and touch an extraordinary intimate layer, exposing it, the life mask cracks and falls away. Creative drama in this research has drawn on Slade's 'absorption' (1954), Way's 'characterization' (1967) and Heathcote's 'gut-level' drama (1984). For total immersion in drama, trust and commitment are essential. Nebe (1991 : p.133) says :

> "The trust has to come from a deep commitment within each individual, but it also has to come from a commitment and respect towards other participants in the drama."

Creative drama is both an individual and collective act, and is not merely the preparation to face other situations through hierarchical speech situations. The objectives of role-play differ in traditional therapy and creative drama.

A more scientific study involving role-play (as one of the tests) was conducted by Peins (1984). The role-playing activity from lesson 5 (1984 : 86-87) was a speaking situation involving a threatening clerk. The stutterer was required to answer slowly in legato style. Peins quotes results of the series of tests (1984 : 96): 67% showed a reduction in severity after 6 months of therapy.

With regard to the 'Stutter more fluently' versus 'Speak more fluently approach', Gregory (1979 : 13-14) explains that contributors such as Bloodstein (1975a), Sheehan (1970a, 1975), and Van Riper (1973) seem to place more emphasis on studying and monitoring speech behaviour than the increase in fluency in working with confirmed stutterers. According to Gregory, the following theorists advocate an increase in fluency and a decrease in stuttering : Brady (1968, 1969), Cherry and Sayers (1956), Goldiamond (1965), Perkins (1973a, b), Ryan (1974) and Webster (1974).

Gregory continues to point out that the former group believes that,

> "by learning to monitor and gradually change the stuttering behaivour the stutterer is reducing his sensitivity to stuttering (Desensitization), and simultaneously this prepares the way for the most effective modification (counter-conditioning) of stuttering to take place." (Gregory, 1979 : 13-14).

Gradually, avoidance behaviour is reduced and the stutterer begins to notice the change in fluency.

The second group of theorists believe in transition from speech containing stuttering to fluent speech with little or no attention to the monitoring of stuttering.

In traditional speech therapy, the technique,

> "'Speech Exploration - Increasing Easy Normal Speech', focus lies on 'making a mistake easily'." (Gregory, 1979 : 15).

Gregory cites Williams (1971) as the proponent of this theory, in which there is an analysis of the stutterer's total talking behaviour. The stutterer learns that when there is a 'mistake' during speech, this can be made easily. The emphasis is not on stuttering but on the

way of talking as a whole. Gregory (1979 : 16) says :

> "Thus he seems to attempt to prevent the person from attending to stuttering or striving for fluency : he directs the person to a way of talking in which the person senses and changes disruptive tension that interferes with the forward movement of speech."

This technique differs from creative drama, for in this discipline, no attention is focused on stuttering at all. The act of stuttering, and its avoidance is evident in another traditional therapeutic technque,

> "Reducing Associated Behaviour, Fluency Initiating Gestures, Feeling of Control." (Gregory, 1979)

In this form of therapy, one has to differentiate between the moment of stutteriing and behaviours assoicated with it, and attempt to modify these behaviours. The stutterer therefore accepts the stuttering (initially) but reduces the associated behaviour.

A summary of the views on attitudinal change indicates that theorists such as 'Ryan (1974) and Webster (1974) have created precise speech change programs'. (Gregory, 1979 : 19). The controversy lies in the extensiveness of procedures used to effect beliefs and affective responses.

In a research article, The Enigma of Fluency : A Case Study, Goldsmith and Anderson (1984 : 47-52) present their findings of a study in which a 19 year old male university student who stutterered, was subjected to the 'Stutter-Free Programme'. The authors outline the aim of the programme as :

> "to establish speech that is free from stuttering and a self perception that is compatible with this new speaking behaivour."

The therapy programme comprised five overlapping phases, involving the principles of operant conditioning to shape forward moving speech with continuous phonation and a controlled rate.

During the eight-month interventon period, speech measurements were made at 5 intervals. These measurements included percentage stuttered syllables and the number of syllables spoken per minute. The pre-therapy speech test score for percentage syllables suttered was 20,4% while that of the 8th week test was 0%. The pre-therapy reading test score was 18,3% while that of the 8th week test was 0%. However, after being enrolled with a group of adult stutterers, the aim of which was to provide peer support and the opportunity to practise monitored speech, the student's 10th week tests revealed a percentage stutter of 8,3% in the speech test, and 0% in the reading test. After follow-up, the 32nd week tests

revealed a stuttered syllable percentage of 0,65% for speech and 0% for reading.

The authors say that although stutter-free speech can be realized during intervention, relapse can still occur. They provide the following explanations for the above responses:

> "Prins (1970) has coined the term 'stuttering overkill' which he sees as the by-product of intensive therapy schedules. The subject experienced a change in speech behaviour in three weeks and may not have been fully aware of how the fluency was established. Webster (1980) in support of Prins, blames the inadequate learning of fluency producing skills for the relapse, and Van Riper (1973) points out that the habit-strength of the stuttering behaviour cannot be ignored."

The above discussion of results indicates that the effective management of relapse can contribute to the maintenance of fluency. This is described by Perkins as the 'perennial weak link in the therapeutic chain'. (1979 : 119).

If a 32 week programme with 5 evaluations can still yield a percentage stutter at the end of the therapy phase, then there is reason to believe that other forms of therapy may produce such results as well. What type

of results will be produced by stutterers who participated in creative drama activities (which proved to reduce frequency and severity of stuttering) has still to be measured. No claims are made for transfer and maintenance.

This section provided some similarities and differences between creative drama and traditional speech therapy, an overview of some of the theories and therapies of stuttering, and some controversial issues pertaining to therapy. It is impractical to cover every theory, therapy or controversy in the literary spectrum. What must be emphasized is that there are various causes mooted for the complex problem of stuttering, and as such there are different types of stutterers with different symptoms. Various theorists make claims to different theories and therapies. 'Can creative drama activities be regarded as an intervention measure of value?' The empirical research aimed at investigating whether frequency and severity of stuttering can be reduced. The notion of transfer and maintenance have yet to be examined further. This study, is therefore regarded as a 'pilot study', which now paves the way for future research.

3.5 SUMMARY

This chapter was divided into three broad areas :

(a) literature survey on stuttering, with specific reference to definitions, overt and covert symptoms, onset and development, theories on etiology and stuttering treatment. The objective of this section was to provide some background information of stuttering, so that the reader may understand the complexity of stuttering;

(b) the possible conceptual relationship between creative drama and stuttering; and

(c) creative drama in relation to traditional stuttering therapies, similarities and differences, between the two fields, and the apparent uniqueness of creative drama in reducing severity and frequency of stuttering. Attention was also drawn to controversies concerning established therapies.

No claim has been made for any specific characteristic as a unique, individual, contributory factor in reducing stuttering. The specific delimitation did not allow for measurement of covert behaviour. This has yet to be measured.

CHAPTER 4

METHODOLOGY AND GENERAL PROCEDURE

INTRODUCTION

For a non-speech therapist to investigate the value of creative drama in stuttering, may seem a little anomalous. The Medical and Dental and Supplementary Health Professions Act, No. 56 of 1974 states that registration with the South African Medical and Dental Council is a pre-requisite for practising of any medical or health related disciplines (Statutes of the Republic of South Africa, Vol. 18, Issue No. 24: 767). However, it must be emphasized that the researcher did not administer therapy, nor was creative drama intended to be a therapeutic medium of speech correction. Various creative drama techniques/lessons were presented, with stutterers as participants, and the effect of creative drama on stuttering, was measured. In addition, this research was conducted in consultation with a registered speech-language therapist and lecturer in speech-language therapy. Two independent speech-language therapists assisted in the measurement of stuttering parameters.

Dramatherapy has been used with persons with communication disorders (Shirley, 1984), the mentally retarded (McClintock, 1987), immigrants (Jennings, 1973) and persons with psychological problems (Moreno, 1984). Researching the value of creative drama in stuttering would provide a new perspective to dramatherapy and act as a spur to future research.

4.1 STATEMENT OF PROBLEM

This study proposes to investigate whether or not creative drama activities reduce frequency and severity of stuttering.

4.1.1 SUBPROBLEMS

4.1.1.1 Is there a difference in percentage stuttered syllables before and after creative drama activities (indicative of frequency)?

4.1.1.2 Is there a difference in average duration of stuttering before and after creative drama activities (indicative of severity)?

4.1.1.3 Is there a difference in the duration of the longest moment of stuttering before and after creative drama activities (indicative of severity)?

4.1.1.4 Is there a difference in the average duration of non-stuttered intervals before and after creative drama activities (indicative of severity)?

4.2 AIMS OF THE RESEARCH

To investigate the problem as stated in 4.1, and to set up suitable clinically controlled circumstances designed to provide answers to the subproblems listed under 4.1.1.

4.3 THE HYPOTHESIS

That creative drama activities such as creative games, improvisational drama, dramatherapy and psychodrama reduce frequency and severity of stuttering.

The hypothesis implies a positive response to each of the sections, 4.1 and 4.2, above.

4.4 DELIMITATIONS

This research :

4.4.1 measured only fluency changes before and after creative drama activities;

4.4.2 was conducted 'in-clinic' with the researcher as observer;(1)

4.4.3 involved 35 Indian stutterers between the ages of 11 and 18 from Verulam, Tongaat and Phoenix on the North Coast of Natal;(2)

4.4.4 did not measure fluency changes after withdrawal;

4.4.5 extended over a period of 16 weekly sessions of 1½ hour duration each;

4.4.6 involved stutterers who received no other form of therapy during the creative drama phase;

4.4.7 did not allow any direct parental or other influence in the creative drama sessions;

4.4.8 did not use any existing models or techniques employed by speech therapists in the creative drama sessions;

4.4.9 did not consider the notions of transfer - because of the delimitation of the study to an in-clinic environment. The scope of transfer lies in successive studies; perhaps a series of studies initiated by the results of this study.

4.4.10 did not compare fluency changes based on sex or specific areas within the sample group.

4.4.11 did not consider didactic principles that may prevail outside-clinic;

4.4.12 did not attempt to investigate the value of creative drama in effecting socio-cultural or psychological re-integration;

4.4.13 consisted of an experimental and control group to prove that creative drama (and nothing else) was responsible for fluency changes in the sample group, and

4.4.14 did not evaluate cognitive or behavioural changes in stutterers.

Notes :

(1) The specific design of the study limited it to an 'in-clinic' environment, with the researcher as facilitator. The specific reason for this is that creative drama has to have a naturally conducive environment to be effective, and the facilitator is part of this environment. To bring in external observers or interviewers would have removed the domain to an 'out-of-clinic' environment, which extends beyond the ambit of this study.

(2) The areas of Verulam and Tongaat are examples of settled communities, whereas Phoenix is a developing sub-economic settlement with diverse communities, displaced

because of political, social and economic conditions. Despite being adjacent to each other, these three areas represent divergent social, political, economic and cultural backgrounds. So new is Phoenix, and so rapidly is it growing that its history has yet to be written.

The 35 experimental group pupils and 12 control group pupils (all stutterers) were from Verulam, Phoenix and Tongaat, and may therefore be regarded as fairly representative of the socio-economic, cultural and political backgrounds of the regional Indian population as a whole. Further, Verulam and Tongaat incorporate rural and semi-rural communities, while Phoenix is urban in nature.

4.5 THE SAMPLE

4.5.1 CRITERIA FOR SELECTION

A total of 35 stutterers for the experimental group, and a total of 12 for the control group were identified. Stutterers had to reside in either Verulam, Phoenix or Tongaat, on the North Coast of Natal, and be in the age group, 11 to 18 years of age. The total of 47 stutterers therefore represented the entire stuttering population between the ages of 11 and 18 years, prepared to participate in the research programme. The objective of the control group was to show that changes in severity and frequency in stuttering were attributed to

the activities to which the experimental groups were exposed. (Ingham and Costello, 1985 : 95). Two independent moderators (qualified, registered speech-language therapists confirmed that the experimental and control group members were confirmed stutterers.

4.5.2 METHOD OF SELECTION

4.5.2.1 THE EXPERIMENTAL GROUP

Letters (Appendix A) outlining the research programme were sent to principals of primary and secondary schools in the three areas. In addition, an article outlining previous pilot studies, their results and the importance of the proposed study was published in Post-Natal in January 1990. The overall response was overwhelming. A total of 275 stutterers from both primary and secondary schools responded.

There existed the possibility that several pupils would not be able to attend creative drama sessions because of centralised venues, transport problems, and days and times of sessions. The aim of selection was however to establish an experimental group of 60 pupils. Because of the large number of stutterers, it was decided (after consultation with Miss H. Kathard, Speech Therapist - UDW) not to include stutterers under 11, for stutterers in this age group often overcome stuttering without help. The remaining pupils, together with their parents were invited to meetings at the following venues :

Tongaat South Library, Verulam Town Hall and Stanmore Library (Phoenix). Meetings were scheduled on weekday afternoons and on a Saturday morning for the convenience of working parents. The purpose of these meetings was to discuss days and times of sessions, venues, length of programmes, nature of activities and sizes of classes.

A total of 132 stutterers attended the meetings. This figure provided a clearer picture of the possible number of pupils who might attend regular, weekly sessions. However, after providing parents with the necessary information, and having emphasized the need for regularity and punctuality, and the fact that pupils would be debarred from continuing with the course if absent for more than 3 sessions, a number of 51 was obtained. After recording 51 pre-therapy tests, 16 pupils did not return to join the creative drama sessions, for the following reasons :

- excessive volumes of home-work;
- extra-curricular activities after school; and
- general lack of interest in improving speech.

This resulted in an experimental group of 35 stutterers, who participated in 16 weekly, 1½ hour creative drama sessions.

It may be argued that 'dropouts' inflate the effectiveness of a therapeutic programme. This is true. However, in this case, none of the 16 pupils participat-

ed in the creative drama programme, and are therefore not regarded as 'dropouts' in terms of the study per se.

4.5.2.2 THE CONTROL GROUP

This group was mounted as a control measure; for without such measures, it may not be correct to conclude that creative drama alone was responsible for improvement in fluency. As such, the 16 pupils from the group of 51 (mentioned in 4.5.2.1) who did not participate in the creative drama activities, were persuaded to participate in 16 weekly sessions of school related subjects (discussed later in this chapter). 12 Pupils completed this programme (thus the control group). Pupils of the control group participated in this programme with the consent of their parents, and with the knowledge of Prof. D. Schauffer (promoter of this study) and the 2 independent speech-language therapists who moderated the scores of this research.

4.5.3 HISTORICAL BACKGROUND OF SUBJECTS

After a meeting with officials from the Research and Planning section of the Department of Education and Culture (House of Delegates), permission was granted to identify stutterers from primary and secondary schools in Tongaat, Phoenix and Verulam. (discussed).

These areas were chosen because :

1. these areas were in close proximity to the researcher, and therefore easily accessible;

2. Verulam and Tongaat are areas which represent the history of the Indian community in the country. Both these towns are rural and semi-rural in nature, while Phoenix is an urban, mobile community, comprising displaced Indians from various parts of Natal of diverse socio-political, cultural and subeconcomic backgrounds. Verulam and Tongaat are also settled communities, comprising residents from the lower, middle and upper-middle strata of Natal Indian society.

4.5.3.1 INDIVIDUAL CASE HISTORIES : EXPERIMENTAL AND CONTROL

The case histories of all 35 experimental group pupils, and the control group were obtained via a questionnaire (Luper and Mulder, 1964 : 216-219 - Appendix I) completed by parents/guardians.

The objective of the questionnaire was to ascertain the family, birth, speech and developmental histories, as well as the physical conditions of the subjects, educational history and social development. This body of information was vital in the nature of creative drama exercises and the possible explanations for results produced. Should a follow-up to this study be made, the questionnaires are available upon request, for these may be beneficial in assessing behavioural, cognitive and attitudinal changes.

Authenticity: Telephone numbers of subjects' parents/guardians who completed the aforementioned questionnaires are available for the purposes of verification or follow-up procedures.

Results of the analysis of questionnaires appear in the table below :

TABLE 1 : INFORMATION FROM CASE HISTORIES OF EXPERIMENTAL AND CONTROL GROUPS

Characteristics	% of Population
1. age group : 11-18 years	100
2. Religions Grouping : Hindu Muslim Christian	77 6 17
3. Parents' views of children : children as leaders children as followers didn't know	 33 37 30
4. Parents' views on intelligence : average above average below average	 67 27 6
5. Subjects failed in at least one year	7
6. Subjects who didn't like school	0
7. Mothers over 18 at birth of child	90
8. Suffered from severe illness	63
9. Subjects hard of hearing	0
10. Parents' categorization of children as disfluent	100
11. Growth seemingly normal	90
12. Deviant behaviour	0
13. Normal birth	90
14. Subjects prefer playing alone	20

4.5.3.2 GROUPING

TABLE 2 : GROUPING WITHIN EXPERIMENTAL GROUP

Centre	Boys	Girls	Age group	Std Range
Lenarea Sec. School-Phoenix	8	3	13 - 18 years	7 -10
Stanmore-Phoenix	4	1	11 - 16 years	5 - 9
Tongaat South	7	1	12 - 15 years	6 - 8
Verulam Town Hall	4	2	11 - 18 years	5 - 10
Stonebridge-Phoenix	5	-	12 - 16 years	6 - 9
	28	7		

TABLE 3 : GROUPING WITHIN CONTROL GROUP

Centre	Boys	Girls	Age group	Std Range
Phoenix-Lenerea Sec.	2	2	13 - 17 years	7 - 9
Verulam	4	-	11 - 18 years	8 - 10
Tongaat	3	1	12 - 16 years	6 - 9
	9	3		

4.6 MATERIAL AND APPARATUS

This section lists and describes the material and apparatus used in the entire research.

These were :

4.6.1 A READING EXCEPT (Approximately 5 minutes).

The reading excerpt was an articles from the Daily News and was entitled : Mob Burns Sats Conductor to Death. It was felt that the current nature of the article would

be of interest to the pupils.

(Appendix B : Reading Excerpt).

4.6.2 MONOLOGUE QUESTIONS

It was felt that if the pupil was required to speak for 3-5 minutes without interruption, the range of expression would be limited. Ten questions were therefore formulated in order to extend the speaking range. (Appendix C : Monologue questions). The stutterer was required to read these questions selectively and to give a verbal response to each, without any outside interference.

4.6.3 VENUES FOR WEEKLY SESSIONS

Venues were : Lenarea Secondary School, Stanmore Library and Stonebridge Library, all of Phoenix; Tongaat South Library (Tongaat) and the Verulam Town Hall (Verulam).

There was no charge for the use of the above venues, except for the Verulam Town Hall. Despite a written plea to the Town Clerk, giving an outline of the study and pointing out that the service was free of charge to stutterers of Verulam, no concession was granted.

The librarians allowed the use of their General Activity Rooms, which were fully carpeted, air-conditioned and large enough for the group. At Lenarea Secondary School a classroom was used, and desks and chairs posed some problems. The Verulam Town Hall was most unsuitable,

but there was no alternative. This Town Hall is in the centre of town, along a busy street, and next to a vacant lot which is frequented by vagrants. The noise factor was therefore a distracting element to be contended with.

4.6.4 EQUIPMENT

4.6.4.1 VIDEO CAMERA

A JVC/GRA video recorder was used to record the tests. The camera operated on a power requirement of AC 110-240 V, 50/60 Hz, and a power consumption of 23 watts. The approximate weight of the camera was 380 g, which facilitated handling and movement. A mini-cassette with a tape speed of 23,39 mm/sec and a recording time of 30 minutes was used. The camera had an electronic view finder with 0,6" black/white CRT and the minimum required illumination was 10 lux. Battery and electricity could be used to operate the camera. The camera was operated by the researcher.

4.6.4.2 AUDIO CASSETTE RECORDER

Each of the tests was also recorded on audio cassette. A semi-professional Hitachi radio-cassette tape-recorder TRK-68 W was used. The tape recorder functioned on a power supply of AC : 200 to 220 V, 50/60 Hz Ac. The built in microphone was 0,6 MV, 700 ohms input sensitivity and impedance of 8 to 100 ohms. The playback frequency range was 80 - 1000 Hz of a normal tape.

