

https://dspace.org/

# An investigation to suggest how methods of assessing work potential or capacity could be applied to meet the needs of the disabled South African Black

**Brazier, Joyce Dawn Allelleonor**

**1983**
http://hdl.handle.net/10539/21318

Downloaded from a DSpace repository. https://dspace.org/

# AN INVESTIGATION TO SUGGEST HOW METHODS OF ASSESSING WORK POTENTIAL OR CAPACITY COULD BE APPLIED TO MEET THE NEEDS OF THE DISABLED SOUTH AFRICAN BLACK

---

Joyce Dawn Allelleonor Brazier

A Dissertation Submitted to the Faculty of Medicine
University of the Witwatersrand, Johannesburg
in Complete Fulfilment of the Requirements for the
Conversion of a Diploma to a Bachelor of Science
Degree in Occupational Therapy.

Johannesburg, June 1983

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the conversion of a Diploma to a Bachelor of Science Degree in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Joyce Dawn Allelleonor Brazier

29th day of JUNE, 1983

# A C K N O W L E D G E M E N T S

The writer would like to thank Faculty and Mrs Marjorie Concha for granting the extra time to complete this dissertation and Mrs Estelle Shipham, who supervised the work for her patience, guidance and encouragement.

Gratitude is also expressed to those occupational therapists with whom the writer has had the opportunity to work, share ideas and learn from, namely Miss Irene Kaales, Mrs Yvonne Knowles, Miss Glynnis Heughan, Mrs Mary Alexander and Miss Hilda Franszen.

The willing assistance given by employers of the cases studied the management and staff of shoe repairing where job analysis were done was greatly appreciated.

Most of all the writer would like to thank Prof R Lipschitz and the disabled black individuals with whom the writer has had the privilege of working.

The insight given to the writer by Prof R Lipschitz into rehabilitation and the meaning of true teamwork entails is deeply appreciated, as is the time, advice and encouragement given in the execution of this investigation.

Lastly, the writer would like to thank Sue Ireland and Gillian Thomson who typed the manuscript, for putting in so much extra time and effort.

CONTENTS


| | | Page |
|---|---|---|
| Title Page | | i |
| Declaration | | ii |
| Acknowledgements | | iii |
| Contents | | iv |
| Lists of Tables | | vi |
| List of Figures | | vii |
| Chapter | | |
| I | INTRODUCTION | 1 |
| | 1. Statement of the Problem | 1 |
| | 2. Analysis of the Problem | 4 |
| | 3. Scope and Objectives | 6 |
| | 4. Method of Investigation | 12 |
| II | REVIEW OF THE LITERATURE | 14 |
| | 1. Review of the Developments in American Occupational Therapy Circles, Concerning Theoretical Concepts. | 14 |

2. Review of the Literature on Factors Influencing the Productivity of the Black Worker. 25

3. Review of the Literature on Methods of Assessing Work Potential or Capacity. 39

III DESCRIPTION OF A SUGGESTED METHOD OF ASSESSING THE WORK POTENTIAL OR CAPACITY OF DISABLED BLACK INDIVIDUALS AND DISCUSSION OF FIVE ILLUSTRATIVE CASE HISTORIES 53

IV SUMMARY AND CONCLUSIONS 150

APPENDICES

A. Initial Interview Questionnaire 163

B. Home Duties Checklist 170

C. Job Analysis Summary 172

D. Follow-Up Questionnaire For Patients On Home Industry Projects 174

E. Open Labour Follow-Up Worker's Questionnaire 177

F. Open Labour Follow-Up Employer's Questionnaire 179

LIST OF REFERENCES 180

BIBLIOGRAPHY 189

LIST OF TABLES


| | | Page |
|---|---|---|
| 1. | Income of Black Households in Soweto | 2 |
| 2. | Tabulation of Details of Five Retrospective Case Studies | 9 |

LIST OF FIGURES


| | | Page |
|---|---|---|
| 1. | Example of the Breakdown into Elements of Shoe Repairing Processes. | 81 |
| 2. | Flow Diagram of the Movement of a Shoe to and from the Boot Finishing Machine During a Half Sole and Heel Repair. | 83 bis |
| 3. | Home Industry Earnings of Cases 1 and 2. | 100 bis |

# I. INTRODUCTION

## 1. STATEMENT OF THE PROBLEM

The economic situation of the average South African black family, is such that an economically unproductive member places a serious strain on already over-committed resources. The income of the average black family living in the Johannesburg area was estimated by Markinor in March 1982 (see Table 1). In contrast, the estimated household subsistence level for a family of six persons was R271,71 in September 1982 (Survey of Race Relations 1982, Randall ed. 1983, p. 61). Work resettlement of the disabled black is, therefore, not only a question of maintaining social and psychological integrity, but in many cases, a stark and urgent question of physical survival.

Furthermore, the productivity of the Black worker in South African industry is problematic (Orpen, 1976 pp.1-3). Many of the disabled blacks referred for work rehabilitation, therefore, may have been dysfunctional in the urban working environment prior to their disablement. The superimposition of a disability compounds and aggravates this problem.

Table 1

Income of Black Households in Soweto

(based on Markinor's estimates in March 1982 as reported in the Survey of Race Relations 1982., Randall ed. 1983. p. 68).

| HOUSEHOLD INCOME PER MONTH | % OF SAMPLE |
|---|---|
| UP TO R99 | 4,8 |
| R100 - 129 | 5,2 |
| R130 - 149 | 2,6 |
| R150 - 169 | 6,1 |
| R170 - 199 | 5,1 |
| R200 - 249 | 14,1 |
| R250 - 299 | 9,6 |
| R300 - 399 | 14,3 |
| R400 - 499 | 20,8 |
| R500 - 749 | 13,6 |
| R750 plus | 3,7 |

The South African occupational therapist must address these problem realistically if her intervention is to have any validity for the disabled black individual. She needs to identify and address problems he experienced in work adjustment prior to disablement, as well as those caused by his disability and she needs to do this in the shortest possible time.

Such was the situation which faced the writer in meeting the needs of disabled black individuals at Baragwanath Hospital. In responding to these needs, the obvious starting point was to find a method of assessing work potential or capacity which was pertinent to the South African black - his skills, attitudes, social structure and the economic climate in which he has to function. (Work potential being the individual's predicted capacity to work at some future date.)

Valuable and pioneering studies have been done by South African occupational therapists, all of which are relevant to this study. Redecker (1977, 1979), McLaren (1978, 1979b) and Cawood (1981) have described factors important in the assessment and preparation of the disabled black for home industry projects. In addition, McLaren (1978, 1979a) investigated and described the statistical significance of various factors on the motivation of urban Black unilateral lower limb amputees to seek gainful employment. Holsten (1980) discussed the influence of culture on activity participation.

However, none of these publications relate specifically to the assessment of the disabled black's potential or capacity to take up employment in the open labour market and more depth is needed on the subject of the assessment of their potential or capacity to take up homebound employment.

## 2. ANALYSIS OF THE PROBLEM

2.1 The productivity of the black worker in South African industry has been the subject of extensive enquiry and research for a number of years by educationalists, economists, psychologists, industrialists and others.

There is, therefore, a large body of information available to assist the occupational therapist in identifying the problems the disabled Black may have experienced in the work sphere before his disablement. It remains for her to determine how these problems will effect her assessment of his work potential or capacity and how best to address them in work preparation programmes.

2.2 Four well-described methods of assessing the capacity of the disabled individual to take up employment in the open labour market have been published, namely formal testing, job-sampling (Rosenberg 1962, 1972), work trial and work simulation. (du Toit 1974, Shipham 1980, 1982).

Publications on formal testing of the disabled individual's work capacity have applied to physical ability mainly (Watson 1972, Farrell 1974, Asmussen 1967). Other formal testing procedures for eliciting information on a variety of intellectual and psychological facets of work capacity have been developed by the NIPR for the "normal" black population. Their application to the disabled black population however cannot be presumed and has yet to be investigated e.g., how do visually loaded I.Q. tests need to be modified for blind blacks.

Work trial, job-sampling and work simulation have been developed for the disabled of other population groups in South Africa and in other countries. The principles on which they are based, however, can be expected to apply to the disabled South African black. No reports have been published on the experiences of South African occupational therapists in applying these methods to the disabled black or of modifications, if any, which are required.

This study reports on the application of work trial and job sampling methods to assess the work potential/capacity of three disabled black individuals. The modifications made, if any, will be discussed.

2.3 The theoretical base of occupational

therapy has been the subject of much searching enquiry in American occupational therapy circles over the past twenty years. These developments have been followed by the writer, whose professional approach has been influenced by them.