4.6.4.3 STOP WATCH

The stop watch was an All-Purpose Professional Electric Merces Alarm Stopwatch, with the following features : lap reset, node and start-stop buttons. Readings were in minutes, seconds, and one thousandth of a second chronograph.

4.6.4.4. CALCULATOR

A scientific multi-functional Cassio calculator was used to calculate percentages, means and standard deviations.

4.6.4.5. AUDIO/VIDEO CASSETTES

RAKS Super AQ Techroma VHS Video Cassettes of 3 hour duration, and DNL low noise, high quality audio cassettes of 60 minute duration were used for recordings.

4.6.4.6. OTHER MATERIALS

Prestik, feathers, glue, felt-pens, crayons, pieces of cloth, beards, pencils, writing paper, poetry books, Comprehension Passages, Dictionaries, Crossword Puzzles.

4.6.5 RATING SCALES

Calculations for the measurement of stuttering formulated by Ingham and Costello, in Curlee and Perkins (1984 : 330 - 333).

> "For some time now, clinical researchers in this country and in Australia and Canada, have used a relatively simple dual button press electronic counter-timer that can be used to

record the new data required for calculation of % SS and SPM (4). Pressing one button registers non-stuttered, syllables and the other registers stuttered syllables. Articulatory rate is measured by arranging for the unit to cease recording time if a syllable count is not registered within a specified time period. During overall speaking rate measures, the counter time is set to record uninterrupted time periods. When such equipment is available, these measures (% SS stuttered and SPM) can be made quite conveniently from the entire talking sample so that the approximate measures described below can be avoided. Details of this equipment may be obtained by writing to the authors. If one does not have such equipment, however, the sampling and calculation techniques described below can be used to produce reliable and relatively accurate data from the talking samples within reasonable constraints, once the data collector has become proficient. Each of the dependent variables described below is to be calculated separately for each STS."

Since the focus of this study was on repetitions, prolongations and blocks in stuttering, the mathematical calculations (5) formulated by Ingham and Costello were the most suitable, more especially because these scales are currently in use internationally. Each of the calculations was recorded on a data sheet, adapted from the authors (refer to Appendices D and E).

The dependent variables and mathematical calculations of the rating scale are discussed below. Scale number 10 has been adapted for this study.

Ingham and Costello's descriptions of each of the calculations follows :

"1. Percentage syllables stuttered (%SS)

$$\%SS = \frac{\text{total number of stutterings}}{\text{total number of syllables spoken}} \times 100$$

The total number of stutterings is obtained by counting the entire number of moments of stuttering in the talking sample. Stutterings can occur between words and within words. Further, more than one stuttering can occur in a word; when this occurs, each moment of stuttering should be counted separately. When all moments of stuttering have been tallied from listening to the entire sample, a total

count equals the total number of stutterings in the sample.

In order to calculate an approximation of total number of syllables spoken, one must first calculate the total amount of client talking time (CTT) in the sample and the average number of syllables spoken per minute. To measure the total amount of CTT in the sample, listen to the entire sample and activate a stopwatch any time the client is talking. If the client pauses for more than 2 seconds (for example, between sentences or thoughts, while turning the pages of a book or manipulating a toy, or when another person is talking), turn off the stopwatch until the client once again begins talking. Use the stopwatch so that it cumulates the CTT so that the total amount of CTT shows on the stopwatch at the end of the sample. Record this number in minutes and seconds in the appropriate place on the Stuttering Data Sheet (see Appendix E).

Calculation of the average number of syllables spoken per minute requires first a count of the total number of syllables spoken during the entire sample. Because this is a tedious and time-consuming measurement task when many

analyses are to be made (unless one has the electronic counter described above), a somewhat less precise, but adequate and reliable shortcut has been developed. Listen to the entire talking sample again and this time listen carefully to randomly selected intervals of the client's uninterrupted talking. Using the stopwatch, time each talking interval and count the number of syllables spoken in each interval until a minimum of 2 minutes of CTT is accumulated. It is important that the intervals represent the entire sample, so they should be selected from sections throughout the length of the sample. Moments of stuttering that are interjections of words or syllables or repetitions of words or phrases are counted only once. When total number of syllables spoken during 2 min of accumulated talking is recorded, divide that number by 2 (or by the amount of talking time that has been accumulated if it is different from 2 min.). Now the approximate number of syllables spoken per minute has been determined. To calculate the total number of syllables spoken in the entire sample for the above formula, multiply

the number of syllables spoken per minute by the CTT as determined above.

Now both total number of stutterings and the (approximate) total number of syllables spoken are known. Use these numbers to calculate %SS in the above formula.

2. AVERAGE DURATION OF STUTTERINGS—Listen to the speech sample throughout once again and time the length of 10 different stutterings, randomly selected but with an ear to their representativeness regarding length. Sum the total times and divide by 10 to estimate the length of the average typical moment of stuttering.

3. DURATION OF THE THREE LONGEST STUTTERINGS

Pick out what you judge to be the three longest stutterings occurring in the talking samples. Time each with a stopwatch and note their length on the Stuttering Data Sheet.

4. OVERALL SPEAKING RATE (APPROXIMATE) CALCULATED IN SYLLABLES PER MINUTE (SPM)

$$\text{overall speaking rate (SPM)} = \frac{\text{number of syllables spoken in 2 min}}{2}$$

This measure has already been calculated in 1 above.

5. Articulatory rate

$$\text{articulatory rate (SPM)} = \frac{\text{total number of nonstuttered syllables}}{\text{total amount of talking time}}$$

Articulatory rate (or phone rate) is the measure of the client's speaking rate unimpeded by disfluencies or stutterings. It is also measured in SPM. To calculate articulatory rate, count the number of syllables spoken from 10 randomly selected intervals of the client's talking sample (or as many as you can reliably identify and count). These must be intervals that do not contain stuttering or disfluencies and from which pauses greater than 2 are eliminated. Record the time and the number of syllables uttered separately for each utterance. Next, measure the total amount of taking time produced during these intervals. Put these numbers into the above formula. (Severe stutterers may not exhibit nonstuttered intervals of sufficient number or length to allow calculation of this measure prior to the initiation of treatment).

6. Average duration of nonstuttered intervals

$$\text{average duration of nonstuttered utterance} = \frac{\text{total amount of nonstuttered talking time}}{10}$$

From the measures of 10 nonstuttered intervals collected in 5 above, the total amount of talking time required to produce those 10 nonstuttered intervals has already been calculated. When this number is divided by 10 (or by the number of non-stuttered utterances actually measured if it is different from 10), average duration of the "typical" nonstuttered interval is determined.

7. DURATION OF THE THREE LONGEST NONSTUTTERED INTERVALS

Separately time the duration of what you judge to be the three longest periods of speaking without stuttering that occur in the sample and indicate those times in minutes and seconds on the Stuttering Data Sheet.

8. AVERAGE LENGTH OF NONSTUTTERED INTERVALS

$$\text{average non stuttered utterance duration} = \frac{\text{total amount of nonstuttered syllables}}{10}$$

From the measures of 10 nonstuttered intervals collected in 5 above, the total number of nonstuttered syllables emitted in those utterances is already calculated. When this number is divided by 10 (or by the actual number of utterances measured if different

from 10), the length of the "typical" nonstuttered interval is determined.

9. LENGTH OF THE THREE LONGEST NONSTUTTERED INTERVALS

This measure is based on the same three nonstuttered utterances used in 7 above. For each of these utterances, the longest observed in the sample, count the number of syllables emitted and record these three numbers in the appropriate place on the Stuttering Data Sheet.

10. NATURALNESS RATING

On the Stuttering Data Sheet record your own overall impression of the naturalness of the client's speech throughout the talking sample using a 9 - point scale (1 = highly natural; 9 = highly unnatural). It is also useful to obtain naturalness ratings from lay persons as well, and especially from the client, given that these evaluations are found to be valid and reliable." (Ingham and Costello in Curlee and Perkins, 1984 : 330 - 333).

The Naturalness Rating devised by Ingham and Costello (in Curlee and Perkins, 1984 : 33) was inadequate for this study. Their descriptions such as : 1 = highly natural; 9 = highly unnatural, and the absence of de-

scriptions for scales 2 to 8, warranted a more detailed rating scale. Therefore 'The Naturalness Rating' scale was adapted by the researcher to 'The Severity Rating Scale', which is more comprehensive and precise, and effectively categorises the extent of disfluency. The Severity Rating Scale appears below :

TABLE 4 : SEVERITY RATING SCALE-ADAPTED FROM INGHAM AND COSTELLO

Level	% Stutt. Syllable	Description	No. of Pupils
1	0 - 3,0%	infrequent prolongations, repetitions do not impede communication.	
2	3,1 - 6,0%	noticeable prolongations, repetitions and blocks - occasionally affecting communication and fluency.	
3	6,1 - 9,0%	pronounced repetitions, prolongations and blocks - affect communication, fluency and meaning.	
4	9,1 - 14,0%	frequent blocks, repetitions and prolongations - impede communication.	
5	14,1 - 19,0%	seriously affected - stuttering leads to secondary behaviour characteristics.	
6	19,1 - 24,0%	fluency almost non-existent, stuttering is acute.	
7	24,1 - 34,0%	almost confirmed stutterer.	
8	34,1 - 44,0%	confirmed stutterer - communication virtually impossible.	
9	44,1 + %	confirmed stutterer - communication impossible.	

JUSTIFICATION FOR RATING SCALES :

- The different categories are measurable, and are therefore reliable and objective.
- The rating scale is designed to measure severity and frequency of stuttering (in accordance with the main-problem and subproblems.
- The rating scale is internationally used by practitioners and researchers.

4.7 RESEARCH DESIGN

In arriving at an acceptable research design, this had to provide a 'degree of control and refinement and a greater insurance of both internal and external validity.' (Leedy, 1980 : 169 - 170). Internal validity, according to Leedy, enables the researcher, to ascertain whether the experimental 'treatment' alone made a difference in the experiment. External validity answers the question as to how generalizable the experiment is.

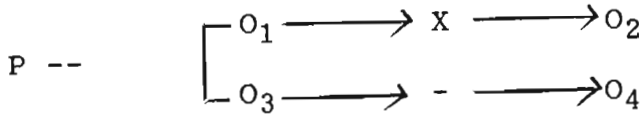
In order to encompass external and internal validity, Leedy's 'Pretest-Posttest Control Group Design has been used for this research. He describes it as follows :

> "The pretest-posttest control group design is, as Mouly remarks, the 'old workhorse of traditional experimentation'. In it, we have the experimental group carefully chosen through appropriate randomization procedures and the control group similarly selected. The experi-

mental group is evaluated, subjected to the experimental variable, and re-evaluated. The control group is isolated from all experimental variable influences and is merely evaluated at the beginning and at the end of the experiment. A more optimal situation can be achieved if the researcher is careful to match the experimental against the control group and vice versa for identical correspondences. Certainly, where matching is effected for the factor that is being studied, the design is hereby greatly strengthened. For example, if we are studying the effect of reading instruction on the IQ level of students, wisdom would dictate that for both control and experimental groups, members of each group should be selected, as nearly as possible, so that a one-to-one correspondence with IQ scores be achieved." (Leedy, 1980 : 170).

Having said the above, it needs to be recalled that the sum total of the experimental and control group stutterers represented the entire population of stutterers prepared to participate in the research, provided that they complied with the criteria for selection, outlined in 4.5.1).

The paradigm for the pretest-posttest control group design is as follows :



The above paradigm was discussed in the summary at the beginning of this dissertation.

4.8 DATA COLLECTION PROCEDURES

4.8.1 PRE-THERAPY AND POST-THERAPY TESTS

Each of the experimental and control group pupils participated in a pre-therapy and identical post-therapy series of tests. These were :

A 5 Minute Reading Excerpt (Appendix B)

Conversation

Monologue (Appendix C)

The reason for using these assessment tools, (herein referred to as 'tests') was because these three aspects of verbal communication are the most common resorted to in everyday life. The subject is required to read in class (all subjects were pupils), converse with teachers and colleagues, and present a point of view on books read, and engage in oral activities, which form an integral part of the learning process. In addition, these three assessment tools form the media for different registers in verbal communication and socialization, and are part

of the oral English testing programme in the junior and secondary schools.

The reading excerpt was described in detail in 4.6.1. The conversation test was extempore, and centred around the stutterer's home, family, hobbies, school-work, future plans, likes and dislikes. The monologue test was discussed in 4.6.2.

4.8.2 ADMINISTRATION

The aforementioned assessment tests were conducted in a room at the Lenarea Secondary School and in the General Activity Rooms of the three libraries mentioned earlier. In Verulam, the Town Hall was used.

The pupil/subject was in the room/hall in the presence of the researcher.

The above three individual tests were conducted in the following order : reading, conversation and monologue. Each pupil was allowed approximately 5 minutes to read through the reading excerpt and monologue questions silently. Thereafter, the tape recorder and video camera were switched on. The actual tests were then conducted. The equipment was switched off after the monologue test. (Analyses of the pre and post-therapy video recordings revealed that pupils were not affected by the presence of the video or tape recorder). The approximate duration of all three tests was 20 minutes per pupil. The pupil left after the test.

Both the pre-therapy and post-therapy tests were audio and video-recorded. This was done so that analyses could be made more easily, using the tape-recorder rather than the video recorder, as constant replay, forward play, rewind, stops and pauses would possibly damage the video cassettes.

4.8.3 CREATIVE DRAMA SESSIONS/CONTROL GROUP SESSIONS

Between the pre-therapy and post-therapy tests, each of the experimental group members participated in 16 weekly creative drama sessions of 1½ hour each. The control group participated in 16 school-related subject lessons, as follows : 14 English lessons, 1 Afrikaans lesson and 1 History lesson. Each weekly session is discussed in the tables below.

The creative drama lessons included learning objectives based on therapeutic models of Heathcote, Feldenkrais, Moreno and Sherborne in the main.

NOTE 1 : The lessons outlined in this study are not intended to be definitive models in the treatment of disfluency in stuttering per se. The outcome of a particular lesson is unpredictable, as is the very nature of creative drama. The lesson develops spontaneously, depending on the stimuli, involvement of both pupil and facilitator, register (as propounded by Heathcote), content and form. No two lessons will be identical. It will be naive to therefore say that a lesson

can be reproduced with identical outcome. However, similar goals may be achieved.

In order not to present creative drama activities in a purely functional or descriptive form, the majority of sessions have been designed along a conceptual framework, based on or adapted from similar models, discussed in chapter 2. In so doing, it is hoped that the relationship between features of stuttering and drama will become clearer. Attempts at discussing this relationship were made in Chapter 3.

4.8.3.1 CREATIVE DRAMA SESSIONS

Each of the above sessions appears in table form.

TABLE 5 : SESSION 1 : CREATIVE DRAMA ACTIVITIES

Adapted from : Veronica Sherborne's exercises : O'Neill et al (1976 : 53) and Heathcote's concept of 'Register'. (Wagner, 1976 : 38).
Objective : The subject should be able to acquire greater physical and mental control through relaxation exercises and movement.
Independent Variable : Relaxation
Activities : 1. Subjects formed a circle and sat on the floor, with feet stretched forwards and their hands on the floor. Feet and hands were stretched in order to increase muscular tension. To the background of soft, pleasant music, the subjects were guided to relax gradually, letting go of tension until the subjects were in a sitting position without any unnecessary tension. They were then guided to stand slowly, feeling their muscles relax. 2. Subjects sat comfortably on the floor, and gradually lay down on their backs. They then held their breath while tensing the muscles of the body part named. They then exhaled with a long, loud sigh, simultaneously relaxing muscles. This process was repeated three times. 3. The following stimuli were presented : (a). 'Imagine that you are a kitten settling down to a short nap in front of a fire. Stretch out your paws, flex your limbs, curl your body, let your body sink into the floor to enjoy a short nap.' After two minutes, mother cat (the leader) gently got the kittens up. The subjects were asked to give a verbal response to their feelings immediately after the exercise. (b). 'You are a tree, your feet are the roots, your legs are the trunks, your arms are the branches, your hair are fingers,and your eye-lashes are the leaves. There is a gentle breeze;it gradually gains speed and becomes stronger; the branches and leaves are being blown widely; the wind gradually subsides, it gets gentle and soon stops.'

TABLE 6 : SESSION 2 : CREATIVE DRAMA ACTIVITIES

Adapted from : Veronica Sherborne (as for Session 1)

Objective : As for session 1

Independent Variable : body awareness and relaxation

Activities :

1. Each subject was given a feather and was asked to concentrate on what would happen if the feather was blown. The subjects blew their feathers and observed the phenomenon. Subjects were then required to portray a feather being blown and then alighting somewhere in the room. After the whole group performed as indivdiuals, but simultaneously, the group was divided into groups of four or five. The group had to imagine that they were now one large feather, and that the feather was being blown, and would gradually come to rest. The groups got together, decided upon a sequence on their own, and after four minutes, each group performed its feather-float.

2. Subjects worked in pairs. One pupil imagined lying on a warm, sandy beach, completely relaxed, facing up, with eyes closed, and arms and legs out-stretched, sinking into the ground. The partner lying down, had to keep the muscules and body free of tension. The standing partner had to ascertain whether the other was relaxed, by lifting the colleague's arms, hands, legs, and head gently. Roles were reversed.

3. Each group of four or five worked towards the formation of a statue. One subject was detached from the group to give the statue a name. The statue formation began by individual pupils running towards a central point, and freezing into any spontaneous body position. The detached group examined the statue and gave it a name. The process was repeated, with body positions which resembled a machine - like structure.

4. The groups broke up and there was a ten-minute discussion on their thoughts, feelings, emotions and experiences. Pupils suggested exercises/actions that they could do outside the room, to re-live some of the moods, feelings and experiences. Suggestions were made as to how such feelings could characterize their daily actions.

TABLE 7 : SESSION 3 : CREATIVE DRAMA ACTIVITIES

Adapted from : Heathcote's model of 'Register'.

Independent Variable : Physical stimulation of emotion

Objective : The subject should be able to overcome inhibitions in a group, develop a sense of self-confidence and react spontaneously to stimulation

Activities :

1. The class was divided into groups of three. The activity was outlined to all the groups. Tension and relaxation had to be used to make the changes described by the leader.
   The transitions were :
   - Ice to tiny droplets of water trickling down.
   - Moving tractor becomes jerky and switches off.
   - Soft snow to a snowman - to be made by others in group.
   - A dish-cloth in the washing machine, to the clothes-line.
   - A piece of apple being chewed.
   - A healthy plant wilting in the heat - soon dies.

2. Breaking Down the Group Session : Each group of three was given a stick and a drum. The members of the groups had to portray their intense anger and frustration at one of their colleagues. Pupils, were not allowed to touch each other. The sticks and drums could be used to vent their feelings. Initially, all the groups worked simultaneously, after which each group did its piece individually.

   Others observed and made comments at the end of the session.

TABLE 8 : SESSION 4: CREATIVE DRAMA ACTIVITIES

Adapted from : Feldenkrais's theory of movement as a method of correction

Independent Variable : Movement

Objective : The pupil should be able to explore mood sequences and the effect on sensation, feeling, thought, mood and action

Activities :

1. The group sat around on the floor, in a circle. A discussion on peoples' moods ensued. Pupils attempted to give their views on moods, and their reasons for any mood preferences. The following moods were discussed in detail, and were agreed upon for the exercise outlined below : calmness, hatred, anger, fear, rebelliousness, love, joy and revenge. The class was divided into groups of three. Each group was required to devise a sequence using mimetic movements, sound and words which would depict their different moods. After a brief discussion, each group attempted to improvise their sequence. The leader acted as guide and supervisor, assisting each group to develop its ideas. After 10 minutes, each group presented its mood sequence.

2. The Supermarket : To continue the idea of the mood sequence, the following stimulus was presented to each of the groups :

   "You are a customer in a large supermarket. You have been treated very shabbily by one of the assistants. You become enraged. You demand to see the manager'.

   The group was allowed ten minutes to discuss their ideas, organise their thoughts, and rehearse their improvisations. As an incentive, pupils were told that they would be given an assessment of A+, A, B+, B etc. after the final presentation.

TABLE 9 : SESSION 5 : CREATIVE DRAMA ACTIVITIES

Adapted from : Heathcote's concept of socialization and Moreno's Symbolic Technique.

Independent Variable : empathy, symbolism

Objective : The pupil should be able to empathise with an imagined character through social-interaction and mutual support.

Activities :

1. The class was divided into groups of three or four. Each group was presented the following stimulus:
   'Raj, a ten-year old, lives in an orphanage. It is Christmas Eve. The matron tells one of the boys that his foster-parents are going to take him home for Christmas. Raj is excited at the thought of going home too, and enquires when his parents will be arriving. Hesitantly, the matron tells him that they will fetch him the next morning. Raj is delighted. Do his parents arrive?
   Continue the improvisation.

2. Each group was allowed about fifteen minutes for discussion and rehearsal, after which items were presented.

TABLE 10 : SESSION 6 : CREATIVE DRAMA ACTIVITIES:

Adapted from : Feldenkrais's concept of sensation, feeling, thought and movement as components of the waking state.

Independent Variable : Sensation

Objective : The pupil should be able to explore movement qualities in the interaction with others, and the effect of such qualities.

Activities :

1. Pupils were divided into groups of three or four. Each group had to respond spontaneously to the following stimuli :
   - You are a stone in the sea. Each wave throws you out of the sea and then draws you in again.
   - The group members are parts of an old, jerky car that moves slowly down the road. It stops, is given a push and takes off again. It soon comes to an abrupt halt.
   - a stick of dynamite / a dynamite charge explodes. Debris is strewn about on different levels and in different places.

cont/.....

2. Pupils remained in the groups as in 1 above. The following stimulus was presented to the groups :

> You are in an over-packed lift going up to the tenth floor. There is a power-failure. The lift halts between the ninth and tenth floors. What happens?

TABLE 11 : SESSION 7 : CREATIVE DRAMA ACTIVITIES

Adapted from : Feldenkrais's method of human correction.

Independent Variable : Confidence

Objective : The pupil should be able to gain confidence through role-play.

Activities :

1. Now that pupils were relatively free and socially adjusted within the group and with the leader, it was felt that pupils would respond more freely to an 'imposed medium' such as masks,

2. Each pupil was provided with a basic mask shape, with eyes, ears, mouth, and nose already created. However, knowing the children's potential by this stage, and their enthusiasm level, it was felt that the pupils should be integrated into the mask-creation stage as well. Items such as prestik, glue, felt pens, crayons, feathers, pieces of cloth and beards were provided. Half-an-hour was allowed for the making of the mask. Since the pupils were at senior primary and secondary schools, little guidance had to be provided. The leader emphasized a variety of characters, allowing pupils to experiment with animal, human and fantasy characters.

3. Once completed, pupils were allowed about three minutes to talk about the mask, and portray the character of the masks, using speech, movement and action.

4. Pupils were divided into groups of three or four, and were free to create an improvised scene using the masks of the group.

5. During the discussion phase, it became evident that pupils were thinking symbolically and not merely on the literal level.

TABLE 12 : SESSION 8 : CREATIVE DRAMA ACTIVITIES

Adapted from : Burniston's Verbal Dynamics, Moreno's Symbolic Technique and Heathcote's 'Mantle of Expert'.

Independent Variables : Verbal dynamics, symbolism

Objective : The pupil should be able to verbalize emotional and mental responses and endeavour to solve social problems, rather than escape from them.

Activities :

1. Pupils sat in a circle on the floor. The following stimulus was presented to the group: 'Just now, you will be divided into groups of three or four. Your theme is 'water'. Let us think about all the possible forms that water can take, its sounds and movement.'

2. Symbolic Technique :
   The following stimulus was presented to each of the groups (mentioned in the above exercise) : A friend feels depressed, frustrated and lonely because of some personal problem, which has resulted in a withdrawal syndrome with deep-rooted fears. Your friend is on the verge of suicide. You are the only knowledgeable person who can help. Devise a sequence in which you try to help your friend.

TABLE 13 : SESSION 9 : CREATIVE DRAMA ACTIVITIES

Adapted from : Heathcote's 'Mantle of the Expert'.

Independent Variable : empathy, expert view-points.

Objective : The pupil should be able to empathize with real-life characters and situations, and find solutions to problems affecting the community.

Activities :

1. The class was divided into groups of either four or five pupils. Pupils were given the following verbal stimuli : alcohol, child welfare and social worker. Groups were free to use the stimuli in any way.

TABLE 14 : SESSION 10 : CREATIVE DRAMA ACTIVITIES

Adapted from : Moreno's 'Dream Technique'

Independent Variable : imagination and symbolism

Objective : The pupil should be able to use the dream technique to acquire confidence.

Activities :

1. Pupils lay down on the floor. In a soothing voice, the leader related the following :
   'Imagine that you are the best story-teller. You are telling a class of infants the most exciting story, for after a few minutes, you have to tell us your story.'

2. Two pupils were asked to tell their stories to the class, imagining that we were their pupils, and that they were the teachers seen in the dream.

3. After every two stories, the other pupils went back into their dreams for two minutes, so that they could get back into the mood of their stories. Pupils had to be ready, for they were not told who would be called next. The entire session lasted about one-and-half hours.

TABLE 15 : SESSION 11 : CREATIVE DRAMA ACTIVITIES

Adapted from : Moreno's 'Auxiliary Technique'

Independent Variable : socialization

Objective : The pupil should be able to respond spontaneously and fluently to comments, questions and discussion in a variety of social situations.

Activities :

1. Items required for this session were chunks of plasticine, newspaper and prestik.

2. Pupils were seated opposite each other in pairs, in view of the leader. The leader explained that the objects could be manipulated into different forms and shapes. This process was then executed individually with each item. Pupils were prompted to discuss their shapes with friends or with the leader. Attention was focused on talking aloud. Each pair was given one of the items. After two minutes play and discussion, objects were passed around, and so the process continued.

3. It was felt that an external stimulus such as a puppet would initiate more spontaneous verbal responses because of the novel approach, the element of humour and that the pupils would be criticising an inaminate object without fear of retribution.
Two glove puppets, Balu and Bala, were used in a short improvised scene. Two pupils of the class, Asha and Suvir played the parts of Balu and Bala respectively. Both pupils retreated to a back room so that the procedure could be explained to them.

The scene began with Bala asking Balu, 'What are you doing tonight?' to which Balu replied, 'I'm .... uh ... going to .... my friend's ..... oh .... er ..... er .... mmmm .. at the . th .... th ... the .... local .... b ... b ... b --- bottle ..... s ..... st ... store.' The speakers tried to develop the scene further to a logical conclusion.

The rest of the group was required to identify the puppets' flaws in speech and reasoning, and make suggestions and recommendations for improvement. Pupils could also demonstrate correct breathing techniques and sound formation if they so desired.

TABLE 16 : SESSION 12 : CREATIVE DRAMA ACTIVITIES

Adapted from : Burniston's 'Verbal Dynamics'

Independent Variable : creative sensory perception

Objective : The pupil should be able to express sensory perception through speech and language.

Activities :

1. Items required for this sessions were : a tape-recorder, musical cassettes, a drum, tambourine, chalk-board, chalk and some writing materials.

2. The procedure for this session was outlined to pupils. Pupils were to jot down feelings, moods, thoughts and ideas that went through their minds as they listened to the sounds around them. Pupils could either lie down or sit on the floor.

3. Each of the following sounds was played/created for two minutes, after which there was a discussion interval of three minutes : A tape-recording of animal sounds in a jungle was played. Sounds included birds chirping, lions roaring, owls hooting, intermingled with sounds of crickets, and war cries of despair and anguish.

   A tribal drum was beaten to the repetitive measured sound of a tambourine, creating the atmosphere of an African village.

   The end of a piece of chalk was scraped on the chalk-board, creating a sharp, piercing and irritating sound.

   The leader, using his voice, created the painful cry of a stricken cat. Volume was varied to heighten impact and dramatic effect. Long pauses created the feeling of suspense and anguish.

TABLE 17 : SESSION 13 : CREATIVE DRAMA ACTIVITIES

Adapted from : Heathcote's use of drama as a social tool.

Independent Variable : improvisation

Objective : The pupil should be able to reach solutions through group consensus, and acceptable public opinions.

Activities :

1. Creative drama was based on the story of 'The Mayor of Casterbridge'. The class was divided into groups of four or five pupils. The leader provided the stimulus by telling the class the following : 'Henchard, a drunkard sells his wife, Mary, and child at a fair so that he can satisfy his craving for drink. The sailor who bought the wife and child dies after taking them to his home-town. Mary and her child, after much difficulty, and after about two years, arrive at Casterbridge, of which the changed Henchard is now the mayor. Whilst he is addressing an audience one evening, Mary and her son, starved and poverty-stricken, arrive at the door.' What happens? Does Henchard take them back? Does he have any regrets? Why?

2. During the discussion and rehearsal phase the leader walked around, listening in casually to ideas, answering questions if necessary, without actively supervising the groups to any great extent. This was done to allow for maximum participation by group members, and that their effort should be original, more especially because no pupil had read the novel before.

3. After about fifteen minutes, each group presented its creative drama piece.

TABLE 18 : SESSION 14 : CREATIVE DRAMA ACTIVITIES

Adapted from : Moreno's Multiple Double Technique

Independent Variable : Self-analysis

Objective : The pupil should be able to critically evaluate the past and present situations, and project into the future with a view to self-improvement.

Activities :

1. The class was divided into groups of three. The leader outlined the scenario to the groups. Each group was asked to concentrate on one person's life, in terms of the past, present and future. Of the three characters, one would represent the past, the other the present, and the third was to depict the future. Pupils were told that each character could depict or talk about personal experiences. The time difference between the present and past, and the present and future, should be about five to ten years. No mention was made of stuttering, speech defects or personality related problems.

   The discussion and rehearsal phase was followed by the improvisation.

TABLE 19 : SESSION 15 : CREATIVE DRAMA ACTIVITIES

Adapted from: Heathcote's model 'Leader in Role'.

Independent Variable : Participation in Stage Production (Improvisation)

Objective : The pupil should be able to improve social adaptability and competence amongst a group of strangers

Activities :

1. The West End Academy of Speech and Drama, of which the researcher is Professional Advisor, held improvisational drama sessions for its pupils at its different centres. The actors, experts at children's theatre, dramatized stories, using pupils to tell the stories. 'Stutterers' attending the creative drama classes were invited to attend the sessions in their areas. The response to the invitation was outstanding, the main reason being that pupils had not been exposed to such group sessions previously, and that the actors were professionals, having appeared on radio and television.

   During the stories pupils were invited to participate.

TABLE 20 : SESSION 16 : CREATIVE DRAMA ACTIVITIES

Adapted from : Heathcote's 'Mantle of the Expert' and Feldenkrais's self-image theory'.

Independent variable : Self-image

Objective : One should be able to evaluate one's position amongst one's peers and as a human being, thereby improving one's self-esteem.

Activities :
The following talking points were presented to the pupils, who were seated on the floor, in a circular formation :

a. Imagine that you are given the choice of being born either as an animal (without speech) and that you are destined for the zoo), or that you are a human being with just one defect or disorder. Which would you choose? Why?

b. A friend is on the verge of suicide because of some physical handicap. Convince your friend that there is more to life than suicide.

Pupils were given ten minutes to think about each of the above and were free to jot down their points for discussion. They were then given a chance to put forward their views individually.

3.5.3.2 NON- CREATIVE DRAMA SESSIONS (SCHOOL RELATED SUBJECTS)

TABLE 21 : SESSION 1 : SCHOOL RELATED SESSIONS

Topic : Language : Punctuation

Objective : The pupil should be able to use the following punctuation marks : capital letters, full stops, question mark, inverted commas and commas.

Activities :
- explanation of each punctuation mark by 'teacher'.
- 6 examples on each done orally
- written exercise
- marking of exercise - pupils provided answers
- correction by pupils

TABLE 22 : SESSION 2 : SCHOOL RELATED SESSIONS

Topic : Poetry - Sea Fever : John Masefield

Objective : The pupil should be able to discuss sense, feeling, intention and themes.

Activities :
- reading by teacher and pupils.
- discussion on each of concepts - pupils' views
- 4 questions
- discussion on answers

TABLE 23 : SESSION 3 : SCHOOL RELATED SESSIONS

Topic : Comprehension : Art of English 2

Objective : The pupil should be able to answer questions, and explain the sense of the passage.

Activities :
- reading of passage : pupils
- **pupils discussed sense**
- **pupils attempted questions in writing**
- **discussion on answers**

TABLE 24 : SESSION 4 : SCHOOL RELATED SESSIONS

Topic : Language : Direct and Indirect Speech.

Objective : The pupil should be able to write from direct to indirect speech, and effect changes of tense, place and time.

Activities :
- 'teacher' discussed changes in tense, time, place when writing into indirect speech.
- examples done verbally
- pupils attempted exercise
- **pupils provided answers**
- correction

TABLE 25 : SESSION 5 : SCHOOL RELATED SESSIONS

Topic : Poetry : Bishop Hatto - Robert Southey from 'Tellers of Tales'. Objective : As for session 2 Activities: As for session 2

TABLE 26 : SESSION 6 : SCHOOL RELATED SESSIONS

Topic : Creative Writing : Winter Objective : The pupil should be able to give expression to thoughts, feelings and emotions through the written word. Activities : - buzz session on 'Winter'. - pupils planned - peer-group evaluation ensued - pupils entered efforts.

TABLE 27 : SESSION 7 : SCHOOL RELATED SESSIONS

Topic : Creative Writing : Discussion Objective : The pupil should be able to improve the written responses emanating from thoughts, feeling and emotions. Activities : - 'teacher' discussed each pupil's efforts individually with pupils. - pupils attempted to correct their grammar/expression.

TABLE 28 : SESSION 8 : SCHOOL RELATED SESSIONS

Topic : Vocabulary Extension

Objective : The pupil should be able to increase vocabulary and word power.

Activities :
- pupils given a crossword, dictionary by 'teacher'.
- half-hour allowed for completion
- discussion on answers
- correction

TABLE 29 : SESSION 9 : SCHOOL RELATED SESSIONS

Topic : Vocabulary Extension : Examination Terminology

Objective : The pupil should be able to use/analyse examiner's terminologies.

Activities :
- common examiner's terminologies discussed.
- 6 questions given to pupils
- pupils analysed questions
- discussion on above

TABLE 30 : SESSION 10 : SCHOOL RELATED SESSIONS

Topic : Language : Active and Passive Voice

Objective : The pupil should be able to effect changes in tense, time, person and place when writing in the passive voice.

Activities :
- changes discussed by 'teacher'.
- 6 sentences done verbally by pupils
- written attempt
- correction - pupils provided answers

TABLE 31 : SESSION 11 : SCHOOL RELATED SESSIONS

Topic : Language : Ambiguity

Objective : The pupil should be able to identify ambiguous sentences, and provide reasons for such ambiguity.

Activities :
- Explanation of concept by 'teacher' using 3 sentences.
- 6 examples
- written exercise
- pupils provided answers
- discussion and correction

TABLE 32 : SESSION 12 : SCHOOL RELATED SESSIONS

Topic : Language : Use of Apostrophe

Objective : The pupil should be able to use the apostrophe to show possession and denote missing letters.

Activities :
- rules of apostrophe explained, using examples.
- 10 examples done in class, orally.
- exercise
- pupils provided answers - correction

TABLE 33 : SESSION 13 : SCHOOL RELATED SESSIONS

Topic : Unseen Poetry : Out, Out - R. Frost

Objective : The pupil should be able to analyse the poem and answer questions on it, appropriate to the pupils' level.

Activities :
- 5 literal-level questions given to class.
- pupils answered questions in writing.
- discussion on answers.
- pupils corrected work.

TABLE 34 : SESSION 14 : SCHOOL RELATED SESSIONS

Topic : History of Indians in Natal

Objective : The pupil should be able to discuss some of the historical factors of Indians in Natal.

Activities :
- 'teacher' ascertained knoweledge of subject from pupils.
- 'teacher' explained : arrival, working on sugar fields, settlement, and progress.
- home work : additional reading.

TABLE 35 : SESSION 15 : SCHOOL RELATED SESSIONS

Topic : History of Indians in Natal

Objective : As for session 14.

Activities :
- pupils presented new details on subject
- discussion on above.
- discussion on role of Indians in education, business, industry, health and science - Pupils participated.

TABLE 36 : SESSION 16 - SCHOOL RELATED SESSIONS

Topic : Afrikaans : Use of Verbs

Objective : The pupil should be able to change the tense of verbs into the past, present and future.

Activities :
- common verbs discussed, changes made when writing in present, past and future.
- 6 examples done orally
- pupils attempted exercise
- pupils discussed answers
- correction

4.9 DATA INTERPRETATION PROCEDURES (EXPERIMENTAL AND CONTROL)

After the post-therapy test, raw scores of the following were obtained for both pre-therapy and post-therapy tests :

- percentage stuttered syllables
- differences in the duration of the longest moment of stutter,
- average length of non-stuttered intervals
- average duration of stuttering

The raw scores were obtained by using the equations outlined in 4.6.5. Each of the above categories related to the subproblems, which eventually encompassed the main problem. Raw scores were then analysed, and the standard deviations and differences were calculated. Data of each of the subproblems is presented, and a comparative analysis is made of the pre-therapy and post-therapy results.

Thereafter group data relating to each of the sub-problems is analysed on a comparative basis. Each of the tests, namely reading, conversation and monologue, is also analysed on a comparative basis, in each case, considering the subproblems and the pre-therapy and post-therapy tests. Salient features are identified and discussed critically. At each point, reference is made to the acceptance or rejection of the hypothesis, until all the parameters of the subproblems and the main problem are covered.

In the 'Discussion of Results', attempts have been made to provide qualitative analyses of interesting individual features, and reasons for such features. Explanations are presented for differences and similarities, and why subjects responded as they did, based on the empirical data of the research.

CHAPTER 5

PRESENTATION AND DESCRIPTION OF RESULTS

This chapter contains analysed and interpreted group data in relation to each of the subproblems. Raw scores do not appear in this chapter, but are found in Appendices F_1 to H_2. The number of subjects in the experimental and control groups remain constant for all the comparative data in the ensuing tables. After the visual presentation, the salient features are identified, and the statistical data are used to answer each of the questions posed in the subproblems.

For coherence and logicality results are systematically presented and described under the following sub-headings : Quantitative Results and Qualitative Results.

5.1 QUANTITATIVE RESULTS

5.1.1 THE FIRST SUBPROBLEM : A COMPARISON OF THE DIFFERENCE IN PERCENTAGE STUTTERED SYLLABLES BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES.

TABLE 37a : THE PERCENTAGE STUTTERED SYLLABLES OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	12,9	8,8	17,2	8,0	16,2	7,6
POST-THERAPY	2,4	3,0	3,9	3,9	3,8	4,3
DIFF.	10,5	5,8	13,3	4,1	12,,4	3,3

TABLE 37b : THE PERCENTAGE STUTTERED SYLLABLES OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	18,2	16,2	18,6	20,2	13,3	7,0
POST-THERAPY	18,3	17,8	16,6	13,0	14,3	9,2
DIFF.	0,1	1,6	2,0	7,2	1,0	2,2

DESCRIPTION IN TERMS OF SIGNIFICANCE :

Results of Table 37a indicate that there was a significant reduction in the percentage stuttering of the experimental group in the post-therapy test. The conversation test yielded the greatest overall improvement. In addition, the differences in the mean of the three tests, namely reading, conversation and monologue, range from 10,5% to 13,3%.

The data in the control group table (table 37b), reveal a completely different picture. The mean has increased in the reading and monologue tests, while the decrease in percentage stuttering in the conversation test is 2,0%. A comparison of the conversation scores of the experimental and control groups indicates that the conversation test yielded the greatest reduction in percentage stuttered syllables in both groups.