Therefore, it is necessary to briefly review these developments in order to clarify the approach used in some of the assessment procedures (notably the initial interview) and in the later interpretation of data collected.

## 3. THE SCOPE AND OBJECTIVE OF THE STUDY

The scope and objectives of the literature review and the practical application of the knowledge gained from it are discussed below.

### 3.1 The Scope and Objectives of the Literature Review

(a) As a basis for understanding the problems of the disabled South African black in returning to work, it is logical first to study the problems of the black population at large in this respect. A review will be done of the literature on the causes of the low productivity of the Black worker. This review will be limited to the situation as it manifests in the urban industrial setting, as this was most applicable to the writer's field of clinical endeavour.

The objective of reviewing this literature, was to identify factors which could have an influence on the disabled black individual's attitudes towards work resettlement.

(b) Literature describing three of the four methods of assessing work capacity of the disabled developed for other population groups and in other countries will be reviewed in order to identify the rationale and the principles on which they are based.

The three methods to be reviewed are work trial, job-sampling and work simulation.

Formal testing will be excluded as the practical application of the knowledge gained would make the scope of the present study unmanageable. The investigation which would be required to standardise any modifications for the application to the disabled of established procedures developed for the "normal" black population, warrants a separate study of its own.

(c) Literature published by South African occupational therapists active in black communities in the urban area or hospitals serving the black population in these areas will also be reviewed. The objective of this review is to ascertain those factors that have already been found to be important, in the assessment of the

disabled Blacks potential or capacity to take up homebound employment or employment on the open labour market.

3.2 Practical Application

The following is the scope and objectives of the practical application of the knowledge gained in the literature reviews.

(a) Methods of assessing work potential or capacity will be selected from those reviewed under 3.1 (b) and (c) above. The selection and any modifications required will be made as indicated by the reviews of literature discussed under 3.1 (a) above. The resultant procedures will be described and discussed.

(b) These procedures will be retrospectively applied to a sample of five disabled black individuals referred for occupational therapy services at Baragwanath Hospital and on whom long term follow up has been maintained (See Table 2). The objective of this retrospective application is to illustrate the possible application of the procedures described under (a) above.

TABLE 2

| AGE AT FOLLOW-UP (AGE AT ONSET OF DISABLEMENT) | SEX | CULTURAL ORIENTATION | DISABILITY | AVENUE OF WORK | TYPE OF JOB | DATE OF PLACEMENT |
|---|---|---|---|---|---|---|
| CASE 1<br>29 years (21 years) | male | traditional | L. Partial Brachial Plexus Lession and L. A/K Amputee | home industry | machine knitting | August 1979 |
| CASE 2<br>45 years (37 years) | female | traditional | Partially sighted | home industry | machine knitting | June 1980 |
| CASE 3<br>28 years (21 years) | male | westernised | paraplegia L1 (total) | previous employment | filing clerk | September 1977 |
| CASE 4<br>21 years (27 years) | female | westernised | paraplegia T2 (total) | previous employment | florist | October 1980 |
| CASE 5<br>38 years (32 years) | male | transitional | Bilateral above knee amputee | other open labour | shoe repairer | November 1977 |

(i) Their case histories will be reviewed according to the procedures used, the data collected, the avenue of work indicated, (return to previous employment, other open labour, or establishment of a home industry), and their placement in this avenue, as obtained from their clinical records.

(ii) Further follow-up will be done in order to evaluate the effectiveness of the method used for assessing the work potential or capacity of these five individuals.

(c) An attempt will be made to draw conclusions from the above evaluation in order to finalise the suggested application of the methods used and identify areas requiring further research.

3.3 Limitation of the Study

(a) The Study as a whole - both the literature review and the practical application is limited to the assessment of the disabled black individual's potential or capacity to achieve economic independence within the urban environment.

(b) The review of methods of assessing work potential or capacity is limited to work trial, job-sampling and work simulation. Formal testing is thought to require a separate study of its own, involving a

collaborative effort between an occupational therapist, a psychologist and a physiologist.

(c) The practical application will be limited as follows:

(i) The patient sample will be limited to five physically disabled black individuals referred for occupational therapy services at Baragwanath Hospital, who have secure accomodation arrangements in Soweto and who are within the working age group.

Ethnicity, sex, work history, level of education/literacy, cultural orientation and degree of disability are not limiting factors.

(ii) Avenues of work considered will be limited to previous employment, other open labour and home industry. Sheltered employment will not be considered as, in most cases, placement is impractical.

## 4. METHOD OF INVESTIGATION

The retrospective study of the five illustrative case histories will be done according to:

4.1 The information recorded in the clinical records on:

(a) The data collected during the initial interview viz. occupational history, information on interest structure, cultural orientation and various other social and economic factors.

(b) The information obtained by means of a review of the records of medical and allied medical specialities involved in the treatment of the individual, viz. the cause of the disability, prognosis for recovery and any other information which may have influenced the assessment of the individual's work potential or capacity.

(c) Behaviour and performance in other activity spheres in the occupational therapy department and at home, as recorded in the clinical records.

(d) Observations of behaviour and performance on selected, structured and previously analysed activities in the occupational therapy department, as recorded in the clinical records.

(e) Analysis of the job demands.

(f) Environmental survey of the place of work.

4.2 Follow-up will be done by means of personal interview of the disabled individual and the employer, or, in the case of home industry placements, the disabled individual only. The interview

will be done by means of pre-formulated questionnaires to elicit information on:

(a) Gross monthly remuneration.

(b) Satisfaction of the worker with the avenue and type of work as well as working conditions.

(c) Where applicable, satisfaction of the employer with the rate and standard of productivity of the worker, his work habits, behaviour and relationships.

(d) Problem areas.

4.3 Evaluation of procedures used against procedures suggested in the newly formulated method.

## II. REVIEW OF THE LITERATURE

### 1. REVIEW OF THE DEVELOPMENTS IN AMERICAN OCCUPATIONAL THERAPY CIRCLES, CONCERNING THEORETICAL CONCEPTS

Over the past twenty years, our American colleagues have been involved in a searching enquiry into the theoretical base of the profession. As a result several alternative models of occupational therapy have been developed. One of these has been the occupational behaviour model developed by Reilly and associates (Clarke 1979, pp.508-511).

Reilly's classic premise is "that man, through the use of his hands, as energised by the mind and will, can influence the state of his own health". (1962,p.2). This premise forms the pivotal point of the occupational behaviour approach, which moves away from an emphasis on physical and psychological function, to a greater emphasis on occupational function.

In the exploration of the occupational behaviour approach, Reilly and associates found certain gaps were evident in our theoretical base.

1.1 We needed instruments for systematic collection of data. Two such instruments were developed :

(a) Moorhead (1969) and Florey and Michelman (1982) developed instruments for the investigation of an individual's occupational history. Moorhead describes the objectives of the occupational history as "discovering how and under what conditions the individual patient has learned to perform occupationally as he does; how the patient has learned to approach tasks and role expectations as he does; and whether he was ever more competent than he now appears? Can the therapists expect that the patient will be able to improve his role skills and if so, how much? In other words, the investigator asks what the patient's particular life-style is in terms of occupational function, so that therapy can be structured for him to build upon his experiences for improved function".

The instrument used by both researchers was a semi-structured interview. Because of the wide area that needs to be covered in occupational history taking, the interview needs to be flexible allowing for the rephrasing or the addition of questions.

Moorhead analysed the information according to the following foci :

"(i) Learning and socialisation in childhood roles.

(ii) Exploration and decision-making process around the issue of occupational choice.

(iii) Patterns of achievement and failure and environmental conditions that appear to influence.

(iv) Course of solidification or lack of it in period of adult occupational roles."

Moorhead suggests that the best and most useful source of the information is the patient himself provided that there is some assurance of the reliability of his information. It should not be obstructed by, for example, memory problems or communication deficits.

(b) The interest checklist was developed by Matsutsuyu (1969). This has not been used in the study. It does, however, warrant further attention by South African occupational therapists.

1.2 If we were to arrive at an assessment of the nature and causes of occupational dysfunction (with its health destroying properties), to use in our therapy true occupation with its health-giving and health-restoring properties and assist the disabled individual "make himself at home in the world and the world his home"; (Reilly op.cit. 1962) then we needed to understand the characteristics,

organisation and ontogenesis of occupation.