The measures of dispersion (the standard deviation) in the experimental group indicate that there is a consistency in the range of individual performances. This situation is however, not evident in the control group. The range of the standard deviation in the control group pre-therapy tests is from 7,0 to 20,2 while the corresponding range for the experimental group is from 9,2 to 17,8. In terms of group data, there is an inconsistency in the control group, in that there is an erratic spread of percentage stuttered syllables. A significant degree of heterogeneity is evident in the control. Further, the standard deviations of the monologue tests indicate a more realistic range of dispersion, than of the other two tests.

The average overall improvement of the experimental group is 12% while that of the control group is 0,3%, which clearly implies that the post-therapy results of this group were due to the intervention of the creative drama activities.

VALIDITY IN TERMS OF THE ABOVE SUBPROBLEM

A comparative analysis of the pre and post-therapy results of the experimental group reveal significant differences in percentage stuttering. The corresponding data of the control group do not reveal significant differences. This difference in results between the two groups was attributed to the creative drama activities.

The results in relation to the first subprolbem indicate that the frequency of stuttering was reduced in the experimental group to a significant extent, thereby providing justification for a positive response to the question posed as the first sub-problem.

5.1.2 THE SECOND SUBPROBLEM : A COMPARISON OF THE DIFFERENCE IN AVERAGE DURATION OF STUTTERING BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES.

TABLE 38a : THE AVERAGE DURATION OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	2,5	1,2	2,5	1,5	2,3	2,0
POST-THERAPY	1,6	1,3	1,0	0,7	1,3	1,2
DIFF.	0,9	0,1	1,5	0,8	1,0	0,8

TABLE 38b : THE AVERAGE DURATION OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	2,2	1,3	1,8	1,7	3,1	4,7
POST-THERAPY	4,3	7,8	3,2	5,0	3,3	6,0
DIFF.	2,1	6,5	1,4	3,3	0,2	1,3

DESCRIPTION IN TERMS OF SIGNIFICANCE

The differences in mean of each of the experimental group tests indicate that all post-tests were characterized by a decrease in the average duration of stuttering, with the greatest decrease being in the conversation test. The overall decrease in the duration of stuttering in the experimental group was 1,1 seconds.

An analysis of the control group's data indicates that there was actually an increase in the average duration of stuttering in each of the post-therapy tests, with the greatest increase in the reading test. The overall increase in the average duration of the control group was 1,2 seconds.

A comparative analysis of the overall means of both groups indicates that while the experimental group was characterized by a reduction of 1,1 seconds, the control

group had an increase of 1,2 seconds in average duration of stuttering.

The dispersion in the experimental group was consistent in the pre and post-therapy tests, which indicates that there was greater heterogeneity in the post-test.

VALIDITY IN TERMS OF THE ABOVE SUBPROBLEM

The data of the foregoing tables indicate that the experimental group reduced its average duration of stuttering by 1,1 seconds and the control group increased its average duration by 1,2 seconds. These data provide justification for a positive response to the question posed in the second subproblem. It may therefore be concluded that creative drama activities contributed towards the reduction of the average duration of stuttering.

5.1.3 THE THIRD SUBPROBLEM : A COMPARISON OF THE DURATION OF THE LONGEST STUTTERING MOMENT BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES.

TABLE 39a : THE DURATION OF THE LONGEST STUTTERING MOMENT OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	5,1	2,4	5,2	3,7	4,2	2,7
POST-THERAPY	2,0	2,0	1,5	1,4	2,1	2,2
DIFF.	3,1	0,4	3,7	2,3	2,1	0,5

TABLE 39b : THE DURATION OF THE LONGEST STUTTERING MOMENT OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	3,3	2,3	3,1	4,4	6,3	12,0
POST-THERAPY	4,3	7,8	7,1	14,3	4,9	8,0
DIFF.	1,0	5,5	4,0	9,9	1,4	4,0

DESCRIPTION IN TERMS OF SIGNIFICANCE

The most significant decrease in the duration of the longest stuttering moment was in the experimental group's conversation post-therapy test. The means for the pre-therapy and post-therapy tests were 5,2 seconds and 1,5 seconds respectively, yielding a difference in mean of 3,7

seconds. The overall average for all three tests in the sample group was 2,9 seconds.'

The data of the control group indicate that there was an increase in the duration of the longest stuttering moment in the reading and conversation post-therapy tests, while the reduction in the monologue test was 1,4 seconds. Further, there was an increase by 4,0 seconds in the duration of the longest stuttering moment in the post-therapy conversation test.

A comparative analysis of the overall means of the two groups reveals that the experimental group reduced its longest stuttered duration by 9,1 seconds, while the control group increased its longest stuttered duration by 3,8 seconds.

The standard deviations of the two groups again indicate that the individual results of the control group, especially in the monologue test (pre-therapy) and all three of the post-therapy tests had a significant degree of heterogeneity.

VALIDITY IN TERMS OF THE ABOVE SUBPROBLEM

An analysis of the data of the above tables indicates that the experimental group reduced its duration of the longest stuttering moment by 2,9 seconds while the control group increased its duration by 1,2 seconds. This is again justification that 'creative drama

activities contributed towards the reduction in the duration of the longest stuttering moment of the experimental group.

5.1.4 THE FOURTH SUBPROBLEM : A COMPARISON OF THE AVERAGE DURATION OF NON-STUTTERED INTERVALS BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES.

TABLE 40a : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	6,1	4,4	2.6	1,6	2,8	1,7
POST-THERAPY	39,4	30,1	8,8	11,1	7,4	4,2
DIFF.	33,3	25,7	6,2	9,5	4,5	2,5

TABLE 40b : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES

	READING		CONV.		MONOLOG.	
	MEAN	STD DEV.	MEAN	STD DEV.	MEAN	STD DEV.
PRE-THERAPY	5,6	7,6	5,2	7,6	5,0	7,7
POST-THERAPY	5,8	2,9	2,5	2,8	2,1	2,0
DIFF.	0,2	4,7	2,7	4,8	2,9	5,7

DESCRIPTION IN TERMS OF SIGNIFICANCE

In the experimental group, the average duration of non-stuttered intervals increased by 33,3 6,2 and 4,6 seconds in the reading, conversation and monologue post-therapy tests respectively, with an overall average of 14,7 seconds.

The control group, however, showed an increase only in the reading post-therapy test (0,2 seconds) while the conversation and monologue tests had a reduction of 2,7 and 2,9 seconds respectively in the duration of non-stuttered intervals. The overall decrease in the control group was 1,7 seconds.

The dispersion in the reading, post-therapy test of the control group was extensive, while those of the other tests of both groups revealed a reasonable degree of concurrence.

VALIDITY IN TERMS OF THE ABOVE SUBPROBLEM

The duration of the non-stuttered interval is representative of severity of stuttering. The experimental group's increase of 14,7 seconds, as opposed to the control group's decrease of 1,7 seconds in the average duration of non-stuttered intervals, can be attributed to the effect of creative drama on the average duration of non-stuttered intervals - the fourth subproblem.

5.2 QUALITATIVE RESULTS

In this discussion, a brief statement of findings in relation to each of the subproblems will be made. This will include typical and atypical data, degrees of significance, heterogeneity or homogeneity within groups (both experimental and control).

5.2.1 THE FIRST SUBPROBLEM : THE DIFFERENCE IN PERCENTAGE STUTTERED SYLLABLES BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

The quantitative results in relation to the first subproblem presented in 5.1, indicate that the experimental group reduced its overall percentage stuttering by 12,4%, while that of the control group was 0,3%. The significant reduction in percentage stuttering in the experimental group, after creative drama activities indicates that the degree of fluency was greatly improved. In fact the post-therapy average percentage stuttering was 3,0% as opposed to the pre-therapy average of 15,4%.

5.2.1.1 READING

TABLE 41a : % STUTTERED SYLLABLES OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - READING

PUPIL NO.	1	2	3	4	5	7	8	10	11
PRE-THERAPY	9,7	18,2	11,5	11,6	6,4	37,8	27,6	16,8	10,0
POST-THERAPY	0,2	0	0,5	0,7	0,4	0,2	0,6	1,2	3,3
DIFF.	9,5	18,2	11,0	10,9	6,0	37,6	27,0	15,6	6,7
PUPIL NO.	16	19	20	22	25	26	28	30	31
PRE-THERAPY	16,4	12,9	8,0	19,6	10,4	4,6	6,8	29,6	8,5
POST-THERAPY	2,4	0,8	1,3	4,0	1,1	0,3	0,6	7,7	0
DIFF.	14,0	12,1	6,7	15,6	9,3	4,3	6,2	21,9	8,5
PUPIL NO.	33	34	35	36	37	38	39	40	41
PRE-THERAPY	10,4	8,4	23,0	31,0	14,6	21,1	8,9	20,1	9,3
POST-THERAPY	0,4	0	6,8	3,8	4,3	1,5	0,2	0,7	4,0
DIFF.	10,0	8,4	16,2	27,2	10,3	19,6	8,7	19,4	5,3
PUPIL NO.	42	43	44	45	47	49	50	51	
PRE-THERAPY	26,6	3,3	20,7	12,0	11,4	37,3	22,0	19,1	
POST-THERAPY	9,2	1,5	1,5	0,5	1,7	12,9	6,7	3,8	
DIFF.	17,4	1,8	19,2	11,5	9,7	24,4	15,3	15,3	

Three pupils did not stutter at all in the post-therapy test, while 13 pupils have a stutter of between 0,1% and 1,0%. Percentage differences of the two tests range from 1,8 to 27,2%, which imply that the pre-therapy scores were significantly higher. The following pupils obtained the highest percentage differences : numbers

7-37,6%; 36-27,2%; 8-27,0%; 30-21,9% and 38-19,6%. The lowest differences were produced by the following pupils: 43-1,8%; 26-4,3%; 41-5,3%; 5-6,0% and 11-6,7%.

The average post-therapy percentage stutter in reading for the group was 2,4%, as opposed to the pre-therapy average of 15,9%. The reduced post-therapy percentage effectively reduced stuttering by 13,5%. This is a notable achievement for the group.

Performance in reading can become more difficult when expectancy anxiety about particular sounds or words prevails. This was the case in the pre-therapy test. However, in the post-therapy test, the reduced level of anxiety, enabled the pupil to reduce word or syllable stress.

TABLE 41b : % STUTTERED SYLLABLES OF CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - READING

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	20,8	69,2	15,6	18,1	24,6	8,9	5,7	2,9	10,4	17,4	15,9	9,3
Post-Therapy	16,8	75,0	15,4	26,4	9,7	13,3	11,6	3,3	9,2	17,3	13,6	8,1
Diff.	4,0	5,8	0,2	8,3	14,9	4,4	5,9	0,4	1,2	0,1	2,3	1,2

It is evident that the percentage stuttering of the control group increased in the case of 5 pupils, and decreased very insignificantly, in the reading post-therapy test. Pupil number 9 showed a marked decrease

of 14,9% in the post-therapy test. However, when this is compared with the conversation test, it is found that the subject actually increased in percentage stutter by 7,1%. The overall decrease in all three tests was 2,8%. This pupil's erratic performance may be attributed to various factors, one of which may be a flair for reading, instead of conversation and monologue, in which there is personal interaction with someone else.

5.2.1.2 CONVERSATION

TABLE 42a : % STUTTERED SYLLABLES OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - CONVERSATION.

PUPIL NO.	1	2	3	4	5	7	8	10	11
PRE-THERAPY	13,4	15,7	21,0	6,8	3,9	26,7	21,0	14,0	21,5
POST-THERAPY	0	0,8	1,3	2,8	0	2,8	2,9	4,4	2,0
DIFF.	13,4	14,9	19,7	4,0	3,9	23,9	18,1	9,6	19,5
PUPIL NO.	16	19	20	22	25	26	28	30	31
PRE-THERAPY	13,6	14,4	16,0	19,0	18,0	8,7	23	12,0	7,3
POST-THERAPY	1,6	3,0	0	1,0	6,9	1,7	134	5,2	0
DIFF.	12,0	11,4	16,0	18,0	11,1	7,0	111	6,8	7,3
PUPIL NO.	33	34	35	36	37	38	39	40	41
PRE-THERAPY	15,2	15,2	32,2	30,2	18,2	14,0	13,0	20,6	12,0
POST-THERAPY	1,1	0	12,6	6,9	6,2	3,1	1,0	6,2	1,0
DIFF.	14,1	15,2	19,6	23,3	12,0	10,9	12,0	14,4	11,0
PUPIL NO.	42	43	44	45	47	49	50	51	
PRE-THERAPY	17,4	10,4	6,0	8,0	22,6	35,0	39,0	15,8	
POST-THERAPY	3,1	4,3	7,0	0	8,9	15,0	7,5	2,3	
DIFF.	14,3	6,1	-1,0	8,0	13,7	20,0	31,5	13,5	

OBSERVATIONS/COMMENTS

There is a noticeable difference in the pre-therapy and post-therapy percentage stuttered syllables of all pupils. The range of difference extends from 4,0% to 31,5%. The pupils who obtained these scores were pupil number 4 and pupil number 50 respectively. The extent

of individual improvement, therefore, varies considerably.

The highest percentage stuttered syllable differences were obtained by :

pupil number 50 : 31,5%

pupil number 7 : 23,9%

pupil number 36 : 23,3%

pupil number 49 : 20,0%

pupil number 35 : 19,6%

Pupils 7 and 36 featured among the highest scorers in the reading test as well. It is important that a measure of consistency exists in the group, which implies that pupils who excel in one aspect of the test, should perform reasonably highly in the others as well. Each category of the rating scale is inter-linked, and the result of one has a close influence on the others.

TABLE 42b : % STUTTERED SYLLABLES OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - CONVERSATION

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	15,9	83,0	20,1	12,3	2,6	16,3	22,4	5,4	8,0	8,9	13,6	15,2
Post-Therapy	17,8	50,0	31,1	26,6	9,7	11,0	10,0	6,6	7,0	9,4	18,5	1,6
Diff.	1,9	33,0	11,1	14,3	7,1	5,3	12,4	1,2	1,0	0,5	4,9	13,6

Seven pupils increased their percentage stuttering in the post-therapy test while 5 pupils decreased their scores. The greatest reduction in percentage stuttering was by pupil number 2, from 83,3% to 50,0%. However, this reduction, when compared with the sample pupils' post-therapy scores, indicates that there was an increase in percentage stutter in each case.

The average reduction in percentage stuttering was therefore 5,6%, a negligible percentage, considering the extent of the stuttering. It is of significance that pupils 3 and 4 increased their stuttering by 11,1% and 14,3% respectively. This may be attributed again to the nature of the test, which requires personal interaction with another.

TABLE 43a : % STUTTERED SYLLABLES OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - MONOLOGUE

PUPIL NO.	1	2	3	4	5	7	8	10	11
PRE-THERAPY	18,7	18,9	24,4	8,3	2,5	22,7	14,9	14,9	23,0
POST-THERAPY	0	2,0	0,4	0,3	0,8	1,7	1,8	7,2	1,1
DIFF.	18,7	16,9	24,0	8,0	1,7	21,0	13,1	7,7	21,9
PUPIL NO.	16	19	20	22	25	26	28	30	31
PRE-THERAPY	14,1	3,9	14,4	9,0	23,9	15,1	12,6	17,7	4,4
POST-THERAPY	1,3	5,1	0	1,9	5,3	1,6	0	6,0	0,6
DIFF.	12,8	1,2	14,0	7,1	18,6	13,5	12,6	11,7	3,8
PUPIL NO.	33	34	35	36	37	38	39	40	41
PRE-THERAPY	20,3	10,6	22,0	24,6	20,0	16,0	13,7	20,7	8,0
POST-THERAPY	1,1	0	7,1	10,2	6,0	4,9	0	5,7	2,8
DIFF.	19,2	10,6	14,9	14,4	14,0	11,1	13,7	15,0	5,2
PUPIL NO.	42	43	44	45	47	49	50	51	
PRE-THERAPY	20,0	4,5	11,6	12,0	20,1	31,0	37,0	12,9	
POST-THERAPY	12,2	2,0	4,4	1,0	13,7	17,8	8,0	0	
DIFF.	7,8	2,5	7,2	11,0	6,4	13,2	29,0	12,9	

OBSERVATIONS/COMMENTS

An unusual feature of the post-therapy monologue scores, is that 6 pupils did not stutter at all, while a further 17 had a post-therapy score of under 5%. Results such as these augur well for the group, especially because of the nature of the monologue test, in which the pupil was at the centre of focus, and there was an absence of

inter-personal interaction, which normally enhances fluency.

It is significant to mention that 28 pupils of the group had a pre-therapy percentage stutter of more than 10%. This means that 80% of the group had frequent stutters which made speech jerky, hesitant and incoherent. However, in the post-therapy test, only 4 pupils (11,4%) had a stutter of over 10%.

TABLE 43b : % STUTTERED SYLLABLES OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - MONOLOGUE

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	14,7	20,7	21,1	22,3	3,0	13,7	21,9	2,8	11,7	4,9	8,9	13,5
Post-Therapy	9,5	32,0	27,2	26,3	2,5	8,8	13,4	3,6	10,5	6,6	12,7	18,0
Diff.	5,2	11,3	6,1	4,0	0,5	4,9	8,5	0,8	1,2	1,7	3,8	4,5

The percentage stuttered syllables of the monologue test again reveal varying degrees of increase and reduction in percentage stuttering. Pupil number 2's stuttering increased by 11,3%. It is also significant to note that pupil number 14's stuttering decreased by 8,5%. The fact that 5 pupils decreased their percentage stuttering, while 7 pupils increased their percentage stuttering, indicates a great degree of unpredictability in results. The situation will become clearer, when a holistic picture of the group is presented, and when comparisons are made.

5.2.1.4 COMPARATIVE ANALYSIS : GROUP RESULTS

TABLE 44a : EXPERIMENTAL GROUP'S DIFFERENCES IN AVERAGE % STUTTERING BETWEEN PRE AND POST-THERAPY TESTS

PUPIL NO.	1	2	3	4	5	7	8	10	11
DIFF. IN AVERAGE	13,8	16,7	18,4	7,4	3,9	27,5	23,4	10,9	16,1
PUPIL NO.	16	19	20	22	25	26	28	30	31
DIFF. IN AVERAGE	13,0	13,1	12,4	13,6	13,0	8,3	9,2	13,2	6,5
PUPIL NO.	33	34	35	36	37	38	39	40	41
DIFF. IN AVERAGE	14,4	11,4	16,9	19,9	12,1	13,5	11,5	16,3	7,2
PUPIL NO.	42	43	44	45	47	49	50	51	
DIFF. IN AVERAGE	13,1	3,4	08,5	10,2	9,9	9,9	24,4	13,9	

TABLE 44b : CONTROL GROUP'S DIFFERENCES IN AVERAGE PERCENTAGE STUTTER BETWEEN THE PRE AND POST-THERAPY TESTS

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Diff.	2,4	5,6	5,7	8,8	2,8	2,0	4,7	0,8	1,1	0,7	2,2	3,5

The differences in combined average percentage stuttered syllables range from 3,4% to 27,5%. Considering the fact that the pre-therapy tests of all pupils were characterized by a high percentage stutter, it is interesting to note that 16 pupils have an average stutter (for all three tests) of between 0% and 2,0%. Of this number of pupils, 10 pupils now have a stutter of less than 1,0%.

The range of improvement in percentage stuttered syllable of the experimental group was from 3,4% to 27,5%, while that of the control group was from 1,1% to 5,6%.

The average overall percentage improvement for the entire experimental group was 12,1% and the median was 13,0%. The corresponding figures for the control group were -0,3% and -2,5% respectively.

From the foregoing statistical analyses it is evident that the performance of the experimental group is phenomenal compared with that of the control group. The objective of including the control group was to test whether the sessions in which subjects participated were responsible for improvement in fluency or not. It can therefore be conclusively stated that the improvement of all 35 pupils (100%) of the sample group was attributed to the creative drama sessions. It may also be stated that 'association' was responsible for the minimal, or almost insignificant improvement in % stuttering in the case of the 58,3% pupils of the control group.

The foregoing discussion has addressed only the first subproblem, and the evidence clearly indicates that creative drama activities contributed towards the reduction in the percentage stutter in the sample group.

5.2.2 THE SECOND SUBPROBLEM: THE DIFFERENCE IN AVERAGE DURATION OF STUTTERING BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

The average duration of stuttering of the experimental group decreased by 1,1 seconds while that of the control group increased by 1,2 seconds. It is also significant that the sample obtained its lowest mean difference in the reading test, while the mean difference in the control group, was the highest in the reading test.

5.2.2.1 READING

TABLE 45a : AVERAGE DURATION OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES-READING

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	3,0	3,0	2,0	3,5	0,9	5,0	2,5	2,8	1,5	3,0	3,6	1,7	3,7	1,5	0,1	1,3	2,1	1,7
Post-Ther.	0,6	0	0,7	1,2	1,0	1,0	0	0,6	0,9	2,4	6,0	1,9	2,1	1,0	2,0	1,9	1,6	0
Diff.	2,4	3,0	1,3	2,3	0,1	4,0	2,5	2,2	0,4	0,6	2,4	0,2	1,6	0,5	0,9	0,6	0,5	1,7

Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	2,1	4,1	1,5	2,1	4,1	2,9	6,1	1,8	1,5	1,6	1,6	2,6	1,8	1,9	1,7	3,5	2,9	
Post-Ther.	1,0	0	1,1	1,6	2,8	1,8	1,0	1,0	1,6	1,1	0,8	1,8	2,7	0,6	2,9	2,6	5,2	
Diff.	1,1	4,1	0,4	0,5	1,3	1,1	5,9	0,9	0,1	0,5	0,8	0,8	0,9	1,3	1,2	0,9	2,3	

Data of the above table indicate that pupils 2, 8, 31 and 34 did not stutter at all in the post-therapy test, while the following pupils had a post-therapy average duration of less than 1,0 second : numbers 1, 2, 3, 10, 11, 43, 31, 34 and 47.

Ten pupils produced a difference of over 2 seconds in the duration of stuttering, with pupil number 34 obtaining the highest difference, that of 4,1 seconds.

TABLE 45b : AVERAGE DURATION OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES-READING

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	1,5	6,0	1,2	2,1	2,2	1,6	1,6	1,0	2,2	1,5	1,9	1,6
Post-Therapy	2,1	29,8	1,4	4,1	1,8	3,6	1,0	1,0	1,3	1,2	2,0	2,0
Diff.	0,6	23,8	0,2	2,0	0,4	2,0	0,6	0	0,9	0,3	0,1	0,4

25% Of the group reduced its average duration of stuttering, while 58,3% increased its average duration, and 8,3% made no change at all. It is evident that pupil number 2 increased the average duration of stuttering by 23,8 seconds.

The above data again indicate that the creative drama activities affected the average duration of stuttering of the experimental group, to the extent that the group obtained a mean reduction of 0,9 seconds. The control group, however, had a mean increase in duration of 2,1 seconds.

5.2.2.2 CONVERSATION

TABLE 46a : AVERAGE DURATION OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES-CONVERSATION

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	2,5	3,4	1,9	3,0	0	3,5	2,5	1,4	3,0	1,5	1,4	1,9	1,6	1,4	8,7	2,4	5,9	2,6
Post-Ther.	0	2,0	0,4	1,0	0	0,7	1,0	1,9	1,0	1,0	1,5	1,0	1,0	1,4	0,7	0	2,2	0
Diff.	2,5	1,4	1,5	2,0	0	2,8	1,5	0,5	2,0	0,5	0,1	0,9	0,6	0	8,0	2,4	3,7	2,6
Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	2,4	3,2	1,8	2,2	4,4	3,9	2,5	2,3	1,3	2,0	1,2	0,9	1,9	2,0	1,5	3,9	1,4	
Post-Ther.	0,7	0	2,1	1,7	3,1	0,8	1,0	1,4	1,0	1,0	0,7	0,5	0	2,1	1,4	0,6	1,0	
Diff.	1,7	3,2	0,3	0,5	1,1	3,1	1,5	0,9	0,3	1,0	0,5	0,4	1,9	0,1	0,1	3,6	0,4	

The individual conversation raw scores indicate a great degree of homogeneity within the group. 54% Of the group reduced its average duration by 1,0 second and more, while 8,6% increased its average duration by between 0,1 and 0,5 seconds. This percentage range comprised the following pupils : numbers 10, 19 and 47. Pupils 5 and 25 showed no difference at all. It is also significant that the following pupils did not stutter at all in the post-therapy test : pupils 1, 5, 31, 34 and 45.

TABLE 46b : AVERAGE DURATION OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES- CONVERSATION

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	1,5	7,5	1,5	1,1	1,0	1,6	1,0	1,0	1,0	1,3	1,3	1,9
Post-Therapy	2,6	19,6	2,5	2,5	1,6	1,6	1,3	1,0	1,9	1,1	1,0	1,2
Diff.	1,1	12,1	1,0	1,4	0,6	0	0,3	0	0,9	0,2	0,3	0,7

The control group's data reveal that 7 pupils increased their average durations of stuttering. 4 Pupils reduced average durations. The group yielded an increased mean difference of 1,4 seconds, as opposed to the experimental group's reduced mean difference of 1,5 seconds.

The above table again indicates that pupil number 2 yielded the greatest difference in average duration. His/Her results thus far indicate that this pupil was the severest stutterer of the entire population, for his/her duration increased by the largest percentage in the post-therapy test.

5.2.2.3 MONOLOGUE

TABLE 47a : AVERAGE DURATION OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES- MONOLOGUE

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	2,7	2,9	1,6	1,1	1,2	2,4	2,3	1,9	1,8	1,3	2,5	1,0	1,5	1,7	0,9	3,1	3,6	1,5
Post-Ther.	0	0,8	0,5	0,7	1,0	0,8	0,8	2,6	1,5	1,4	3,5	0	2,7	0,9	1,1	0	0,9	1,1
Diff.	2,7	2,1	1,1	0,4	0,2	1,6	1,5	0,7	0,3	0,1	1,0	1,0	1,2	0,8	0,2	3,1	2,7	0
Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	2,1	0,8	2,0	1,4	3,9	3,3	2,5	2,3	2,1	1,7	0,6	1,7	2,8	3,4	1,6	13,0	1,9	
Post-Ther.	1,2	0	2,7	1,6	5,7	2,9	0	1,7	0,8	1,1	0,5	2,5	0,5	1,2	2,3	0,6	0	
Diff.	0,9	0,8	0,7	0,2	1,8	0,4	2,5	0,6	1,3	0,6	0,1	0,8	2,3	2,2	0,7	12,4	1,9	

The above raw scores for average duration of stuttering (monologue) indicate that 22,9% of the group increased its average duration by between 0,2 and 0,8 seconds. However, the 71,1% of the group which reduced its average duration, did so by between 0,1 and 12,4 seconds. The group's pre-therapy mean was 2,3 seconds and the post-therapy mean was 1,3 seconds, with a difference of 1,0 second. The pre-therapy and post-therapy standard deviations of 1,2 and 1,3 respectively, indicate a significant extent of homogeneity within the group.

The above data also indicate that pupil number 50 made the greatest improvement in this aspect of the test.

TABLE 47b : AVERAGE DURATION OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES- MONOLOGUE

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	0,9	18,4	1,5	1,3	1,0	2,2	3,8	1,0	1,2	1,3	1,3	3,2
Post-Therapy	1,0	23,0	2,4	2,5	1,3	1,6	1,9	1,0	1,0	1,3	1,8	1,1
Diff.	0,1	4,6	0,9	1,2	0,3	0,6	1,9	0	0,2	0	0,5	2,1

The control group's raw scores indicate that 41,7% of group increased its average duration, 33% reduced its average duration, while 25,3% remained the same. This suggests a great degree of heterogeneity within the group. The group mean actually increased by 0,2 seconds, while the post-therapy standard deviation was 6,0. Pupil number 34 again yielded the highest scores (both pre-therapy and post-therapy).

A comparative analysis of the data indicates that creative drama activities contributed towards the reduction of the average duration of stuttering, the second subproblem.

5.2.3 THE THIRD SUBPROBLEM : THE DURATION OF THE LONGEST MOMENT OF STUTTERING BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

An analysis of the group data in this chapter indicated that the duration of the longest moment of stuttering decreased by 3,1 seconds, 3,7 seconds and 2,1 seconds in the reading, conversation and monologue tests respectively, in the sample group. The mean reduction in duration of the longest moment of stuttering in the sample group was 3,0 seconds, while the mean increase in the control group was 1,2 seconds.

5.2.3.1 READING

TABLE 48a : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES-READING

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	4,5	6,8	4,0	5,5	1,0	9,9	6,9	7,4	4,4	6,3	6,2	4,5	7,4	9,2	2,6	1,6	4,4	3,0
Post-Ther.	0,6	0	0,9	1,6	1,0	1,0	1,0	0,7	1,0	2,8	11,0	3,4	4,0	1,0	2,0	2,5	3,0	0
Diff.	3,9	6,8	3,1	3,9	0	8,9	5,9	6,7	3,4	3,5	4,8	3,1	3,4	8,2	0,6	0,9	1,4	3,0

Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	4,1	7,6	2,7	4,7	5,8	10,0	7,7	2,8	3,5	4,1	1,3	5,8	4,2	4,1	3,6	6,7	7,6	
Post-Ther.	1,0	0	1,8	2,1	4,0	2,0	1,0	1,0	2,2	1,5	1,0	2,5	5,3	0,7	8,5	4,5	1,7	
Diff.	3,1	7,6	0,9	2,6	1,8	8,0	6,7	1,8	1,3	2,6	0,3	3,3	1,1	3,4	4,9	1,2	5,9	

The above reading scores again reveal homogeneity within the group. 2 Pupils increased their longest moment of stuttering, while the rest of the 33 pupils reduced their longest moment of stuttering. 3 Pupils of the group did not stutter at all in the reading test. The other significant improvements were by pupils 7, 38 and 34, who reduced their longest moments of stuttering by 8,9 seconds, 8,0 seconds and 7,6 seconds respectively.

The group's pre-therapy mean of 5,1 was reduced to 2,0, yielding a difference of 3,1 seconds. The standard deviations of 2,4 (pre-therapy) and 2,0 (post-therapy) also indicate that there was a significant degree of homogeneity with regard to the duration of the longest stuttering moment.

TABLE 48b : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES-READING

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	2,3	9,8	1,4	3,4	5,4	2,0	2,0	1,0	4,0	3,0	4,0	1,7
Post-Therapy	3,0	73,0	2,0	3,6	3,0	3,2	1,3	1,3	1,6	2,0	3,4	4,3
Diff.	0,7	63,2	1,6	0,2	2,4	1,2	0,7	0,7	2,4	1,0	0,6	2,6

The control group pupils' reduction in the duration of the longest moment of stuttering ranges from 0,6 to 2,4 seconds, with 5 pupils being placed in this category. The rest of the 7 pupils increased their durations by between 0,2 to 63,2 seconds, which in itself shows a

varying degree of heterogeneity. The mean of the control group increased from 3,3 seconds to 4,3 seconds.

5.2.3.2 CONVERSATION

TABLE 49a : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES-CONVERSATION.

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	6,1	8,6	3,7	5,1	0,5	11,5	3,4	1,8	7,6	2,3	2,4	5,4	3,0	2,1	7,6	2,2	15,8	7,6
Post-Ther.	0	2,0	0,5	1,0	0	0,8	1,0	2,8	1,0	1,0	2,9	1,0	1,0	2,2	1,0	0	5,2	0
Diff.	6,1	6,6	3,2	4,1	0,5	10,7	2,4	1,0	6,6	1,3	0,5	4,4	2,0	0,1	6,6	2,2	10,6	7,6
Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	5,3	5,4	3,3	3,6	8,9	7,5	4,5	6,9	1,5	4,5	1,5	1,3	3,1	7,0	2,8	16,1	2,0	
Post-Ther.	0,7	0	5,7	3,6	4,3	1,0	1,0	2,1	1,0	1,0	1,0	0,5	0	4,7	2,0	1,0	1,0	
Diff.	4,6	5,4	2,2	0	4,6	6,5	3,5	4,8	0,5	3,5	0,5	0,8	3,1	2,3	0,8	15,1	1,0	

The pre-therapy mean of the sample group was 5,2 while the post-therapy mean was 1,5, which implies that the duration of the longest moment of stuttering decreased significantly. Only 2 pupils of the group of 35, increased their duration of longest moment of stuttering. These were pupils 10 and 35. The range of reduction in the remaining pupils was from 0,1 seconds to 10,6 seconds. The greatest reduction in duration of the longest

moment of stuttering was noted by pupil number 30 (10,6 seconds). The standard deviations of the above group (3,7 - pre-therapy and 1,4 - post-therapy) again reflect a homogeneity in group data.

TABLE 49b : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES-CONVERSATION

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	1,5	17,3	1,6	1,3	1,0	2,6	1,1	1,0	1,1	2,0	2,4	4,3
Post-Therapy	5,2	54,4	4,1	5,1	2,2	2,6	1,7	1,0	4,0	2,0	1,4	1,4
Diff.	3,7	37,1	2,5	3,8	1,2	0	0,6	0	2,9	0	1,0	2,9

The above data again indicate that the post-therapy mean increased by 4,0 seconds. 7 Pupils of the group of 12 increased their duration, while 3 pupils reduced their durations. 3 Pupils did not indicate any difference at all. Pupil number 2 again obtained the highest individual score in the post-therapy test, that of 54,4 seconds, the difference being 37,1 seconds. The standard deviation of the post-therapy test was 14,3, suggestive of a significant degree of heterogeneity in results.

5.2.3.3 Monologue

TABLE 50a : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES-MONOLOGUE

Pup. No.	1	2	3	4	5	7	8	10	11	16	19	20	22	25	26	28	30	31
Pre-Ther.	5,1	6,7	2,7	2,5	1,8	3,8	4,3	2,6	3,5	2,3	3,7	1,3	3,0	4,5	1,5	4,7	6,8	2,1
Post-Ther.	0	1,0	0,5	0,7	1,0	1,0	1,0	4,7	2,0	1,8	5,8	0	6,0	1,5	1,4	0	1,0	1,1
Diff.	5,1	5,7	2,2	1,8	0,8	2,8	3,3	2,1	1,5	0,5	2,1	1,3	3,0	3,0	0,1	4,7	7,8	1,0

Pup. No.	33	34	35	36	37	38	39	40	41	42	43	44	45	47	49	50	51	
Pre-Ther.	3,7	0,9	4,0	2,7	9,8	6,8	4,7	5,3	3,6	2,7	0,6	4,0	8,8	8,0	2,0	13,8	4,0	
Post-Ther.	1,3	0	4,9	3,1	9,4	6,1	0	2,0	1,0	1,5	0,5	5,8	0,5	1,8	3,1	1,0	0	
Diff.	2,4	0,9	0,9	0,4	0,4	0,7	4,7	3,3	2,6	1,2	0,1	1,8	8,3	6,2	1,1	12,8	4,0	

Of significance, is the fact that the mean of the above group decreased from 4,2 to 2,1 seconds. This was attributed largely to the reduction in the duration of the longest moment of stuttering by 80% of the sample group. The remaining 20% who increased their durations did so by between 0,4 seconds and 3,0 seconds. The pre-therapy standard deviation of 2,7, and that of the post-therapy of 2,1 indicate a significant degree of homogeneity within the group. The greatest reduction in duration was obtained by pupil number 50 (12,8 seconds).

TABLE 50b : THE DURATION OF THE LONGEST MOMENT OF STUTTERING OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES-MONOLOGUE

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	1,3	45,6	1,6	1,8	1,0	3,5	6,2	1,0	2,0	2,0	2,4	7,0
Post-Therapy	2,0	31,0	4,0	4,8	2,0	3,0	2,8	1,0	1,6	2,0	3,4	1,6
Diff.	0,7	14,6	2,4	3,0	1,0	0,5	3,4	0	0,4	0	1,0	5,4

A summary of the group data in 5.1 indicates that the pre-therapy mean was 6,3 and that of the post-therapy test was 4,9. Although there was a reduction in the duration of the longest moment of stutter, the post-therapy mean of the control group was still higher than that of the sample group.

The above table of raw scores indicates that 5 pupils increased their longest stuttering duration, 5 pupils reduced their durations, while 2 pupils made no difference at all. Pupil number 2 again yielded significant pre-therapy and post-therapy scores.

A comparative analysis of the above tables clearly indicates that the experimental group produced improved results because of the intervention of creative drama activities. This addresses the third subproblem - that creative drama activities contributed towards the reduction of the duration of the longest moment of stuttering.

5.2.4 THE FOURTH SUBPROBLEM : A COMPARISON OF THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES

5.2.4.1 READING

TABLE 51a : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - READING

PUPIL NO.		1	2	3	4	5	7	8	10	11
READING	PR. TH	5,3	5,2	4,3	4,3	7,8	2,7	10,0	4,1	3,8
	PO. TH.	59,5	107,0	34,5	66,0	51,0	59,3	58,5	25,7	20,6
PUPIL NO.		16	19	20	22	25	26	28	30	31
READING	PR. TH.	5,1	10,0	27,0	6,2	4,7	14,1	5,7	0,9	9,0
	PO. TH.	30,4	29,2	52,0	26,3	34,1	59,0	41,0	8,0	120
PUPIL NO.		33	34	35	36	37	38	39	40	41
READING	PR. TH.	5,0	6,2	2,5	2,0	4,7	5,6	6,1	4,1	4,1
	PO. TH.	59,5	120,0	8,7	5,9	13,0	17,4	57,0	36,0	8,6
PUPIL NO.		42	43	44	45	47	49	50	51	
READING	PR. TH.	1,6	6,9	2,1	7,3	5,9	2,8	2,6	3,3	
	PO. TH.	7,3	15,0	48,2	49,8	20,5	3,0	9,4	18,7	

The pre-therapy mean for the above group was 6,1 while that of the post-therapy test was 39,4, which indicates that every pupil made a significant improvement in the average duration of non-stuttered syllables. The range of the pre-therapy test was from 1,6 seconds to 27,0 seconds. However, the range of the post-therapy test was from 3,0 seconds to 120 seconds. The highest non-stuttered interval in the post-therapy test was realized by pupil number 34 (120 seconds).

TABLE 51b : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - READING

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	5,3	0	0	1,7	2,0	30,0	4,9	6,0	2,1	5,8	4,0	5,7
Post Therapy	4,5	0	7,0	3,5	8,0	6,5	4,5	10,5	5,8	4,2	6,5	8,2
Diff.	0,8	0	7,0	1,8	6,0	3,5	0,4	4,5	3,7	1,6	2,5	2,5

The control group results bear a close resemblance to the other post-therapy scores of this group. 7 Pupils increased their intervals, 4 decreased their intervals, while pupil number 2 made no improvement whatsoever. The mean of the control group increased by 0,2 seconds in the post-therapy test, again indicative of the overall increase in the average duration of non-stuttered intervals.

5.2.4.2 CONVERSATION

TABLE 52a : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - CONVERSATION

PUPIL NO.		1	2	3	4	5	7	8	10	11
CONV.	PR. TH.	2,3	1,8	2,3	3,3	5,2	2,2	1,5	1,9	3,2
	PO. TH.	4,6	11,3	8,1	6,0	5,0	3,8	4,0	3,6	5,6
PUPIL NO.		16	19	20	22	25	26	28	30	31
CONV.	PR. TH.	2,7	2,1	1,6	2,2	3,1	4,0	1,8	8,0	2,5
	PO. TH.	11,5	4,7	18,2	38,0	5,4	5,3	13,6	4,7	6,2
PUPIL NO.		33	34	35	36	37	38	39	40	41
CONV.	PR. TH.	3,6	1,1	1,4	1,6	1,4	3,0	2,7	1,5	3,1
	PO. TH.	10,3	9,5	5,6	3,2	1,1	5,8	10,0	3,1	8,4
PUPIL NO.		42	43	44	45	47	49	50	51	
CONV.	PR. TH.	1,7	2,1	8,0	3,1	1,2	1,6	0,5	2,4	
	PO. TH.	5,3	3,7	4,1	8,0	2,6	4,5	3,3	4,4	

The conversation test raw scores, of both the pre and post-therapy tests resemble those of the reading tests. 100% Of the pupils showed an increase in the average duration of non-stuttered intervals, with the post-therapy range being between 1,1 seconds and 3,8 seconds. Some interesting results were noted. Pupil number 22's score increased from 2,2 to 38,0 seconds, while pupil number 20's score increased from 1,6 to 18,2 seconds. The group mean increased from 2,6 to 8,8 seconds, the difference being 6,2 seconds, which suggests a significant overall improvement in average duration of non-stuttered intervals.