It was for this reason that Kielhofner et.al. developed their model of Human Occupation which represents the most comprehensive theory of occupation available to date. Their model integrates the work of several researchers belonging to the occupational behaviour school of thought, using the General Systems Theory (GST) as the scientific structure. Some of the researchers referred to are Reilly (op.cit. 1962, 1966) who originated the concept, Shannon (1972, 1977) and Johnson (1973, 1974) who developed the work-play model and urged a return to generic principles, Florey (1969) and Burke (1977) who investigated and described motivational forces that operate on the individual's occupational behaviour and performance, Heard (1977) who described the process of occupational role acquisition, Matsutsuyu (op.cit. 1969) and Moorhead (op.cit. 1969). Most of these researchers based their research on a sound foundation of social and behavioural science.

(a) Discussion of the General Systems Approach Used in the Model.

The GST is familiar in its application to learning theory. Kielhofner et.al. extend this to include the multifaceted learning which has to occur if the individual is to

become an effective occupational entity in the psycho-social perspective. He views occupation as the visible evidence of the individual's interaction with his environment on this level.

The individual is regarded as an open system which, briefly described, is one which interacts with its environment by an input system, which receives information from the environment; a throughput system, which organises, interprets and integrates information received; an output system through which a response to the demands of the environment or the expression of original information is achieved - occupational performance and behaviour or verbal communication. The consequences of this output, often evaluated against society's norms and standards, are then relayed back into the system and become a self-generated input. The sub-systems are re-organised according to this information and a new input results. The system therefore become self- transforming.

Kielhofner's rationale for preferring the General Systems approach to the more common reductionist approach is described by him in earlier work (Kielhofner 1978).

(i) Because one is looking at systems e.g. volitional, performance, rather than the smallest unit that can be isolated (e.g. joint range, muscle power, anxiety), over simplification

of the complex phenomena to which occupational therapy addresses itself is avoided.

As a student of human occupation, the occupational therapist needs to study not only the characteristics of the parts of the system or individual, but also their integration and interrelation, the dynamic interaction of the individual with his environment and the integrity of the individual in the midst of constant change.

(ii) The sum of the parts, obtained by adding together aspects investigated by the reductionist approach, does not quite equal the whole as obtained by using the General Systems approach.

(b) Discussion of the Content of the Model

The content of the model is so distilled and concentrated that it, perhaps, can only be appreciated when read in its entirety. With this reservation in mind, the volitional sub-system and its inter-relationship with the acquisition of performance skills and habits are discussed as they are presented in model (1980a, pp.575-577, 1980b). The elucidation which Kielhofner et.al. give on these points was found to be of particular significance to the present

study.

(i) The Volitional Sub-System

Kielhofner divides the Throughput System into three sub-systems, namely, the Volitional sub-system, the Habituation sub-system and the Performance sub-system.

The volitional sub-system is the highest of the throughput sub-systems and exerts a controlling influence over the lower ones, viz. Performance and Habituation.

Although Kielhofner et.al. omit physiological needs from their discussion of the volitional sub-system they do acknowledge them. These needs undoubtedly provide the initial impetus for the individual to interact with his environment. Physiological needs can be used with great effectiveness by the occupational therapist to initiate purposeful engagement with the environment as demonstrated by Kaales (1982) in her work with individuals disorientated subsequent to brain damage and were shown by McLaren (1978, 1979a) to be one of the major motivating forces for disabled blacks to seek gainful employment and are consequently relevant to this study.

Kielhofner et.al. start their discussion with the next level of motivational forces, viz. the spontaneous, innate and global urge of the individual for exploration and mastery of his environment. As the system changes and grows, this global tendency is differentiated and refined. Central to the differentiating process, is the image which the individual has of himself as an actor in the world.

The differentiation yields three symbolic motivational components:

> Personal Causation is the image the individual has of his competence as an actor in the world and is gained by early feedback. It will determine whether he expects success or failure and in turn whether he will seek out new and challenging situations. Personal causation can therefore inhibit or encourage active participation.
>
> Valued Goals are commitments to future action. They link the individual's occupation to society's needs for individual productive participation as they, to some extent, reflect the realities of the individual's society and culture.

Valued goals are important in that they maintain action which is not immediately gratifying.

Interests are preferences for certain types of action and are therefore a distinguishing human characteristic. They determine what occupation the individual will select from the many that could satisfy his need to explore and master his environment.

Both valued goals and interests exert control over action in that they set priorities for different types of action.

(ii) The Interrelationship Between the Volitional Sub-System and the Acquisition of Performance Skills and Habits.

The Volitional system also follows an hierarchical sequence through the life continuum (from childhood through to old age) and in each novel situation with which the individual comes into contact. Kielhofner quotes Reilly as stating this hierarchy to be exploration leading to a desire for competence which in turn stimulates a desire for achievement.

In other words, action is initiated by curiosity and a desire to explore. Exploration leads to the acquisition of skills and the development of the performance sub-system.

A desire for Competence leads to the practice of these skills according to standards and norms set by society. Consequently habits are developed i.e. the easy and repetitive way in which action is performed.

Competence leads to a desire for Achievement which in turn encourages the individual to internalise the demands of society sets for the successful achievement of a position or role. Routines of role behaviour represent a higher more complex level of organisation than habits and are also part of the habituation Sub-System. Competent interaction with the environment is a process of competent role performance which includes not only routines of skilled action but when, where, with whom and how often they are done.

The feedback which the individual receives at each of these levels is important in maintaining the movement from one level of the hierarchy to the next. Kielhofner et.al. (1980c) suggest that the individual's development can move in a negative

direction (vicious cycle) or a positive direction (benion cycle) depending on the degree of positive or negative feedback.

Kielhofner et.al.'s discussion of the volitional subsystem bears similarities to du Toit's (1974) theory of the development of creative ability. The former, however, conceptualises processes involved more clearly, clarity which is obscured in du Toit's theory by an over-elaboration of detail.

(e) Implications of Kielhofner's model to the present study

Kielhofner et.al. state the clinical value of their model to be as "a source of concrete guidelines for what information should be collected and of conceptual guidelines for interpreting and integrating the information into treatment plans. It can indicate what data are important, and once gathered what they are likely to mean". (1980 (d) p. 781).

## 2. REVIEW OF THE LITERATURE ON FACTORS INFLUENCING THE PRODUCTIVITY OF THE BLACK WORKER

The factors influencing the behaviour and performance of the Black worker in urban industry has been the subject of enquiry, discussion and research for many years. A complex of interrelated factors have been identified. These may be arbitrarily classified into two major groups - those which relate primarily to the black worker's cultural orientation and those which relate primarily to the infrastructure within individual places of employment and within the socio-economic system. These can either support or obstruct the development of successful performance and behaviour of the black worker in the urban industrial environment.

### 2.1 Factors Relating to Cultural Orientation

Orpen (1976 pp.49 - 63) referring to the work of several anthropologists, discusses the existance of a cultural continuum spanning degrees of acculturation from the tribally orientated traditionalist on the one extreme and the western-orientated progressive group on the other extreme. In practical terms, of course, the distinction is not clear cut, but researchers have found that the differences in the attitudes towards, skills for and adaptation to the urban industrial environment of different black workers can only be clearly understood with reference to the western-tribal

differentiation. Indeed the workers themselves distinguish between these sub-groups.

Orpen also states that the process of modernisation should not be seen as being dependant on mere exposure to white "exemplars of western ways" as, even in the tribal areas, western ideas are learnt from fellow blacks. It is also not unidirectional, as an individual may revert from being western in his outlook back to the tribal ways which he rejected at an earlier stage. Blacks such as preachers, teachers, businessmen who may be expected to have a western orientation, may actually promulgate tribal ideas. The distinguishing feature between the two groups is rather the degree to which western ideas are accepted or resisted.

Furthermore, the traditionalist should not be seen as a relic from a fading, forgotten past, as anthropologists have found that, in a paradoxical way, western ideas may actually strengthen allegiance to tribal ideas. The traditionalist group still represents a sizeable number in the urban areas as well as the tribal areas.

(a) Differences in Attitudes Towards Work

Because he is usually employed in the lower-payed unskilled categories of jobs, and because he is not bound by the Western work ethic, the Traditionalist's job

satisfaction is associated with its value in terms of lower need gratification - physiological needs and security needs. Extrinsic factors such as salary, working conditions, and his relationships with management, supervisory personnel and fellow workers are therefore more important than intrinsic factors in determining his job satisfaction. This is further reinforced by the fact that his reference group is the rural agricultural labourer, in comparison with whom his job in the urban industries is likely to be considerably more elevated in terms of financial remuneration and working conditions.