TABLE 52b : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - CONVERSATION

Pupil No.	1	2	3	4	6	12	14	15	17	18	21	23
Pre-Therapy	2,6	0	2,0	9,3	2,0	2,8	9	8,4	4,0	4,0	2,8	3,7
Post-Therapy	0	0	0	2,0	2,0	5,8	0	6,3	8,6	2,4	0	2,6
Diff.	2,6	0	2,0	7,3	0	3,0	9	2,1	4,6	1,6	2,8	1,1

Only 2 pupils increased their average duration of non-stuttered intervals, while 8 pupils reduced their intervals. 2 Pupils made no differences at all. The group mean changed from 5,2 seconds to 2,5 seconds, that is, a reduction in average duration of non-stuttered syllables of 2,7 seconds. This significant reduction in mean may be attributed to the inter-personal interaction between the stutterer and the facilitator.

5.2.4.3 MONOLOGUE

TABLE 53a : THE AVERAGE DURATION OF NON-STUTTERED INTERVAL OF THE EXPERIMENTAL GROUP BEFORE AND AFTER CREATIVE DRAMA ACTIVITIES - MONOLOGUE

PUPIL NO.		1	2	3	4	5	7	8	10	11
MONO.	PR. TH.	2,7	1,5	2,4	4,1	2,6	8,0	0,9	2,1	3,2
	PO. TH.	4,1	5,4	10,1	24,0	5,8	4,1	4,2	10,7	9,4
PUPIL NO.		16	19	20	22	25	26	28	30	31
MONO.	PR. TH.	3,8	7,3	3,8	2,3	2,0	1,9	1,4	3,2	7,0
	PO. TH.	6,0	5,3	14,1	8,1	10,7	8,1	8,2	9,0	10,7
PUPIL NO.		33	34	35	36	37	38	39	40	41
MONO.	PR. TH.	3,6	1,4	1,7	1,4	2,6	1,9	2,7	1,8	4,4
	PO. TH.	16,2	9,1	6,1	4,4	4,3	8,4	5,8	5,6	3,5
PUPIL NO.		42	43	44	45	47	49	50	51	
MONO.	PR. TH.	1,6	2,6	1,0	4,6	2,1	1,4	1,0	3,1	
	PO. TH.	2,7	5,9	7,2	4,8	3,9	2,6	3,3	6,5	

The monologue test yielded a significant increase in the mean, from 2,8 to 7,4 seconds, a difference of 4,6 seconds. Again, every pupil of the experimental group improved his/her non-stuttered intervals, the range being from 2,6 to 16,2 seconds. The greatest improvement was noted by pupil number 33.

The standard deviations of the above group (1,7 - pre-therapy; 4,2 - post-therapy) indicate a significant degree of homogeneity within the sample group.

TABLE 53b : THE AVERAGE DURATION OF NON-STUTTERED INTERVALS OF THE CONTROL GROUP BEFORE AND AFTER SCHOOL RELATED ACTIVITIES - MONOLOGUE

Pupil No.	1	2	3	4	9	12	14	15	17	18	21	23
Pre-Therapy	3,9	1,6	1,9	1,4	2,6	2,5	0	30,0	4,9	3,3	3,1	5,7
Post-Therapy	0	0	0	0	3,6	5,2	0	4,3	4,7	2,0	3,4	2,7
Diff.	3,9	1,6	1,4	1,4	1,0	2,7	0	25,7	0,2	1,3	0,3	3,0

The raw scores as presented in the above table, reveal that 10 pupils made no improvement in the post-therapy test. The group's mean decreased from 7,2 to 2,0 seconds. The control group was characterized by a significant degree of heterogeneity, with 7 pupils decreasing their durations to less than 3 seconds in the post-therapy test.

The above tables indicate clearly that the group increased its average duration of non-stuttered syllables, attributable at least in part to the intervention of creative drama activities, which constitute the fourth subproblem.

THE DATA IN RELATION TO THE SUBPROBLEMS, MAIN PROBLEM AND HYPOTHESIS

Thus far, each of the subprolbems was addressed. Every one of the post-therapy experimental group tests in reading, conversation and monologue revealed that the percentage stutter, the average duration of stuttering and the duration of the longest moment of stuttering

decreased, while the duration of the non-stuttered intervals increased. These factors, individually, constitute each of the four subproblems. Having conclusively proved that creative drama activities positively affected the specific characteristics as outlined in each of the subproblems, it is appropriate to conclude that 'creative drama contributed towards the reduced frequency and severity of fluency in stutterers' (the main problem). This directs the research to the hypothesis as stated in 4,3. 'That creative drama activities such as creative games, improvisational drama, dramatherapy and psychodrama reduce frequency and severity of stuttering'. It may now be concluded that the hypothesis has been empirically tested and proven in large measure. The assertions implied in the hypothesis have been empirically tested. These constitute the subproblems as well.

Further evidence in support of the hypothesis is evident in the table below, in which the percentage improvement of each pupil of the experimental group is presented.

TABLE 54 : PERCENTAGE IMPROVEMENT OF THE EXPERIMENTAL GROUP AFTER CREATIVE DRAMA ACTIVITIES

PUPIL NO.	1	2	3	4	5	7	8	10	11
% IMPROVEMENT	99,3	94,9	96,8	83,1	90,7	94,5	92,9	71,7	88,5
PUPIL NO.	16	19	20	22	25	*26	28	30	31
% IMPROVEMENT	89,0	81,4	96,9	85,5	57,5	87,4	97,9	66,7	97,0
PUPIL NO.	33	34	35	36	37	38	39	40	41
% IMPROVEMENT	94,1	100	65,8	69,6	68,8	79,4	96,6	79,5	73,5
PUPIL NO.	42	43	44	45	47	49	50	51	
% IMPROVEMENT	61,5	55,7	66,4	95,3	55,0	39,4	74,6	87,4	

The above table indicates that the lowest percentage improvement was 39,4% by pupil number 49, while pupil number 34 improved by 100%. A total of 13 pupils have a percentage improvement of more than 90%, and 7 improved by 80 to 89,9%. The table below represents the group's performance.

TABLE 55 : OVERALL PROGRESS OF THE EXPERIMENTAL GROUP AFTER CREATIVE DRAMA ACTIVITIES

PERCENTAGE BREAKDOWN	PROGRESS CATEGORY	NO. OF PUPILS	PERCENTAGE OF GROUP
80 - 100%	Excellent	20	57,1%
70 - 79%	Very good	5	14,3%
60 - 69%	Good	6	17,1%
50 - 59%	Satisfactory	3	8,6%
40 - 49%	Very Satisfactory	-	-
30 - 39%	Fair	1	2,9%
σ - 30%	Poor	-	-

5.3. Summary

It is evident from the data of the two groups that creative drama activities contributed towards :

5.3.1 A reduction in the percentage stuttering in the experimental by group 12,1% (The First Subproblem).

5.3.2 A reduction in the average duration of stuttering by 1,1 seconds in the experimental group. The corresponding result of the control group was an increase of 1,2 seconds. (The Second subproblem).

5.3.3 A reduction in the duration of the longest stuttering moment by 2,9 seconds. The control group increased its duration by 1,2 seconds. (The Third Subproblem).

5.3.4 An increase in the average duration of non-stuttered syllables in the experimental group by 14,7 seconds. The corresponding data for the control group was an increase of 0,2 seconds. (The Fourth Subproblem).

The above four subproblems collectively address the main problem : 'whether or not creative drama activities reduce / affect frequency and severity of stuttering?' Since each of the subproblems measured overt data, and that the empirical data clearly proved that creative drama was a factor which reduced frequency and severity in stuttering (the main problem), it is logical to conclude that the hypothesis has been scientifically tested, and accepted. It is true 'That creative drama activities such as creative games, improvisational drama, dramatherpy and psychodrama reduce frequency and severity of stuttering'. In arriving at this conclusion, each of the aims as outlined in 4.2, has been addressed.

Chapter 6 will provide a discussion of the results of this chapter, and then the place of creative drama in reducing the severity and frequency of overt stuttering behaviour, will become clearer.

CHAPTER 6

DISCUSSION OF RESULTS

6.1 THE DATA IN RELATION TO THE MAIN PROBLEM

Discussion of results in relation to each of the sub-problems, will be a repetition of chapter 5. This discussion will therefore focus on the conceptual relationship between creative drama and stuttering, with the main problem as a point of departure. A definite cause-effect relationship has not been established, and the discussion will therefore be speculative.

It has been established that creative drama activities contributed towards the reduction of stuttering. The question that arises, is : 'What caused the reduction of stuttering?' In order to address each of the conceptual relationships, the objectives of the 16 creative drama lessons, and the lesson content (activities) have to be examined.

In the discussion on the conceptual relationships (chapter 3), it was explained that movement affected sensation, feeling and thought, and therefore the nervous system. If facial expression and voice reflect the condition of the nervous system (Feldenkrais, 1972 : 35-36), then breathing, speaking and other such activities will reflect the condition of the nervous system as well.

It may be speculated that the movement exercises (sessions 1, 2 and 6) affected sensation, feeling and thought, thereby creating a nervous condition of calmness, tranquility and composure. Feldenkrais (1972 : 35) says that in nervous persons it is possible to discern disturbances in the muscular tonus in accordance with the deficiency. Speech, being a muscular activity, would also be disfluent if the speaker is not relaxed.

Hodgson (1978 :165) explains that drama fosters 'living through and sharing experiences' in social situations. This is supported by Heathcote (1984) who believes that drama leads to an understanding of the world we live in. Sessions 3, 7, 8, 12 and 15 focused on the social factor. A review of some of the objectives of these sessions suggests that drama creates micro-societies for which micro-skills are required for micro-behaviour (Heathcote, 1984). As such, models such as 'Mantle of the Expert', 'Teacher in Role', 'Register' and the 'Ego Technique' formed an integral part of activities to promote socialization, so that the participants learnt to 'adjust, allow, assert and interact in a contained and safely controlled situation.' (Hodgson and Banham, 1973:90).

Socialization reduced communicative stress, thereby increasing fluency. The inherent characteristics of socialization which are believed to have increased fluency are trust, commitment, inter-dependence and

sharing of responsibilities. Nebe (1991 : 132) is of the view that trust, commitment and inter-dependence determine depth of spontaneity in drama. Bonding creates security, understanding and acceptance leading to self-worth, confidence and exploration of group goals. Axline (1969 :16) says that in group participation and socialization, the participant does not have to worry about others' attitudes. It is a well-known fact in stuttering therapy and preventative intervention, that environmental acceptance leads to a decrease in stuttering. (Ingham, 1984; Van Riper, 1978).

It is therefore logical to assume that if creative drama led to improved socialization, the stutterer's self-image also underwent transformation. It has been explained in 3.2.2, that an improved self-image leads to greater fluency. Socialization was therefore an important factor in determining self-image. The objectives of the creative drama sessions which focused on socialization were realised, through the activities of these sessions.

Self-image emerges as a vital link in the conceptual relationship between creative drama and stuttering, and the reduction in the percentage of stuttering was largely attributed to improved self-image as an all encompassing factor. The creative drama activities which were designed as 'therapeutic' exercises to promote

self-image (namely lessons 7, 8, 9 and 15) focused on the elements of movement, feeling, thought and sensation, and may be conceptualized as 'self-image therapeutic exercises'. In lesson 8, the symbolic technique, involving a knowledgeable friend counselling a depressed friend hinged on Heathcote's 'Mantle of the Expert'. This was also evident in lesson 9 in which a social worker tried to help a family in which one member was an alcoholic; while in lesson 10, a skilled story-teller led a group into an imaginary world, and in lesson 15, a friend tried to convince another that there was more to life than committing suicide. These have all been adapted from established models already discussed.

Various authorities (Van Riper, 1978; Gregory, 1979 and Bloodstein, 1981) have indicated a positive relationship between stuttering and morale, self-image, confidence and socialization.

The merit of the creative drama exercises lies in the fact that stutterers managed to change their self-image (albeit in-clinic) to effect greater fluency and the reduction of percentage stuttering.

Environmental factors, such as a conducive atmosphere (register), the facilitator's attitude, level of involvement and the nature of the stimuli, determine absorption and spontaneity. (Slade, 1954). A conducive environment, friendly disposition and support lead to

trust, security and acceptance, or as Slade (1954 : 89) calls it, 'the emotional spell of spontaneity'. Piaget (1951) and Erickson (1963) are both of the view that symbolic play serves to assimilate and consolidate experiences, which in the study enabled the stutterer to overcome defeat and fears, thus reducing communicative stress, which in turn led to a reduction in percentage stuttering. This is evident in Van Riper's equation (discussed in the summary). Even in the field of stuttering therapy and theory, these factors (fear, defeat and communicative stress) are recognized.

From the foregoing discussion, it is evident that relaxation, confidence, socialization, register, stimulation, absorption and self-image reduced communicative stress, thereby reducing the percentage of stuttering. An analysis of the reading, conversation and monologue pre-therapy and post-therapy data indicates that there was a great degree of homogeneity within the experimental group. The post-therapy results of each of the three assessments indicate that stuttering was reduced as follows : reading -reduction of 10,5%, conversation-reduction of 13,3% and monologue - reduction of 12,4%. If the conceptual links were responsible for overall reduction of stuttering, then they were also responsible for reduction of stuttering in the three individual tests, and vice versa.

'Which facets of creative drama contributed towards the reduction of the duration of stuttering, and how was this reduction effected?'

The literature survey on stuttering, and the discussion on the conceptual relationships focused on factors which affect severity and frequency of stuttering. Van Riper's equation (1973 : 218 - 219) serves 'as a nucleus for the general assessment of clinical difficulty'. (Van Riper, 1973 : 219). Penalty, frustration, anxiety, guilt, hostility, communicative stress and tension are factors which can increase or reduce duration of stuttering. The aforementioned constitute the organic, psychological and environmental factors in stuttering. The conceptual relationships (discussed in 3.2) focused on the effect of creative drama on neuro-muscular control, psychological and environmental factors as well. It is therefore appropriate to conclude that creative drama reduced severity (duration) of stuttering, through socialization, absorption, spontaneity, relaxation and improvement of self-image (already discussed).

6.2 CREATIVE DRAMA OBJECTIVES IN RELATION TO RESULTS

The discussion of results cannot be effectively accomplished without an evaluation of the objectives, around which the creative drama activities centred. The specific results obtained, were the product of well-defined, planned and pedagogically sound lesson objectives, which incorporated the conceptual relationships.

Each lesson concluded with discussion within the group, and this presented some ideas about the effectiveness of the activities in relation to the objective and the independent variables.

It will not be possible to define the specific contribution of each of the sixteen sessions to the field of stuttering 'therapy', but an attempt will be made to list the specific conceptual relationship/link, and objectives of lessons which related to it. The following table has relevance to this discussion :

TABLE 56 : THE CONCEPTUAL RELATIONSHIPS BETWEEN CREATIVE DRAMA AND STUTTERING, IN RELATION TO SPECIFIC LESSONS AND OBJECTIVES

Conceptual Link	Session No.	Independent Variable	Objectives
relaxation	1 2/4	movement movement	.....to acquire greater physical and mental control through relaxation exercises and movement.
socialization	3 5 6/8/12 11/14/15	stimulation of emotion empathy sensation socialization	..... to overcome inhibitions in a group and develop sense of self-confidence. ..... to empathise through social interaction and support. ..... to explore movement qualities ..... to respond in a variety of social situations.
spontaneity	3 9/12	stimulation empathy spontaneity	.... to overcome inhibitions in a group. .... to empathize with real-life characters.
confidence	10 7	imagination symbolism confidence	.... to use dream technique to acquire confidence ..... to gain confidence
self-image	13 14 15 16	improvisation self-analysis improvisation self-image	.... to reach solutions through consensus. .... to evaluate past and present-project into future. .... to improve soical adaptability and competence .... to evaluate position amongst peers.

Each of the sessions addressed issues common to stuttering and drama principles. The sessions, collectively, over a period of 16 weeks, produced the type of results discussed. This discussion hopefully goes some way towards answering the question. 'Why and how, did creative drama activities contribute towards the reduction of stuttering?'

6.3 SUMMARY

In the discussion of results, one needs to understand that the specific results obtained, were because of the specific objectives of the creative drama sessions. Each of the objectives was aimed at one or more of the conceptual relationships. It was therefore important to speculate at the outset, that conceptual relationships existed, and then test the relationships by way of appropriate activities, based on recognized, existing models of drama theorists. This makes the study completely different from any other research in the field of speech-language pathology. This theory is further supported by the fact that every one of the experimental group pupils improved in overall fluency, the range of improvement being between 1,8% and 27,2%. Stutterers improved at all levels, as is evident in the subproblems already discussed. Improvement was consistent within the group, without any evidence to the contrary. The standard deviations of each of the subproblems reveal a remarkable degree of homegeneity as well.

The following individual results are interesting and have relevance to this discussion. Three pupils did not stutter at all in the post-therapy test, while 13 pupils had a stutter of between 0,1% and 1,0%. Percentage differences of the two tests ranged from 1,8 to 27,2%, which imply that the pre-therapy scores were significantly higher. The following pupils obtained the high-

est percentage differences : numbers 7-37,6%; 36-27,2%; 8-27,0%; 30-21,9% and 38-19,6%. The lowest differences were produced by the following pupils : 43-1,8%; 26-4,3%; 41-5,3%; 5-6,0% and 11-6,7%.

The average post-therapy percentage stutter in reading of the group was 2,4%, as opposed to the pre-therapy average of 15,9%. The reduced post-therapy percentage effectively reduced stuttering by 13,5%. This is a notable achievement for the group.

CHAPTER 7

SUGGESTIONS, RECOMMENDATIONS AND CONCLUSIONS

A resumé of the foregoing chapters indicates that the hypothesis has been tested, and attempts have been made to establish a theoretical conceptual relationship between the fields of drama and stuttering. This now provides a basis for further critical enquiry and investigation. It has been discovered that creative drama contributed to the reduction of frequency and severity of stuttering. Previously, this claim had not been empirically tested to the extent it was in this study.

7.1 EXTERNAL AND INTERNAL VALIDITY

> "With experimental designs, internal validity is the basic minimum without which any experiment is uninterpretable. The question that the researcher must answer is whether the experimental treatment did, indeed, make a difference in the experiment." (Leedy, 1980 : 170).

The creative drama sessions and the school related sessions were both conducted by the same person. Both sessions were of similar duration and involved group-work. The facilitator attempted to exhibit the same level of friendliness, and created a conducive atmosphere for individual expression, thereby reducing communicative stress, in both the experimental and control

groups. No specific direction was given to any group as far as the reduction of disfluency was concerned. Observations during both group sessions indicated a desire by pupils to : participate in discussion, question, disagree, agree and communicate. 'What then differentiated the results of both groups?'

It is common knowledge, from a stuttering therapeutic point of view that factors such as penalty, fear, anxiety, guilt, hostility, situation and word fears, vulnerability to communicative stress, motivation and inherent fluency affect severity and frequency of stuttering (Van Riper, 1971). This has been discussed repeatedly in the vast body of literature. However, there is no literature that suggests that creative drama activities, (as discussed in this research) can contribute to the reduction of penalty and the other aforementioned characteristics, thereby reducing disfluency in stuttering. This research has created a link between the two fields - a link, which until now was not recognised. What the research has succeeded in doing, is that it has pointed out that other methods and techniques can effect change in disfluency by reducing communicative stress, as well as stress related to the other aforementioned characteristics. We cannot speculate about long-term effect however, until this is investigated further.