The Western orientated worker, on the other hand, conforms more closely to the western work ethic. Job satisfaction is more associated with intrinsic factors, such as interest value, opportunities for achievement and level of responsibility. His reference groups, to whose status he aspires, are other westernised black workers in higher positions and whites. He therefore tends to be more sensitive to perceived or actual discrimination which obstruct his upward mobility.

The above was demonstrated by several empirical studies done by Orpen (1974) and by Backer (1973). (Orpen op.cit. 1976 pp. 131-140).

The success of any attempts to improve the level of productivity of black workers through, for example, rewards, enhancement of their sense of competence and enhancement of skills, depends on a clearly discernable relationship between these attempts, the performance of the worker, and the values which he attaches to his job, e.g. tribally orientated workers are not likely to be motivated for undergoing training unless their improved skill is associated with higher salaries and, in the case of the more western orientated worker, with advancement of position, level of responsibility.

(b) Differences in Skills

Biesheuvel (1974) found cultural orientation also influenced the acquisition of visual perceptual, psychomotor and complex sensory-motor skills. Because his tribal culture does not emphasise the acquisition of such skills, the traditionalist is at a decided disadvantage in jobs which require them. He performs poorly on tasks requiring mechanical ability and discernment of spacial relationships, especially when these are presented in abstract form.

Intellectual abilities are similarly differently organised, as demonstrated by Biesheuvel (1943) Grant (1969, 1970, 1971). There is a tendency towards more concrete perceptual or pre-logical

reasoning rather than more abstract conceptual reasoning involving discernment and generalisation of logical rules and patterns. Grant thought this to be related to years of formal education. However, a later study by Kendall (1974, p. 108) on more educated blacks showed a similar tendency to perceptual reasoning reinforcing the socio-cultural relatedness of the organisation of mental abilities.

The above has important implications to the planning of training programmes. Some of the suggestions Orpen (op.cit. 1976 pp. 238-268) makes are:

(i) The more tribally orientated worker should be taught skills in the manner in which they are to be practiced so that the job-relatedness of the training is clearly discernable. On-the-job training by experienced fellow workers, who are also good teachers, or off-the-job vestibule training (in rooms separate to the work place but within the firm) lend themselves to better job-relatedness.

Off-the-job training as in apprenticeships for a skilled trade is relatively more effective for western-orientated workers than the tribal orientated workers as the former are more able to link what they have learnt in the classroom to actual performance on the job.

(ii) The rate of presentation of information must be geared to the workers' ability to absorb the information e.g. a breakdown of the job into steps or stages taught and practiced one at a time, may be a good teaching strategy to employ with tribally orientated workers.

(iii) The participation of the workers in the planning and execution of training should be facilitated by letting him set his own goals and practise what he has been taught.

(c) Adaptation to the Urban Industrial Environment

The traditionalist's behaviour is dictated by his tribal culture. Deviations from the norm are associated with disgrace and shame (Biesheuvel op.cit. 1974). He tends, therefore, to expect the same degree of rigidity of structure in his working environment and to use less initiative, expecting very definite and specific instructions to which he rigidly adheres. This was found to be the case by Baran (1974) where tribally orientated workers obtained higher scores on measures of field dependence and authoritarianism. The converse was true of western orientated workers. "Tribal orientated workers are therefore likely to be more successful in jobs which do not require

independent thinking and in which a questioning, flexible aptitude is likely to interfere with effective performance." (Orpen op.cit 1976, p.57.)

Grant (1969, 1974) developed and described an urban-rural scale for determining cultural orientation. The elements he used in the scale are: place of birth, parents place of residence, tribal intermingling in family, educational level of siblings, valued possessions, future plans in five years time, attitudes towards tribal chiefs, and traditional religious beliefs.

The importance of the employer's understanding of the workers' cultural orientation is therefore crucial to their successful integration into the urban industrial environment. Similarly the occupational therapist who seeks to assess and prepare the disabled black for re-integration into work cannot do so without taking cognisance of this very important determinant of his skills, attitudes and motivation towards work resettlement.

## 2.2 Infrastructural Support Systems for Development of Successful Working Behaviour and Performance of Black Workers

### (a) Job Opportunities

A number of writers and researchers

have commented on the detrimental effects of job reservation and the entrenchment of what originally was a natural consequence of the meeting of two cultures at different levels of economic development. (Orpen op cit 1976 pp. 15-23., Labia and Zarenda 1977, Etheridge 1982, Jackson 1982).

Until recently, there were two sharply divided job universes - the one for the blacks and the one for the whites (Orpen op.cit. 1976 p.22). Orpen felt that it was important to increase the number of semi-skilled jobs available to black workers as a start to the mingling of these two job universes.

This is a changing picture and in recent years a gradual removal of job reservation is in evidence. The impetus for these changes has come from increasing awareness of black workers of their power as a group, more awareness on the part of some employers as to the importance of creating an environment where black workers can achieve job satisfaction, and the economic recession which has highlighted the need to mobilise unemployed blacks to reduce the serious shortage of skilled labour which currently exists.

In the 1981 Survey of Race Relations

(Horrel ed. 1982), relaxation of job reservation was noted in several areas. Within the mining industry, Railways and Harbours and Airways, and the public service (Survey of Race Relations 1981 pp.151, 166 and 171) several categories of jobs previously done by whites have been opened to blacks. The National Manpower Commission (NMC) found that only about 7,3 percent of the total manpower could be classified as high-level manpower - too small to meet the country's economic and social development aims. The NMC predicted that by 1987 the proportion of blacks to whites in professional and clerical occupations was expected to rise considerably (Survey of Race Relations 1981, Horrel ed. 1982 pp. 123- 124).

This latter work area has received increased attention by researchers over recent years and studies have been done on the training and skills needed by blacks to enable them to assume managerial and supervisory positions effectively (Petasis & Hancock 1979), Templar (1982).

(b) Vocational Training Facilities

Because of the widened job opportunities for black workers and also because of an obvious need of

the black workers for better preparation and induction into the urban work environment, a great deal of emphasis has been put on the creation of better training facilities.

In the Johannesburg area, a large complex in Chamdor, Krugersdorp, run by the Department of Education and Training has been in existence for some time. This is directed mainly at in-service training in a variety of areas and in 1981 a full trade training course in motor mechanics was introduced. (Survey of Race Relations 1981, p. 373.)

In 1982, eleven of the twenty six secondary schools in Soweto were converted into "comprehensive high schools". These schools have a more career orientated educational structure as recommended by the De Lange Commissions report, and have technical, commercial, scientific and general streams (Survey of Race Relations 1981, pp. 367 and 369). Therefore, orientation to sophisticated technology of the urban industrial environment is begun at secondary school level. Training courses for teachers to upgrade their skills and qualify them for teaching subjects in each of these streams have also been created.

The private sector's contribution has been extensive as it was clear that the public sector could not possibly meet the increasing demand for training facilities. In Soweto and Johannesburg, several facilities were organised or created in 1981, e.g. a prestige commercial college (part of "Project Pace") was opened. Readi-Maid, a training and employment service for domestic workers aimed at improving their skills and ensuring better working conditions, salaries and job satisfaction (Survey of Race Relations 1981). The Black Management Forum was formed by a group of black managers to improve and upgrade management skills of blacks already in management positions and those who wished to do so.

(c) Industrial Relations

Orpen (op.cit 1976 pp. 269-270) commented on the need for improved relations between white employers and their black employees based on the acceptance of common goals, mutual trust, respect and recognition of individual merit and ability.

After a survey of one hundred and eighty four Transvaal companies, Godsell et al (1981) concluded that

> the role played by employee representatives was severely restricted as they took few decisions and played no important role in personnel functions. Similarly, industrial relations specialists were also limited in the use made of their advisory and decision making role. In general, they found that trade unions were regarded with suspicion and caution. On the positive side, awareness of the importance of good industrial relations was discernable. They felt that the degree to which this awareness is translated into practical realities remained to be seen.

In summary, many of the factors which have long been the subjects of study and research by psychologists, sociologists, anthropologists are receiving increasing attention from the policy makers in the labour market, both on infrastructural and production levels. Inevitably, this has lead to a heightened awareness of the abilities, problems and needs of the black worker in these quarters - a change which must gain in momentum. The prospects for the black worker in urban industry is therefore entering a more positive phase in recent years than in the past.

The benefits to the disabled black are obvious, in that he will have a better concept of his competence in the work place before his disablement and there will be a wider range of

jobs from which to choose alternatives. The changes, however, are likely to be gradual and the occupational therapist dealing with the work resettlement of the disabled black, is likely, for some time into the future, to be faced with individuals who have poor development of work skills prior to their disablement.

## THE APPLICATION OF THE MODEL OF HUMAN OCCUPATION TO THE BEHAVIOUR AND PERFORMANCE OF THE BLACK WORKER

In its application to the South African black the Model of Human Occupation developed by Kielhofner et.al. rtains its validity as a framework for the collection and interpretation of data.

The black individual with a traditional orientation, predictably needs to start at the lowest level of volitional sub-system hierarchy, namely, exploration, when he enters the western orientated world of the urban industrial environment. The performance skills, habit formation and occupational roles he has acquired in the traditional setting do not adequately equip him to function successfully in this occupational milieu. He needs to build on and add to these in order to develop a sense of his competence (or personal causation) and interest in the work itself. The degree to which this is recognised by the employer and supported by provision of opportunities for exploration and the development of competence in basic skills is

crucial to his successful integration.

The more western orientated black worker has, on the other hand, already acquired many of the basic skills needed and more emphasis needs to be placed on the development of competence in more advanced skills and the provision of opportunities for a wider range of occupational choices coupled with opportunities for achievement and advancement in his chosen area of work.

This provides the occupational therapist with valuable pointers as to what factors to look for in the occupational history of the disabled black individual. In addition, the approach that needs to be adopted, the planning of his work resettlement and preparation for the achievement of this end will be clarified.

# 3. REVIEW OF THE LITERATURE ON METHODS OF ASSESSING WORK POTENTIAL OR CAPACITY

Having gained an overall view of the nature, characteristics and ontogenesis of the individual as an occupational entity (literature reviewed under Section 1) and the special problems and factors exerting an influence on the efficient performance of the black worker in urban industry, attention can be given to the more analytical skills available to the South African occupational therapist in the assessment of work potential or capacity of the disabled black - those related to assessment for open labour jobs developed for the disabled of other population groups and those related to assessment for home industry projects developed for the disabled black.

## 3.1 Methods of Assessing Potential or Capacity for Assuming Employment on the Open Labour Market Developed for the Disabled of other Population Groups

These were first introduced at an International level at the Third International Congress of the World Federation of Occupational Therapists in Philadelphia, 1962. They were subsequently brought to South Africa and their applicability to South African conditions researched by pioneers such as Gillard (1966), Lowes (1966, 1970) and Fordyce (1967). The method used in these early stages was primarily the job sampling technique

preceded by a work related programme and followed by a trial placement in a job in the area indicated by the assessment procedure. Little change occurred until the introduction of time and motion study concepts at the National Congress held in Pretoria in 1971. In 1971, Farrell and du Toit (du Toit 1974) combined these two processes with the Humphries Chart System and developed the concept of work simulation currently in use at the Medical Fitness for Work Unit, H F Verwoerd Hospital in Pretoria.

(a) Job Sampling

The TOWER (training, orientation and work evaluation) is the most famous and has become the standard for the job sampling technique. It was developed by the New York Institute for Crippled and Disabled Rehabilitation and Research Centre.

Rosenberg (1962, 1972) describes the reasons for the inception of this method and stages through which the system went to reach its present level of development.

It was found that aptitude tests which were standardised for able-bodied individuals, did not give a realistic appraisal of the vocational potential of disabled individuals. It was therefore decided to use a work sampling approach which allowed the evaluator to observe the

performance of the disabled individual on a series of tasks representing essential elements of various jobs.

Later, after much improvement and streamlining of the original job samples, the TOWER system was developed. This is a reality testing situation, utilising observations of the disabled individual's performance on job samples, taken from fourteen different work areas, in a simulated work environment. Pertinent aspects of the individual's behaviour, such as how he reacts under pressure, his flexibility, co-operativeness and ability to relate to supervisors and fellow workers are noted. This takes place over a period of five weeks after an initial screening process (it was found that some individual's could not cope with the programme and needed other rehabilitative services before they could be accepted).

The TOWER system has been used since 1934, and over six thousand disabled persons were successfully placed in employment between 1952 and 1972. It is used in many countries in the world by evaluators who have undergone a five week training course in the use of the system. These countries include Japan, Hong Kong, India, Canada, Australia, New Zealand, Denmark, Holland, West Germany.

The approach has therefore been proved with time and results, and seems to be

fairly universal in its applicability.

To establish new work samples, Rosenberg (op.cit. 1972) recommends that the following procedure be followed.

(i) Information should be obtained on feasible and potentially available jobs for the disabled population being served. Sources of information are Government bodies placing non-disabled, visits to factories, stores, industries, schools teaching trades and related vocational subjects. These sources may be supplemented by newspaper advertisements.

(ii) Visits should be made to several local employers and the jobs observed. The sequence of operations, equipment, materials, specific job details and speed required should be noted in an orderly and organised manner.

(iii) From these observations, the evaluator should compile a series of job samples. Speed and quality standards should be established for each.

(iv) A preliminary test work sample should be made. Performance on the sample by fellow workers, friends and high level functioning disabled

individuals will serve to establish scanning criteria, help to determine the range of skills required and to test the clarity of written instructions.

(v) Further revisions should be made on the speed and quality criteria through visits and talks to employers and supervisors who are acquainted with that trade area.

(vi) The work samples may be given to all the clients at the agency and their performance evaluated according to established criteria. Follow-up studies should be done on disabled individuals who have been placed in the area tested by the work sample. Peake (1962) used job samples in a similar way.

(b) <u>The Performance Evaluation System</u>

The Performance Evaluation System developed by Gable (1962), a manual arts therapist, at the Bronx Veterans Administration in New York, is a variation of the TOWER theme. The differences between the two systems are described by Gable, the most significant one being that instead of testing the individual on a standard series of work samples, the Perforamnce Evaluation Programme was more individualistic. The area of work and the starting level (from beginner to advanced)

was determined by an initial interview during which information was sought on education, work history, vocational training, limitations and handicaps of the individual. Gable stressed the importance of the initial interview stating that it was here that the disabled individual's co-operation was first enlisted and the procedures and objectives are stated.

The work areas were graded according to a number of factors e.g. from hand to machine tools, from simple operations to those requiring special facilities, from measuring to making patterns. The programme was adjustable, flexible and tentative in order to allow for individualisation. Factual information regarding the disabled individual's performance was recorded on work projects over three to four weeks for the same number of hours per day.

(c) Work Simulation

This method as described by Shipham (neé du Toit) (du Toit 1974, Shipham 1980, 1982) utilises the Humphries Chart System to both analyse the job and assess the patient's abilities (Shipham 1982). It has been in use in the Medical Fitness for Work Unit at the H F Verwoerd Hospital since 1971 having been brought to South Africa from Australia by Farrell (du Toit 1974).

Various jobs observed and analysed in industry are recorded on a multi-columned chart I. This chart has nine columns representing different combinations of:

(i) practical elements (prefixed by symbol P) including all purely motor elements those involving vision, hearing, perceptual modalities etc;

(ii) decision making without trade knowledge elements (prefixed by symbol D);

(iii) decision making with trade knowledge elements (prefixed by T);

(iv) supervisory elements (prefixed by S).

Once three jobs in each of the nine categories have been recorded, their elements are transposed onto Chart II - a continually growing list as new elements are found (du Toit 1974). Care is taken not to use names of machines or tools so that similar elements can be represented by one recording on the Chart. Patient projects are made up containing different combinations of elements. These projects are recorded on Chart III. Chart IV is used to record the patient's performance in relation to standard times obtained by application of the MODAPTS (Modular Arrangement of Predetermined Time Standards) system and according to qualitative standards graded on a three

point scale on different work projects.

Chart V is used to record the patient's performance and gradually a profile is built up of his assets and liabilities as shown in the work projects he has done.

The advantages of this method appear to be threefold - the first two relate to its clinical advantages, the third to its scientific strength.

(i) One job may be used to simulate many other jobs with similar elements maximising effective use of available facilities;

(ii) By breaking down the patient projects into steps or processes it is possible to identify problem areas and the reasons for failure to successfully fulfill the requirements for the project;

(iii) While some presumptions are made about the intellectual, physical and personality loadings of different jobs, these are kept at a minimum. The job is factually broken down into identifiable elements and the patient's performance is factually recorded according to qualitative and quantitative standards for these same elements. The elements therefore become the common language into which both the patient's abilities and the

job demands are translated. The correlation of abilities and demands is thus facilitated.

(d) Work Trial

Placement in real work situations within the hospital or in the community is sometimes needed where facilities for particular types of work are not available (Thralls 1962) or where the therapist mistrusts the evaluation obtained in a more contrived environment (McDougal et al 1975, Fordyce 1967). The placement is, however, usually preceded by some form of rehabilitative service where an idea is obtained as to the patient's readiness for work. The patient is informed that the trial placement will not necessarily be a permanent one and that payment cannot be expected.