The method of selection of the experimental and control groups was discussed in chapter 4. The pupils were matched for: age, residential areas, socio-economic backgrounds, and the fact that all pupils were stutterers. The two groups were initially evaluated for frequency and severity of stuttering. The experimental group was subjected to the experimental variable, creative drama, and re-evaluated, while the control group participated in school-related activities, and was also re-evaluated for frequency and severity of stuttering. The post-tests revealed that the experimental group reduced its frequency and severity of stuttering (discussed in chapter 5), while the control group did not.

Each of the measurements is statistically reliable, because 20% of both the pre-test and post-test scores of both groups were moderated by two independent speech-language therapists. It was observed that both the researcher's and moderators' measurements did not differ by more than 10%. There was therefore, a remarkable degree of concurrence in measurements.

The above discussion therefore suggests that the study has internal validity.

One cannot be really certain about the external validity of the study, and further investigation is therefore recommended, with the following factor as a major criterion :

- that a random sample across a wider geographical and cross-cultural spectrum be considered.

Notwithstanding the above, the following point in the direction of external validity:

- stutterers of the experimental group were not chosen because they exhibited a particular type of stutter attributed to a specific etiology, yet every stutterer increased fluency level; and
- creative drama activities positively affected each of the parameters investigated in the study.

7.2 EVALUATION OF RESEARCH PROJECT

The research design was scientific, involving a willing population of 35 experimental group stutterers, and 12 stutterers in the control group. The paradigm for the research design indicates a pre-test and a post-test in each of the groups. Leedy (1980 : 170) quotes George J. Mouly, who describes the paradigm design as the 'old workhorse of traditional experimentation'. Leedy continues to argue that where matching of factors between the two groups occurs, the 'design is thereby greatly strengthened'. (Leedy, 1980 : 170).

The measurement instruments were drawn form Ingham and Costello, (in Curlee and Perkins, 1984). These were : a standardized 5 minute reading test, a conversation and monologue test. The analyses of the tests were also made on the rating scales of Ingham and Costello, (in

Curlee and Perkins, 1984 : 330 -333). The tests have been video and audio-recorded (and are available upon request).

The research has been conducted strictly along the delimitations outlined in chapter 4, and no attempt has been made to interpret more than the data have revealed. Strictly, the research ended with the testing and confirmation of the hypothesis. The conceptual relationship between creative drama and stuttering remains speculative. This has not been empirically measured, for it did not lie within the specific domain of the research project.

7.3 SUGGESTIONS AND RECOMMENDATIONS

7.3.1 Should the value of creative drama be acknowledged as a medium of therapy, this discipline should be placed in the domain of 'Alternate Therapy'.

7.3.2 The relationship between creative drama and stuttering should be given a conceptual definition.

7.3.3 This study should be extended to investigate the possibilities outside the context of the delimitations of this study (as listed in chapter 4), namely :

7.3.3.1 the effect of creative drama on behavioural and attitudinal changes in stutterers;

7.3.3.2 the effect of creative drama on stuttering characterized by various etiologies;

7.3.3.3 The effect of creative drama out-of-clinic, with other persons as facilitators or observers;

7.3.3.4 The effect of creative drama on Indian pupils between 11 and 18 years of age outside Verulam, Tongaat and Phoenix.

7.3.4 Now that a period of approximately 18 months has elapsed since the creative drama sessions, the fluency level of the experimental group should be evaluated for transfer.

7.3.5 In future research, the long - term effect of creative drama in stuttering ought to be evaluated. For this to be effectively undertaken the 35 pupils of the experimental group need to go through two successive phases, namely a 'Reinforcement Phase' extending over 4 to 6, months and a 'Maintenance Phase' of another 6 to 12 months, depending on the severity of stuttering and the rate of progress. In the former phase, the stutterer should attend sessions bi-weekly, and in the latter phase, on a monthly basis. The progress of pupils must be monitored carefully, and at the end of each of these phases, a 'Post-Reinforcment Test' and 'Post-Maintenance Test' should be conducted. Should stuttering still prevail, the Maintenance Phase may be extended.

7.3.6 The South African Speech, Language, Hearing Association should investigate the implications of this study in terms of its delimitations, and institute further research, with a view to formulating **'fully-fledged' therapeutic** models for stuttering per se. These models can then be used by drama teachers in consultation with speech therapists.

7.3.7 The value of creative drama in effecting psychological or socio-culutral re-integration needs to be explored.

7.3.8 The Medical, Dental and Supplementary Health Professions Act, No. 56 of 1974, states that registration with the South African Medical and Dental Council is a prerequisite for practising of any medical or health-related disciplines (Statutes of the Republic of South Africa, VOl. 18, Issue No 24 : 767). The possibility of selected drama teachers working in consultation with speech therapists should be investigated, and appropriate recommendations should be made to Education Departments. At present the problem of stuttering is often left unattended.

7.3.10 The therapeutic value of drama must be explored at all levels. Nixon's (1982) views on integration of drama in the school curriculum are noteworthy, for drama may serve as a therapeutic discipline, perhaps in consultation with counsellors, clinical psychologists, psycho-

dramatists or psychiatrists, to explore its value in different fields.

7.4 CONCLUSION

It is envisaged that future researchers will expand on the theories of this research, for the number of speech therapists are few and far between. The problem of stuttering often goes unattended amongst pupils in both primary and secondary schools. The daunting cost of therapy and the diversity of present-day situations, make speech therapy inaccessible to the masses.

The frustration attendant upon submission of these findings, lies in the fact that a follow-up programme is a self-evident necessity; a programme which could substantiate the findings as being significant in long-term effect. Fiedler and Standop's call in 1983 for the long term study of therapeutic methods and approaches has yet to be realised. Such a follow-up programme could, with ease, flow from the present study, and could possibly rank as seminal in terms of 'International Research' into this area of human behaviour.

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APPENDIX A

Letters to Parents of Sample Pupils

P.O. Box 466
Verulam
4340

Phone : 0322/333073

The Parent/Guardian

Research : Group Creative Drama in Stuttering

I am pursing a Doctorate Degree in SPEECH AND DRAMA through the University of Durban-Westville. My field of study is 'THE VALUE OF DRAMA IN STUTTERING'. The field involves working with pupils who stutter. In my two pilot studies conducted in Verulam and Stanger it was discovered that group creative drama alleviated stuttering to a significant extent, and many of the pupils overcame the defect completely.

Should you want your child/ward to participate in this research programme, kindly complete Annexure A below and return to me.

PERIOD OF RESEARCH

March 1990 to September 1990. Pupils will meet at school on _____ from 2.30 pm to 4.00 pm every week. Admission is free.

_____
MAWALALL CHATGROOGHOON
(M.A.) cum laude

ANNEXURE A

Address : _____ Telephone : (H)_____
_____ (W)_____
_____ Pupil's age: _____

Mr M. Chatrooghoon

I _____, the parent/guardian of _____ do hereby grant my child/ward consent to participate in your research programme. Whilst I am aware that every precaution will be taken over the safety of my child, I absolve Mr Chatrooghoon from any injury/ death or harm that may occur to my aforesaid child/ward. My child/ward will attend the required therapy sessions regularly from March to September 1990.

_____ _____
PARENT/GUARDIAN DATE

APPENDIX B

Reading Except

MOB BURNS SATS CONDUCTOR TO DEATH

A South African Transport Services conductor was stabbed and burnt to death and the driver stabbed eight times when a mob attacked a Sats bus and set it alight at Mobeni, Durban early today.

And police said another Sats worker - a non-striker - was killed at his Daveyton home on the East Rand early yesterday - only hours after the Germinston station battle between strikers and non-strikers in which several people died.

A police spokesman said a mob stormed into the house and killed the man. He has been identified as Mr Alpheus Malandzi.

The latest incidents were reported after an urgent call was made to all those involved in acts of violence in the Sats strike to refrain from violence. The appeal was made last night by the Minister of Mineral and Engery Affairs and Public Enterprises, Dr Dawie De Villiers.

The latest death brings to 27 the number of people killed in strike related incidents in the 10-week dispute. Damage estimated at millions of rand has been caused by arson attacks on Sats property.

A Sats spokesman would not comment on whether the Durban killing was related to the countrywide strike violence.

A police spokesman said the attack happened at about 6.40 am when the bus stopped to pick up passengers near the turnoff to Umlazi on the old South Coast Road.

He said a mob armed with knives surrounded the bus and forced their way in, stabbing the driver and conductor.

The bus was then set alight. The conductor in his mid-twenties, tried to escape out of the front door but was stabbed and beaten and trapped inside. He died in the blaze.

The driver managed to leap out and fight his way through the mob and ran about 100 metres to a steam laundry where he collapsed on the floor with blood pouring from multiple wounds in his chest.

The police spokesman said he was badly injured but still alive.

Emergency services arrived promptly and managed to stabilise the driver's condition before taking him to hospital, while fire-fighters extinguished the blaze, but damage to the bus was extensive.

In his statement last night, Dr De Villiers also said he was satisfied Sats management was not involved in Tuesday's violence at Germiston station.

APPENDIX C

Monologue Test

Answer the following questions :

1. For how long have you been stuttering ?

_____

2. What do your parents and family members feel about your stuttering ?

_____

3. How do you feel when you stutter ?

_____

4. How do your friends react to your stuttering ?

_____

5. How do your teachers react to your stuttering ?

_____

6. When do you stutter most ?

_____

7. Do you think your speech problem is going to affect your future? How?

_____

_____

8. What have your parents done about your stuttering ?

_____

9. Do you think you can overcome your stuttering without outside help ?

_____

10. How do you think others can help you with your stuttering ?

_____

APPENDIX D

STUTTERING DATA SHEET - INGHAM AND COSTELLO

(ADULT)

Kernel characteristics :

Client name : _____

Accessory features:

Birthdate : _____

	Stuttering	Speaking Rate		Nonstuttered Utterance		Naturalness Rating
	Length in seconds %SS avg. stutter/ 3 longest	Overall spkg. rate (SPM)	Artic. rate (SPM)	Length in seconds avg.flu. utt./ 3 longest	Length in syllables avg. flu. utt./ 3 longest	1= high natural 9= Highly unnatural

IN-CLINIC STUTTERING DATA

5 minute Reading
Passage _____
Client talking time (CTT)__
date _____

5 minute Monologue
CTT _____
date _____

5 minute convr. with Clinician
location _____
CTT _____
date _____

EXTRACLINIC STUTTERING DATA
5 min. conver. with Clinician
location _____
CTT _____
date _____

APPENDIX E

STUTTERING DATA SHEET

Pre/Post-Therapy : Reading/Conversation/Monologue

PUPIL NO.	% STUTTERED SYLLABLES 1	AV. DURATION OF STUTTER 2	DURATION OF 3 LONGEST STUTTERINGS 3	OVERALL SPEAKING RATE 4	ARTICULATORY RATE 5	AV. DURATION OF NON-STUTTERED INTERVALS 6	DURATION OF 3 LONGEST NON-STUT. INTERVALS 7	AV. LENGTH OF NON-STUT INTERVALS 8	LENGTH OF 3 LONGEST NON-STUT. INTERVALS 9	NATURALNESS RATING 10

APPENDIX F_1

Reading Raw Scores : Pre-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	9,7	3,0	4,5 4,1 3,6	135	3,7	5,3	9,3 5,1 4,5	19	35 15 16
2	18,2	3,0	6,8 4,2 4,1	107	3,6	5,2	11,3 4,5 3,9	18	34 12 16
3	11,6	2,0	4,0 3,0 3,0	129	3,5	4,3	7,3 6,1 6,1	21	25 18 15
4	11,5	3,5	5,5 5,1 3,0	165	5,2	4,3	7,3 5,3 4,9	27	27 37 25
5	6,4	0,9	1,0 0,8	134	4,2	7,8	14,8 6,5	33	59 30
7	37,8	5,0	9,9 9,2 6,8	81	3,4	2,7	3,6 3,0 3,0	9	12 8 10
8	27,6	2,5	6,9 3,5 2,6	120	3,3	10,0	3,0	10	10
10	16,8	2,8	7,4 3,3 3,1	116	4,8	4,1	5,1 3,7 3,5	20	24 12 13
11	10,0	1,5	4,4 2,3 1,5	119	3,0	3,8	5,7 5,7 3,9	3,8	17 18 10
16	16,4	3,0	6,3 5,6 4,0	174	6,2	5,1	8,1 7,6 3,3	32	40 37 11
19	12,9	3,6	6,2 5,7 4,6	110	3,0	10,0	17,5 6,4 6,2	30	52 20 18

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	8,0	1,7	4,5 1,5 1,4	130	2,3	27,0	33,5 9,0 6,0	27	76 18 18
22	19,6	3,7	7,4 4,6 4,7	69	2,0	6,2	9,0 3,4	12	16 8
25	10,4	1,5	9,2 6,3 3,2	150	4,1	4,7	9,0 4,8 4,0	19	35 14 20
26	4,6	0,1	2,6 1,4 1,3	185	2,1	14,1	15,6 20,6 13,7	29	22 54 16
28	6,8	1,3	1,6 1,5 1,5	199	4,1	5,7	15,5 9,0 6,4	23	22 44 36
30	29,6	2,1	4,4 3,4 3,1	93	3,5	9,0	2,6	2,6	9
31	8,5	1,7	3,0 2,8 1,5	176	4,2	9,0	16,3 9,7 7,4	39	67 40 36
33	10,4	2,1	4,1 3,3 3,0	149	2,8	5,0	6,0 5,7 5,4	14	15 14 14
34	8,4	4,1	7,6 3,5 1,3	137	3,2	6,2	8,7 7,9 6,1	20	26 26 22
35	23,0	1,5	2,7 2,1 2,1	109	3,2	2,5	3,1 2,8 1,6	8	8 11 5
36	31,0	2,1	4,7 3,6 3,4	82	2,8	2,0	2,4 1,5	6	6 5
37	14,6	4,1	5,8 5,5 4,9	93	5,0	4,7	6,4 5,3 2,5	24	24 36 11

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	12,1	2,9	10,0 6,5 3,0	123	3,7	5,6	9,7 4,16 6,5	21	30 20 25
39	8,9	6,1	7,7 4,7 2,1	203	5,5	6,1	11,2 7,2 5,9	33	61 35 35
40	20,1	1,8	2,8 2,6 2,5	114	2,8	4,1	8,7 3,5 2,5	12	20 12 8
41	9,3	1,5	3,5 2,8 1,3	173	4,4	4,1	8,1 5,2 2,6	18	30 23 12
42	26,6	1,6	4,1 2,3 2,0	94	3,5	1,6	2,0 1,1	6	6 5
43	3,3	1,6	1,3 1,3 1,2	181	3,8	6,9	8,5 8,1 8,3	26	26 30 26
44	20,7	2,6	5,8 5,6 4,8	41	3,3	2,1	2,1	7	7
45	12,0	1,8	4,2 1,6 1,4	71	1,9	7,3	10,0 7,0 4,9	14	22 12 8
47	11,4	1,9	3,4 4,1 2,4	127	2,0	5,9	7,7 7,3 6,0	14	21 20 23
49	37,3	1,7	1,0 3,6 3,2	46	1,4	3,8	2,8	4	4
50	22,0	3,5	6,7 5,8 5,4	72	3,6	2,6	4,9 0,8 2,0	9	13 10 5
51	19,1	2,9	7,6 5,5 3,1	68	2,4	3,3	4,4 4,1	8	12 10 8

APPENDIX F_2

Reading Raw Scores : Post-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	0,2	0,6	0,6	215	3,6	59,5	86,0 33,0	213	288 138
2	0	-	-	232	3,0	107,0	120,0	414	414
3	0,5	0,7	0,9 0,5	210	3,9	34,5	45,0 39,0 19,0	133	144 171 74
4	0,7	1,2	1,6 1,0 1,0	224	3,2	66,0	101,0 31,0	209	264 154
5	0,4	1,0	1,0 1,0	263	4,4	51,0	42,0	225	185 264
7	0,2	1,0	1,0	210	3,5	59,3	96,0 22,6	209	326 92
8	0,6	0	1,0 1,0	175	3,0	58,5	100,0 17,0	173	299 47
10	1,2	0,6	0,7 0,6 0,5	163	2,8	25,7	25,0 37,0 15,1	71	102 68 44
11	3,3	0,9	1,0 1,0 0,9	180	3,4	20,6	24,3 23,1 13,5	73	83 71 54
16	2,4	2,4	2,8 2,0 1,9	186	4,2	30,4	49,0 11,8	129	219 38
19	0,8	6,0	11,0 1,0	119	2,5	29,2	26,3 19,3 41,9	72	78 84 55

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	1,3	1,9	3,4 1,6 0,8	182	2,3	52,0	54,5 49,5	122	160 83
22	0,4	2,1	4,0 1,2 1,0	109	2,1	26,3	17,6 35,0	57	41 72
25	1,1	1,0	1,0	182	4,0	34,1	50,0 38,5	137	214 135
26	0,3	2,0	2,0	192	3,2	59,0	61,5 56,5	191	200
28	0,6	1,9	2,5 1,7	231	3,3	41,0	48,5 33,5	134	191 76
30	7,7	1,6	3,0 2,0	91	3,9	8,0	10,4 9,1	32	31 37
31	0	-	-	131	2,2	120	120	261	261
33	0,4	1,0	1,0	142	2,4	59,5	98,0 21,0	141	228 54
34	0	-	-	167	2,8	120	120	335	335
35	6,8	1,1	1,8 1,1	118	2,7	8,7	13,2 10,2	17	26 28
36	8,9	1,6	2,1 2,0	140	3,8	5,9	10,6 6,1	22	46 14
37	4,3	2,8	4,0 3,1	104	2,7	13,0	18,0 11,9	35	44 31 29

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	1,5	1,8	2,0 2,0	162	3,3	17,4	33,7 21,8	57	107 70
39	0,2	1,0	1,0	207	3,6	57,0	94,6 19,4	207	349 64
40	0,7	1,0	1,0 1,0	207	3,5	36,0	48,0 43,0	126	172 134 73
41	4,0	1,6	2,2 2,0	164	5,4	8,6	19,5 5,4	46	77 60
42	9,2	1,1	1,5 1,3	147	3,6	7,3	1,2 3,4	27	42 11
43	1,5	0,8	1,0 0,5	207	9,8	15,0	16,0 14,0	147	157 136
44	1,5	1,8	2,5 2,0	97	4,4	48,2	51,1 45,2	105	110 100
45	0,5	2,7	0,8 5,3	213	3,8	49,8	85,0 13,5	190	337 42
47	1,7	0,6	0,7 0,5	176	3,0	20,5	26,5 14,5	63	78 47
49	12,9	2,9	4,9 8,5	78	3,6	3,0	4,1 1,8	11	15 6
50	6,7	2,6	4,5 3,5	105	3,1	9,4	19,0 5,3	29	52 20
51	3,8	5,2	1,7	2,1	9,3	18,7	28,5 14,4	35	49 27

APPENDIX G_1

Conversation Raw Scores : Pre-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	13,4	2,5	6,1 4,6 4,5	105	3,4	2,3	3,9 3,3 2,8	8	7 11 6
2	15,7	3,4	8,6 5,6 3,8	113	4,3	1,8	3,2 2,5 1,8	7,5	6 13 11
3	21,0	1,9	3,7 3,7 2,0	118	4,0	2,3	3,7 2,1 1,9	9	13 8 6
4	6,8	3,0	5,1 3,2 2,6	192	5,8	3,3	5,8 4,9 3,5	18	27 37 17
5	3,9	0	0,5	206	3,3	5,2	9,8 3,4	15	18 16
7	26,7	3,5	11,5 4,0 3,2	95	2,8	2,2	5,0 1,9 1,0	6	10 5 4
8	21,0	2,5	3,4 2,7 3,6	117	4,8	1,8	1,8 1,9 1,7	9	8 9 9
10	14,0	1,4	1,8 1,7 1,7	152	1,5	1,9	2,9 3,5 1,8	9	15 16 10
11	21,5	3,0	7,6 5,4 4,4	96	3,3	3,2	3,5 3,4 2,1	11	8 14 10
16	13,6	1,5	2,3 1,7 1,6	186	4,1	2,7	4,9 4,2 2,0	11	8 21 9
19	14,4	1,4	2,4 2,4 1,5	168	4,8	2,1	3,6 1,0 1,7	10	16 7 7