(e) Lowes (op.cit. 1970) described the work-related programme. She emphasised the importance of early commencement of preparation of the individual for work. The work related programme, as described by Lowes, concentrates on retraining of what she terms basic work skills, namely work habits, work tolerance and productive speeds. These basic work skills were, however, generally applicable to any type of work.

(f) Other Relevant Research

Etheridge (1958) formulated a pre-vocational evaluation of rehabilitation for psychiatrically disabled patients. The evaluation consisted of categories such as work skills, habits and tolerance, socialisation and attitude towards others, personality chacteristics and general observations (appearance, learning capacity and general intelligence, use of time, knowledge of equipment, safety and shop policies). Each of these categories was subdivided into a number of sub-divisions and each was qualitatively rated on a four point scale both in the occupational therapy section and in the industrial therapy section. Four hundred and twenty-one evaluations were done and the correlation between the rating and the eventual success of the subjects established. Etheridge found that attitudes towards work, co-workers, supervisors, etc. was the most important factor in this group of patients and that there was very little difference in the evaluation done in the occupational therapy and industrial therapy sections.

## 4. REVIEW OF THE LITERATURE PUBLISHED BY OCCUPATIONAL THERAPISTS ACTIVE IN BLACK COMMUNITIES AND HOSPITALS SERVING THE BLACK COMMUNITY IN URBAN AREAS

(a) Assessment and preparation of the disabled black for home industry projects is the subject of most of the literature dealing with the work resettlement. Redecker (1977, 1979) describes the assessment and preparation of patients with spinal cord injuries at Conradie Hospital in Cape Town. Home industry in most areas was selected as the avenue of choice because of difficulties with transport to and from work, limited open labour opportunities in the rural areas, limited work facilities for wheelchair-bound labourers. Home industry was only decided upon when open labour was unobtainable and in the second stage of treatment. Assessments were done on:

> "Level of physical functioning - muscle power, balance, sensation, functional use of hands;
>
> Level of psychological functioning - basic personality, motivation, attitude towards treatment and work, work habits, interests, initiative, drive, self-discipline and perserverance;
>
> Home circumstances - family and cultural background, residential

> area, consumer demands in the area concerned, work facilities and equipment at home, availability of materials."

Preparation in a skill chosen by the patient as done by a craft instructor and training was divided into phases - simple progressing on to complex. Once the patient had learnt the skill and was producing articles of a good quality he was expected to continue by himself in the ward and save money for materials and tools. Home industry projects done in the urban areas were mainly for the tourist market and general public. Home industry projects done in the rural areas were mainly for the consumer market e.g. making of clothing, leather purses, belts, hats, shoes, sandals, different kinds of containers; maintenance work - shoe repairs, mending of clothes, metal repairs, radio and watch repairs; making ornaments. Out of ninety-six patients followed up seventy-two were still doing their home industry (forty-three of these being black). Interestingly most of the patients followed up were doing more than one type of home industry projects (Redecker 1979). Cawood (1981) also active at Conradie Hospital investigated vegetable gardening as a home industry. No follow-up on cases was reported however.

McLaren (1979b) approached home industry from the perspective of a community worker. A group of eighteen unemployed, disabled blacks from the urban township of Natalspruit (near Alberton) were visited at home and their problems discussed with them. Thereafter, a group discussion conducted in vernacular was held and those who had attempted home industry told of problems they had experienced. These were lack of socialisation and loneliness, difficulties with marketing, costing and obtaining money from customers; shortage of finance for equipment, materials and correspondence courses; difficulties in obtaining transport to buy materials and get machinery repaired, police harassment because they did not have the necessary permits to conduct businesses; lack of training in skills and upgrading skills. Various solutions were suggested by the group e.g. utilising community resources for transport, repair of machinery, utilising the JOBS organisation for finance and business expertise and combining together to share skills and to assist each other with the marketing of produce. The skills which members of the group had or wished to practise, were similar to those used at Conradie Hospital for home industry projects.

McLaren also investigated suppliers of materials and tools, legalities and procedures connnected with hawkers permits. The project was due to be

followed up in 1980.

Both Redecker and McLaren emphasised the importance of teaching patients business skills. Both also encountered problems in doing so partly because these techniques were unfamiliar and because of literacy problems.

McLaren (op.cit. 1978, 1979a) investigated and described factors which exerted an influence on the disabled black's motivation to seek gainful employment. She found that family responsibilities in terms of financial contribution, and family relationships were the main factor exerting a positive influence on motivation to work. While these findings are not questioned, it is clear that the picture is a far more complex one.

## III. DESCRIPTION OF A SUGGESTED METHOD OF ASSESSING THE WORK POTENTIAL OR CAPACITY OF DISABLED BLACK INDIVIDUALS AND DISCUSSION OF FIVE ILLUSTRATIVE CASE HISTORIES

### 1. DESCRIPTION OF A SUGGESTED METHOD OF ASSESSING THE WORK POTENTIAL OR CAPACITY OF THE DISABLED BLACK INDIVIDUAL

It is suggested that the assessment of the disabled individual's work potential or capacity takes place in three phases, viz. preliminary, interim and final. (cf. Lowes op.cit. 1970).

The preliminary phase concentrates on obtaining an overall view of the individual as an occupational entity from a psycho-social perspective and the impact of the disability is likely to have. Only once this overall picture is obtained can the more analytical skills of the occupational therapist be used during the interim and final stages to clarify and remediate problem areas.

#### 1.1 Preliminary Assessment

This is done as soon after referral as possible, irrespective of the length of time that has elapsed since disablement.

It is aimed at eliciting information which will allow a prognostication of the

disabled individual's capacity to take up employment at some future date (work potential) and the avenue of employment to pursue (previous employment, other open labour or home industry). The less time that has lapsed since disablement, the less definitive will this prognostication be. Nevertheless, even in the case of newly disabled individuals, areas where more information is required, as well as those needing consolidation during therapy can be clarified and play an important role in the setting of therapy goals, linking it to eventual work resettlement from the start. The information gleaned during this preliminary assessment thus sets the tone for all that is to follow and is considered crucial to effective and early work preparation.

The procedures applied during this phase are:

- The initial semistructured interview, supported as necessary, by discussion with family members and the previous employer.

- The Home Duties Check List.

- Review of the records of and discussion with medical and allied medical specialities involved in the treatment of the individual.

- Standardised tests for assessing

skilled use of physical and intellectual function can be applied during this phase e.g. those developed for testing dexterity, decision making and reasoning ability. (Kielhofner et.al. 1980d). These have, however, not been used in this study.

### 1.1.1 The Initial Semi-Structured Interview

After experimenting with various formats for the interview, Moorhead's semi-structured interview developed for the taking of an occupational history (op.cit. 1969) was chosen as the framework for this interview.

#### 1.1.1.1 Modifications

The modifications introduced were as follows:

(a) The content of the procedure has been modified according to the assessment and intervention model developed by Brazier and Lipschitz (1976) and the literature reviewed on factors influencing the productivity of the black worker.

(b) The overall focus of the interview is to gain an insight into the individual as a psycho-social entity. Moorhead's foci of interpretation of the data collected (see pp. 14-15)

were used but learning and socialisation in childhood roles was excluded as it was found difficult to ellicit sufficient information on this point. Cultural orientation and interest patterns were, however, included. The foci for interpretation were thus:

(i) cultural orientation;

(ii) exploration and decision-making process around the issue of occupational choice;

(iii) patterns of achievement and failure and environmental conditions that appear to influence;

(iv) course of solidification or lack of it in period of adult occupational roles;

(v) avocational and vocational interest patterns;

(vi) general observations of the individual's behaviour during the interview.

As the writer had limited vernacular language skills, effective communication had to be assured.

If the disabled individual is proficient in English or Afrikaans it is preferred to have direct communication with him, with an interpreter available to intervene if necessary. However, if there is any suspicion of language obstructions to communication it is preferred to use an interpreter throughout the interview.

(c) Because of the somewhat probing nature of the questions which may also have a different connotation to the patient (e.g. legal documents, area of origin and home environs), the purpose of the interview needs to be clearly explained so that mistrust as to the therapist's motives for requesting such information is avoided. It has been found that provided such explanations are given, the individuals usually responded very well.

1.1.1.2 Disadvantages

(a) A problem which is more frequently found is the situation where the therapist is seen as an authority figure and a rapid fire question / answer interview is created. This can be avoided to some extent by encouraging the volunteering of information and allowing some divergence from the question at

hand, while discouraging irrelevant rambling.

(b) The semi-structured interview, as suggested by the writer, takes approximately two hours to execute.

However, all these possible and probable disadvantages are far outweighed by the yields of such an interview. If it is acknowledged by the therapist that, in this area, it is the disabled individual who is the expert and the therapist who requires education, it is the avenue whereby the disabled individual can put the stamp of his own personality on the therapy and a more complete picture of the individual as a psycho-social entity can be obtained by the therapist.

1.1.1.3 Discussion of the Content of the Interview

(a) Elements of Grant's (1969, 1974) rural-urban scale have been included as part of the interview viz section 1, 7d and e (see Appendix A). It was felt that the further information on attitudes, aspirations and past experiences will allow for a reasonable perception of cultural orientation without actually applying the scale as a separate procedure. The interpretation of the data was

done by the writer who had an opportunity to observe the individuals and against the background of knowledge gained in the review of literature on culturally determined behaviour, attitudes towards work and skills.

(b) Home Environs Survey

The questions are focussed on identifying the individual's status in the home and consequently any restrictions placed on him e.g. if he is a lodger, any home industry plans would have to be discussed with the family or persons with whom he stays. Plumbing, electrical supplies are by no means standard and need to be known, as much for personal care and home duty retraining, as for home industry planning.

If the individual has a disability which could cause mobility problems e.g. blindness, paraplegia and is an outpatient questions can be asked about any obstructions to mobility in the home. This is not done with newly disabled patients as these questions imply permanence of the disability which the individual may not be ready for.

If necessary, this survey can be followed-up at a later stage by a

home visit and discussion with a family member or the social worker.

(c) Financial Responsibility

In many cases each wage earning member of the family pays for specific items and the financial responsibilities are thus distributed. By phrasing the question in this way rather than asking whether patient is major breadwinner or part-contributor a better idea is obtained of his financial responsibilities.

(d) Family Relationships

Apart from discovering any emotional stresses the individual may have had to cope with and the degree of support he can expect during his adjustment to disabled living, family support is important if home industry is considered. Direct discussions with the family or indirectly via the social worker, who has a more intimate contact with them, will assist in gaining a perspective on the effect of the patient's disability on the family unit and the causes of disrupted relationships.

(e) Work History

A detailed work history is taken in

order to obtain information on past achievements and failures; exploration of different types of jobs and skill acquisition; attitudes towards work, aspirations and vocational interests; degree of adaptation to the work environment and the level of confidence the individual has developed in his capabilities as a worker. These are indications of his degree of adaptation to the urban work environment and any negative elements will have to be addressed in therapy or planning.

In particular, any negative attitudes to previous employment may contra-indicate return to previous employment, as may excessive travelling demands. Indications of the influence of cultural orientation are also obtained (Orpen op.cit. 1976).

The individual is asked for as detailed a description as he is able to provide of the processes involved in his previous employment. This is followed-up by a telephonic discussion with the employer both to guage his attitude towards re-employment and his assessment of the individual's behaviour and performance at work. A visit to the place of employment is done at a

later stage.

(f) School History

Scholastic standard and degree of literacy are important entry qualifications for trade training facilities and certain types of jobs. In addition, any abrupt curtailment of education will put the level of education into perspective e.g. often a lack of finances cause curtailment of schooling and may be an indicator of untapped intellectual reserves which could be mobilised. Scholastic interests provide additional information on the interest patterns.

(g) Spare Time Pursuits

Many blacks do not have well developed avocational interests. This may be due to long working hours, to a lack of exploration, or the duration of stay in the urban areas. It is important to differentiate causes which are out of the individual's control, and causes which may be related to volitional factors.

Opportunity for exploration of avocational interests during therapy may give the individual a more positive concept of himself as an

occupational entity and uncover latent talents. Participation in organised activities (clubs and church) is an indicator of social skills as well as of cultural orientation. (Grant op.cit 1969).

1.1.2 The Home Duties Checklist

An understanding of the individual's participation in the activities in the home is an indicator of the role played in the home and of interest structure.

The levels recorded are those achieved premorbidly in the case of the newly disabled individual who is still hospitalised.

In the case of the individual who has already returned home, a review of present functional levels in home duties is an indicator of the effect his disability is exerting on his occupational performance and provides a baseline of performance levels.

1.1.3 Review of the Records and Discussions with Medical and Allied Medical Members of the Treatment Team

This is done to obtain a picture of the individual as a pathological entity.

(a) Review of the Medical Records

Information is sought to elucidate the degree of permanent disability expected after maximum recovery, the rate at which recovery is expected, the medical and surgical treatment contemplated and the complications suffered. This is especially important in newly disabled individuals as the prognosis as to work potential is largely dependant on the accuracy of the medical prognosis in these cases.

The cause of the disablement is important as this may have been psychologically traumatic e.g. Case 3 was stabbed by her husband; and Case 4 was shot during the 1976 Soweto riots. Evidence of consultation of traditional healers is important to be informed on as this not only is this another clue as to cultural orientation, but usually means that the individual is unlikely to accept rehabilitative services as cases such as these usually resort to Western medicine to seek cures. He may, at a later stage, after further consultations with the traditional healer be more prepared to accept the permanence of his disability and consequently rehabilitative services.

Further elucidation on the physical and intellectual functioning of the individual may be gained by discussion with the speech therapist, physiotherapist and psychologist, if available. Their respective assessments and prognostication as to the improvement they expect the individual to gain through their treatment is requested.

The individual's behaviour and relationships in these and the ward setting as well as the rate of learning he shows gives a more rounded view of his adaptation to his disability than by only considering these factors in relation to his performance in the occupational therapy department.

1.1.4 The picture of the individual as a psycho-social entity and the demands he was coping with is compared to the picture of the individual as a pathological entity and the reduction of performance skills caused by his disability as well as the degree of permanence this reduction is likely to have (performance potential) obtained. Through this comparison a prognostication is possible of his present and future functional levels in all spheres of occupation including work, particularly previous employment.

1.1.5 Summary of Assessment of Work Potential Yielded by the Preliminary Phase

1.1.5.1(a) The degree to which individuals, whose disability is long-standing, have learnt adaptive skills and the degree to which the disability is obstructing successful occupational function in activity situations to which he has already been exposed.

(b) The degree to which the disability, newly-acquired, is likely to obstruct occupational function and what adaptive skills need to be learnt.

1.1.5.2 The degree to which the individual has matured and developed as an occupational entity pre-disablement and the influence of environmental factors (people, events and opportunities he has had to advance his skills) and cultural orientation.

1.1.5.3 The possibility of return to previous employment both in terms of the individual's and employer's attitudes towards this, as well as in terms of the predicted effectiveness of modifications which can be introduced, and adaptive skills which the individual can be taught.

1.1.5.4 Where return to previous employment is contra-indicated, the factors which support selection of home industry or open labour as the preferred avenue of work and factors which need further elucidation in order to make a definitive selection can be identified. In addition, interest structure and pre-disablement aspirations may give an indication of the type of job to select.

## 1.2 The Interim Phase

Unlike the preliminary phase which utilises the interview, discussions and visits to home and previous work environments, this phase utilises performance observation and evaluation where assessment and therapy are concurrent. Qualitative and quantitative norms however should not yet be overtly applied.

The importance of relating this phase of the occupational therapy process to the assessment of work potential cannot be overemphasised, as the planning of the therapy programme needs to be related to its value in the assessment of work potential if these yields are to be obtained. Valuable indicators of work potential as well as inclusion of preparatory therapy will be missed if this relationship is not clearly established.

The writer took the patient through all phases and this served to further re-enforce the establishment of this relationship. The concept of assessment of work potential or capacity only occurring at the end of the occupational therapy programme, approaching the patient primarily from a pathological rather than a psycho-social perspective and separation of the work assessment unit from the rest of the department in terms of staffing and physical situation, are factors which tend to blur the importance of this interim phase in the assessment of work potential.

This phase has been to some extent, based on the theory of creative ability developed by du Toit (1974) and the work-related programme as described by Lowes (1970). However, several important modifications have been introduced according to the assessment and intervention model developed by Brazier and Lipschitz (1976), the Model of Human Occupation developed by Kielhofner et al (op.cit. 1980 a, b, c, d) and the retrospective studies of five cases as discussed below.