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	16,0	1,9	5,4 2,6 1,6	122	5,2	1,6	2,4 1,8 1,8	8	7 11 10
22	19,0	1,6	3,0 2,6 1,4	117	2,0	2,2	3,6 0,7	5	7 3
25	18,0	1,4	2,1 2,0 1,4	159	4,2	3,1	4,0 4,0 3,4	13	13 20 13
26	8,7	8,7	7,6 2,0 1,7	189	4,0	4,0	8,0 6,7 7,4	18	36 20 26
28	8,8	2,4	2,2 1,0 0,8	194	4,3	1,8	2,6 6,9	8	8 7
30	12,0	5,9	15,8 8,3 3,4	90	3,9	8,0	3,8 3,9 2,7	8	12 11 9
31	7,3	2,6	7,1 7,6 1,7	153	5,7	2,5	5,1 2,7 3,7	14	42 13 21
33	15,2	2,4	5,3 4,2 2,5	114	3,0	2,6	7,6 3,1 1,8	3,6	13 14 6
34	15,2	3,2	5,4 1,3 0,8	122	5,1	1,1	2,2 1,6 0,9	6	9 9 7
35	32,2	1,8	3,3 3,0 2,9	100	4,6	1,4	1,3 1,5	6,5	7 6
36	30,2	2,2	3,6 2,8 2,3	114	3,8	1,6	2,5 0,7	6	6
37	18,2	4,4	8,9 7,2 11,0	68	3,8	1,4	3,0 0,7 0,5	5	7 5 4

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	14,0	3,9	7,5 5,0 4,2	119	3,9	3,0	6,5 5,2 2,8	12	20 10 14
39	13,0	2,5	4,5 3,2 1,5	132	4,7	2,7	4,7 4,7 3,6	13	20 16 12
40	20,6	2,3	6,9 3,8 2,8	122	4,1	1,5	2,4 1,4 1,3	6	7 7 6
41	12,0	1,3	1,5 1,4 1,0	124	1,9	3,1	6,8 4,1 0,8	6	7 7 5
42	17,4	2,0	4,5 2,8 2,3	127	4,8	1,7	3,2 1,2 0,6	8	14 6 4
43	10,4	1,2	1,5 1,5 1,0	141	4,0	2,1	3,7 2,0 2,0	9	13 10 1
44	6,0	0,9	1,3 0,8 0,4	251	6,4	8,0	1,0 0,8 0,7	5	5 6 5
45	8,0	1,9	3,1 2,6 2,1	126	3,8	3,1	5,5 4,8 2,7	12	16 13 7
47	22,6	2,0	7,0 2,7 2,0	97	4,9	1,2	2,1 1,0 0,6	6	8 7 3
49	35,0	1,5	2,8 1,8 1,7	65	1,5	1,6	1,6	2	2
50	39	3,9	16,1 2,1 1,9	64	6	0,5	0,5 0,5	3	3
51	15,8	1,4	2,0 1,0 1,3	168	3,6	2,4	3,3 2,8 2,4	9	12 11 7

APPENDIX G 2

Conversation Raw Scores: Post-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	0	-	-	207	3,6	4,6	9,0 5,1	17	21 22
2	0,8	2,0	2,0	129	2,4	11,3	18,3 4,3	28	38 17
3	1,3	0,4	0,5 0,3	205	3,6	8,1	19,8 14,0	29	73 45
4	0,5	1,0	1,0	321	4,8	6,0	8,0 6,1	29	42 27
5	0	-	-	227	3,5	5,0	5,3 7,2	18	11 16
7	2,8	0,7	0,6 0,8	160	2,8	3,8	5,8 4,0	11	16 10
8	2,9	1,0	1,0 1,0	170	2,6	4,0	6,5 4,0	11	10 14
10	4,4	1,9	2,8 2,5	102	3,1	3,6	6,4 3,8	11	22 12
11	2,0	1,0	1,0	161	3,7	5,6	12,7 8,6	21	38 23
16	1,6	1,0	1,0	180	2,6	11,5	25,1 11,6	30	57 33
19	3,0	1,5	2,9 1,0 0,5	157	2,4	4,7	5,4 4,4	11	14 9 11

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	0	1,0	1,0	209	3,4	18,2	29,0 7,4	63	103 22
22	1,0	1,0	1,0	89	1,8	38	36,0 6,0	38	42 30
25	6,9	1,4	2,2 1,1 1,0	154	3,1	5,4	9,1 7,1 6,8	17	26 27 17
26	1,7	0,7	1,0 0,6 0,7	158	4,5	5,3	9,1 8,0 3,2	7	26 58 14
28	0	-	-	144	2,2	13,6	33,0 5,5	31	66 16 10
30	5,2	2,2	5,2 0,5	148	3,5	4,7	9,0 5,2	16	28 18
31	0	-	-	103	3,1	62	206	56	206
33	1,1	0,7	0,7	134	2,2	10,3	20,1 13,7	22	36 28
34	0	-	-	170	3,0	9,5	33,5 1,8	28	90 9
35	12,6	2,1	5,7 2,3	96	2,5	5,6	6,6 5,9	14	9 21
36	6,9	1,7	3,6 2,4 1,8	138	4,2	3,2	4,7 3,7 3,0	13	13 7 16
37	6,2	3,1	4,3 4,0	113	5,4	1,1	1,8 1,8	6	7 5

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	3,1	0,8	1,0 1,0	138	2,9	5,8	9,5 8,8 6,0	17	21 15 19
39	1,0	1,0	1,0	155	3,8	10,0	5,7 5,5	10	13 17
40	6,2	1,4	2,1 1,0	180	3,3	3,1	3,3 7,0	10	10 15
41	1,0	1,0	1,0	173	2,6	8,4	31,4 1,0	22	74 7
42	3,1	1,0	1,0	140	2,9	5,3	12,0 10,0	15	22 32
43	4,5	0,7	1,0 0,5	240	4,9	3,7	4,0 4,0	18	22 17
44	7,0	0,5	0,5	101	3,0	4,1	7,5 3,6	12	22 12
45	0	-	-	136	1,9	8,0	20,4 10,6 4,4	16	37 11
47	8,9	2,1	3,5 4,7 1,6	101	4,3	2,6	4,0 2,9 0,8	7	12 6 4
49	15,0	1,4	2,0 2,0 1,3	80	2,2	4,5	2,4 7,0 2,0	10	9 11
50	7,5	0,6	1,0 0,5	141	3,3	3,3	6,2 3,0	9	9 9
51	2,3	1,0	1,0	160	3,0	4,4	12,5 2,3	13	28 9

APPENDIX H_1

Monolgue Raw Scores : Pre-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	18,7	2,7	5,1 2,5 1,7	139	4,2	2,7	4,1 3,0 2,1	11	14 14 11
2	18,9	2,9	6,7 3,2 2,8	106	4,8	1,5	2,8 2,3 1,6	8	9 16 8
3	24,4	1,6	2,7 2,1 2,0	123	4,5	2,4	4,3 2,9 2,5	11	19 10 12
4	8,3	1,1	2,5 1,9 1,0	151	6,1	4,1	8,5 8,1 6,2	25	37 39 29
5	2,5	1,2	1,8 1,0	264	4,9	2,6	3,4 3,1	13	14 8
7	22,7	2,4	3,8 3,0 2,8	102	3,3	8	2,9 2,2 2,1	2,4	8 6 10
8	26,9	2,3	4,3 3,4 2,5	145	5,0	0,9	1,6 1,0	7	8 5
10	14,9	1,9	2,6 2,4 2,3	148	4,9	2,1	3,6 3,6 3,4	10	13 5 16
11	23,0	1,8	3,5 3,3 3,1	163	4,5	3,2	4,2 2,9 2,4	14	17 11 15
16	14,1	1,3	2,3 1,6 1,3	191	4,6	3,8	5,1 5,1 3,2	17	21 19 14
19	21,0	2,5	3,7 3,7 3,6	123	4,4	7,3	2,9 1,3 0,8	7	8 7 7

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	14,4	1,0	1,3 1,3 1,2	143	6,3	3,8	5,0 5,0 4,0	13	14 12 13
22	9,0	1,5	3,0 1,6 1,5	165	5,0	2,3	4,1 2,9 1,9	11	14 14 14
25	23,9	1,7	4,5 2,5 2,3	162	3,5	2,0	2,0	7	7
26	15,1	0,9	1,5 1,0 1,0	199	4,8	1,9	3,5 2,2 2,1	10	15 11 9
28	12,6	3,1	4,7 2,9 2,9	103	5,6	1,4	3,2 1,9 1,3	8	10 9 9
30	17,7	3,6	6,8 4,6 4,6	129	10,2	3,2	5,4 2,8 1,5	33	26 17 56
31	4,4	1,5	2,1 1,0	190	3,4	7,0	12,3 8,0 8,0	24	33 28 29
33	20,3	2,1	3,7 3,2 2,7	104	4,2	3,6	4,9 4,3 4,0	15	10 34 13
34	10,6	0,8	0,6 0,9	198	4,6	1,4	2,1 2,1 1,3	7	6 9 6
35	22,0	2,0	4,0 2,0 2,1	148	4,6	1,7	4,1 1,0 1,0	8	15 5 8
36	24,6	1,4	2,7 1,7 1,5	178	4,7	1,4	2,7 1,8 1,3	6	6 9 9
37	20,0	3,9	9,8 7,0 4,1	51	2,7	2,6	2,6	7	7

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	16,0	3,3	6,8 3,6 3,0	130	5,4	1,9	3,6 3,4 1,3	10	18 19 6
39	13,7	2,5	4,7 3,9 0,8	166	4,9	2,7	3,8 3,7 2,2	13	12 16 15
40	20,7	2,3	5,3 4,5 2,5	77	4,5	1,8	4,0 1,8 0,9	8	12 10 6
41	8,0	2,1	3,6 1,6 1,2	122	4,0	4,4	8,0 6,6 2,9	16	28 24 12
42	20,0	1,7	2,7 2,4 1,4	136	4,3	1,6	2,1 2,0 1,6	7	7 8 6
43	4,5	0,6	0,6 0,6	257	5,0	2,6	4,9 2,8 1,7	13	20 18 10
44	11,6	1,7	4,0 0,6 0,5	89	3,7	1,0	2,5 0,8 0,7	1,7	4 4 3
45	12,0	2,8	8,8 2,5 2,4	101	2,3	4,6	10,2 6,5 4,3	11	19 10 9
47	20,1	3,4	8,0 5,6 4,6	99	3,4	2,1	2,8 2,7 1,9	7	7 8 8
49	31	1,6	2,0 1,9 1,5	32	3,2	1,4	2,1 1,6 1,2	4,5	4 4 5
50	37	13,0	13,8 13,3 4,0	25	5,5	1,0	1,2 0,8	5,5	8 3
51	12,9	1,9	4,0 2,5 2,7	121	2,7	3,1	4,3 3,9 3,4	8	7 11 8

APPENDIX H_2

Monologue Raw Scores : Post-Therapy Test

Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
1	0	-	-	190	3,0	4,1	9,3 4,7	15	19 18
2	2,0	0,8	1,0 0,5	197	3,6	5,4	10,6 4,4 3,4	20	28 15
3	0,4	0,5	0,5	160	2,7	10,1	18,2 16,2	27	57 58
4	0,3	0,7	0,7	231	4,8	24,0	26,0 24,0	116	160 92
5	0,8	1,0	1,0	172	3,2	5,8	11,3 7,3 4,8	19	21 29 18
7	1,7	0,8	1,0 0,6	221	3,8	4,1	5,4 5,2 4,3	16	18 22 19
8	1,8	0,8	1,0 0,5	212	4,0	4,2	7,3 4,6	17	22 19
10	7,2	2,6	3,0 4,7 2,5	94	1,9	10,7	14,7 12,6	21	29 20
11	1,1	1,5	1,0 2,0	195	3,5	9,4	13,2 10,7 10,6	33	49 33 36
16	1,3	1,4	1,8 1,0	202	4,0	6,0	9,1 8,8 5,7	24	33 40 23
19	5,1	3,5	5,8 3,8 1,0	92	2,5	5,3	7,0 1,8 1,4	13	15 10 21

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
20	0	-	-	186	1,0	14,1	13,8 32,2 6,1	18	41 91 22
22	1,9	2,7	3,0 6,0 1,0	135	2,4	8,1	10,8 21,0 6,0	10,0	22 39 19
25	5,3	0,9	1,5 1,0 0,9	156	2,8	10,7	16,7 11,4 8,5	30	43 33 25
26	1,6	1,1	1,4 0,8	145	2,6	8,1	21,5 12,0 10,4	21	49 22 23
28	0	-	-	156	8,4	8,2	19,3 10,0 2,7	69	137 19 12
30	6,0	0,9	1,0 0,5	164	3,6	9,0	6,0 11,9	32	24 40 49
31	0,6	1,1	1,1	121	2,6	10,7	17,7	7,7	49
33	1,1	1,2	1,0 1,3	109	2,1	16,2	25,1 19,0 15,0	35	53 31 30
34	0	-	-	153	2,5	9,1	11,4 11,3	22	32 26
35	7,1	2,7	1,8 4,9	82	3,0	6,1	9,8 6,1	18	26 19
36	10,2	1,6	3,1 2,4 1,0	98	1,5	4,4	7,0 5,0	6	11 9
37	6,0	5,7	9,4 5,4 9,4	82	2,4	4,3	7,1 6,6	10	12 11

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Pupil No.	Rating Scale 1	2	3	4	5	6	7	8	9
38	4,9	2,9	6,1 2,9 1,6	135	2,7	8,4	12,7 10,4 5,3	24	38 33
39	0	-	-	223	3,7	5,8	190	21	11,1 8,8
40	5,7	1,7	2,0 2,0 1,6	150	2,2	5,6	7,0 7,2 5,4	13	17 16
41	2,8	0,8	1,0 1,0	205	3,6	3,5	7,7 4,8 3,2	13	22 14 14
42	12,2	1,1	1,5 1,4 1,0	120	9,3	2,7	3,6 3,2	10	14 10
43	2,0	0,5	0,5	246	4,1	5,9	8,0 6,6	24	23 25
44	4,4	2,5	5,8 2,0	96	2,4	7,2	10,8 7,0	17	29 15
45	1,0	0,5	0,5	189	2,9	4,8	9,1 8,0	14	25 19
47	13,7	1,2	1,8 1,4 1,3	108	2,6	3,9	5,5 2,3	10	12 8
49	17,8	2,3	3,1 2,6	87	2,5	2,6	4,1 1,1	6,5	7 6
50	8,0	0,6	1,0 0,5	145	2,6	3,3	3,7 6,2	12	9
51	0	-	-	180	2,5	6,5	11,4 5,7	11	25 14

APPENDIX I

Pupils' Case History Questionnaire
(Luper and Mulder, 1964)

1.0 Family History

1.1 Child's Name: _____

1.2 Age : _____ Sex : _____

1.3 Father's Name : _____

1.4 Mother's/Name : _____

1.5 Brothers : _____

_____

1.6 Sisters : _____

_____

1.7 Other relatives _____

_____

1.8 Other relatives living at home : _____

_____

1.9 Family religion: _____

1.10 Which parent does child prefer? _____

Why? _____

1.11 Which brother or sister does child prefer? _____

Why? _____

2.0 Speech History

2.1 Description of speech problems in your own words : _____

_____

_____

2.2. At age what age did child say simple words ?_____

_____

2.3 Do you associate the speech difficulty with any severe illness or unusual occurrence ? _____

_____

_____

2.4 What throat or mouth disease or injuries has the child had ? _____

_____

2.5 At what age was speech difficulty first noticed ? _____

_____

2.6 Is the child hard of hearing ? _____

2.7 Has the child ever had more speech than he has now ? __

_____

2.8 Has the child's speech shown any improvement lately ?

_____

2.9 Has the patient previously been examined or received therapy for speech problem ? _____

Where ? _____ By whom ? _____

Recommendations or treatment given : _____

_____

Remarks : _____

_____

3.0 Developmental History

3.1 Type of feeding as infant : _____

Any problems ? _____

3.2 Was the child's rate of growth seemingly normal ? _____

If not, describe : _____

3.3 Give age at which following took place : First tooth :

_____ Full set of teeth : _____

Full set of second teeth : _____

First sat alone : _____ Crawled : _____

Walked : _____ Fed self : _____ Dressed

self : _____

3.4 Which hand does the child use? Right : _____

Left : _____ Ambidextrous :_____

Has handedness ever been changed ? _____

When ? _____

3.5 Has the child ever written backwards ? _____

When ? _____

3.6 Childhood problems : Indicate how often these problems occur by encircling the letter which most clearly describes. "O" indicates "often", "S" indicates "seldom".

Nightmares	O S	Nervousness	O S
Shyness	O S	Sleeplessness	O S
Showing off	O S	Bed wetting	O S
Strong fears	O S	Constipation	O S
Whining	O S	Thumb sucking	O S
Strong hates	O S	Running away	O S
Rudeness	O S	Tongue sucking	O S
Jealousy	O S	Hurting pets	O S
Lying	O S	Setting fires	O S
Walking in sleep	O S	Refusal to eat	O S
Face twitching	O S	Temper tantrums	O S
Destructiveness	O S	Smoking	O S
Selfishness	O S	Stealing	O S
Fainting	O S	Queer food habits	O S

Playing with sex organs .....O S

4.0 Birth History

4.1 Age of mother at time of birth : _____

Age of father : _____

4.2 Conditions during pregnancy (working, health, shocks or accidents, medical care, etc.) : _____

_____

_____

4.3 Was the delivery normal ? _____

Prolonged ? _____ Instruments used : _____

Caesarean ? _____ Was there evidence of injury at birth (describe) ? _____

_____

5.0 Physical Condition of Child

5.1 Height _____ and weight_____ of child at present time.

5.2 Any physical deformities : _____

5.3 Main findings of last physical examination : _____

_____

Dr. _____ Address : _____ Date :_____

5.4 Check diseases he has had giving age and severity, "M" indicates mild, "A" - average, "S" - severe

Disease	Age
Tonsilitis	M A S
Whooping cough	M A S
Scarlet fever	M A S
Typhoid fever	M A S
Tuberculosis	M A S
Chicken pox	M A S

German measles	M A S
Measles	M A S
St. Vitus Dance (chorea)	M A S
Convulsions	M A S
Enlarged glands	M A S
Heart trouble	M A S
Thyroid disturbances	M A S
Infantile paralysis	M A S
Appendicitis	M A S
Frequent colds	M A S
Pneumonia	M A S
Pleurisy	M A S
Influenza	M A S
Diphtheria	M A S
Mumps	M A S
Rickets	M A S
Rheumatism	M A S
Dysentery	M A S
Bronchitis	M A S
Croup	M A S
Ear-ache	M A S
High fever	M A S
Encephalitis (brain fever)	M A S
Convulsions - associated with fever	M A S
Convulsions - not associated with fever	M A S
Any other	M A S

5.5 Remarks : _____

_____

5.6 Has the child ever been seriously injured or had a severe shock ? _____

State nature of injury or shock, age, and effects : _____

_____

5.7 Has the child had any operations (tonsils, adenoids, tongue tie, palate repair, etc.) ? _____

_____

Approximate date : _____

Surgeon : _____

6.0 Educational History

6.1 Is the child average , _____ below average , _____ or superior _____ in intelligence ?

6.2 Are school marks average _____ below average _____ or above average ? _____

6.3 Has the child ever failed or skipped a grade in school ? _____ Present grade : _____

6.4 Schools attended and dates (include nursery and kindergarten) : _____

_____

6.5 Does the child like school ? _____ If not, why ?

_____

7.0 Social Development

7.1 Does the child have opportunity for regular play with children ? _____ What ages ? _____

How many ? _____

7.2 Is the child usually follower or leader ? _____

7.3 Does child fight frequently with playmates ? _____

7.4 Does he prefer to play alone ? _____

7.5 Which playmates does the child prefer ? _____

Why ? _____

_____