### 1.2.1 Modifications Introduced

(a) While the concept of creative ability is accepted, the sequence of the evolution of this ability, as described by du Toit (op.cit. 1974),

is suspect in its application to adult, physically disabled individuals and a more empirical approach should be used. Exploration should be directed at the acquisition of adaptive and performance skills (e.g. social skills, dexterity, decision-making). Further more, this should be specifically related to the level of maturity and development of the individual as an occupational entity as identified in the preliminary assessment.

(b) Rather than the more general work relatedness proposed by Watson (op.cit. 1970), this phase should be specifically related either to the adaptive skills the individual needed to learn in order to cope with previous employment, or to the elucidation of factors on which further information is required in order to arrive at a more definitive assessment of work potential and the work avenue of choice.

(c) The adaptive skills taught were those which were used by the writer in order to grade the demands of the activities presented to the patient (Brazier and Lipschitz op.cit. 1976).

(i) Selection of activities within the patient's performance skill range and the criteria on which

such selection is based.

(ii) Structuring or method simplification.

(iii) When and how to use aids, mechanical as well as human.

(iv) Coping in different psychological and physical environments.

1.2.2 Description of the Content of the Interim Phase

(a) For the newly disabled individual, in addition to the immediate concerns of personal care and mobility retraining, recreation and home duties programmes are planned. This includes sports, games, educational activities or product centred activities, the emphasis being on the provision of opportunities for exploring altered skills and teaching adaptive techniques that the disabled individual can use to modify activity demands. The product-centred activities may be related to future work, the quality that makes them recreational is more in the way they are presented to the patient than in the type of activity used. A demand / response presentation is avoided. Activities are rather presented in an attitude of invitation, the interest

patterns identified in the initial interview being a guide as to what types of activity are likely to arouse a desire to participate. Furthermore, the individual is encouraged to exercise choice to an increasing degree as he gains confidence in his abilities. Positive feedback is essential if the individual is to develop a positive image of himself as an effective occupational entity. Activities chosen are therefore graded from those in which success is assured moving increasingly to those which require the individual to exert increasing effort in order to succeed; from highly structured to more loosely structured environmental factors; extensive use of aids to more use of method simplification.

Where more time has elapsed since disablement, the extent to which the individual has already learnt adaptive techniques, as indicated by the preliminary assessment, will dictate the extent to which this needs to be emphasised in the interim phase.

It should be noted that the aim during this phase is to teach the individual how to be occupationally functional in spite of dysfunction, the perspective of the individual as

a psycho-social entity always superceding that of the individual as a pathological entity in importance. In a full team context, as at Baragwanath Hospital, it is not thought necessary or desirable to emphasise improvement of individual muscle strength, tone or joint range. This approach is supported by Kielhofner et.al. (op.cit. 1980d), who emphasise skilled use of physical and intellectual function.

For both the newly disabled individuals and those whose disability is long-standing this phase can be important in addressing problems which the individual experienced before the onset of disablement in development of successful work behaviour and performance. This is indicated by the level of maturation and development as an occupational entity identified in the preliminary assessment. Examples of the types of individuals who are likely to have problems of this nature are more tribally orientated individuals whose work experience has been restricted to unskilled manual labour (as case 5) or who have been occupationally deprived (as in case 2) because of social factors or their disability; individuals who are in transitional developmental states e.g. the

amporphous cultural transitional stage where no stable cultural frame of reference is evident, the adolescent or young adult (as in case 4) who is in an age group where the grounding for occupational choice is being acquired or occupational roles are changing. (Kielhofner et.al. 1980b).

1.2.3 The Yields of the Interim Phase in Terms of Assessment of Work Potential

(a) Patterns of problems experienced in occupational performance can be further identified. A summary can be made of elements of activities on which performance has been observed where:

(i) The individual can cope independently without modification or aids.

(ii) Modification of method needs to be applied and what these modifications are.

(iii) Aids need to be introduced.

(iv) The degree to which the environment needs to be structured on physical and psychological levels.

(v) The individual demonstrates technical skill.

Behavioural factors can also be identified. (Etheridge op.cit. 1958).

(vi) Degree of dependency in attitude and the degree to which independent decisions are being made. The influence of cultural orientation as identified in the preliminary phase is noted.

(vii) Social skills.

(viii) Learning behaviour - approach to difficult tasks, the complexity which can be coped with, the rate of learning and retention of information, learnt.

(ix) Motivation.

(x) Indications of the emergence of a new occupational choice.

It is suggested that the significance of the above will be greatly enhanced if the activities performed by the patient have been analysed using a similar method to that used in the job analysis. The method used by Shipham (op.cit. 1974, 1980, 1982) of analysing the activity into processes and elements is preferred

to the method suggested by Weber and Watson (1980) and Clarke (1979b). These latter analyses require a greater degree of guesswork unless fairly sophisticated methods are used to analyse the activity e.g. infra-red sensors, standard ergonomic techniques. These techniques are usually beyond the skills of the occupational therapist.

The enlightment of the performance observation and evaluation gained in the interim phase, seen against the backdrop of the preliminary assessment, serves to consolidate the identification of the direction and avenue of work to be pursued in the final phase.

(i) Return to previous employment is, by this stage, clearly indicated or contra-indicated.

(ii) Trends towards open labour or home industry as the avenue of work to pursue in the final stages are usually clarified. The individual has gained enough adaptive skills and awareness of his capabilities to allow a discussion of the findings to date. Any preferences he may have developed can be utilised in the planning of the final phase of assessment and

preparation for work.

## 1.3. THE FINAL STAGE

The disabled individual should at this stage be functioning at levels approaching maximum function at home. (viz. personal care and home duty performance). He will have been exposed to the attitudes of non-disabled persons in these, more familiar, surroundings and will have developed some insight into his capabilities in terms of future remunerative occupation, potential avenues having been explored. Problems obstructing independent mobility at home and those obstructing independent use of various forms of public transport will have at least have been clarified if not solved.

It remains now to assess his capabilities and prepare him for coping with the more exacting and necessarily uncompromising physical and psychological demands of the real work situation.

This phase also utilises performance observation, the evaluations of performance, however, are done according to the standards of urban industry or the standards the disabled individual will have to impose on himself if he is to have an economically viable home industry.

1.3.1 Further Assessment of Capacity to Return to Previous Employment

Should the preliminary and interim phases have indicated return to previous employment as the avenue of choice, a visit is made to the place of work and the disabled individual's description of his previous work is clarified and expanded. Environmental factors such as work layouts, toilet facilities and access to buildings are recorded. Proximity to transport stops will have already been recorded in the initial interview. In the two cases (Cases 3 and 4) where return to previous employment was indicated, trial placements were used to evaluate productive speed and efficiency, as the volume and variety of the work they were doing (floristry and filing clerk) could not be adequately approximated in the occupational therapy department. The job analysis did not indicate insurmountable obstructions to efficient performance. No further programmes were therefore planned for execution in the occupational therapy department.

1.3.2 Further Assessment of Capabilities of Coping in Other Open Labour

1.3.2.1 Job Sampling and Work Trial methods were utilised to assess other areas of work where the individual had the potential of succeeding. These two methods were chosen because:

(a) Many of the disabled blacks referred to the department required technical training to upgrade their skill levels and this training had to be related very clearly to the methods, procedures and standards found in the various industries. (as suggested by Orpen op.cit.1976). The facilities available for job sampling were in shoe repairing, leatherwork, tailoring, dressmaking, pottery, carpentry.

(b) The infrastructure for utilising these facilities to simulate other types of jobs had not yet been developed and it was felt that a job sampling technique could be used to make the best current use of the available facilities, as well as provide information for their later use in a work simulation programme. The expansion of the facilities was not contemplated as although equipment could be obtained, adequately trained technical instructors could not be attracted by the salary scales offered.

(c) The above approach, however, did mean that an assessment of the individual's capacity for a limited range of types of jobs could be done in the short term. This did not always comply with the interests of

the individuals and work trial was used in these cases, e.g. some patients were placed on a trial basis as switchboard operators at Baragwanath Hospital, and one was placed in the watch repairs training course run by Rotary Club. The trial placement went hand in hand with technical training in these cases. No formal follow-up was done on these cases, they could thus not be included in the case history discussions. However, all of these cases are currently employed. Trial placements of this nature are likely to increase in importance with the expansion of the range of jobs and the training facilities available to blacks.

1.3.2.2 Method Used to Obtain Job Samples

Rather than using job samples developed by TOWER for American conditions, the writer felt it important to formulate her own samples and time norms, based on observations in Johannesburg firms. As mentioned, the available facilities dictated the types of jobs surveyed. Shoe repairing was the first to be investigated, using Rosenberg's (op.cit. 1972) suggestions and occurred in the following stages.

(a) Survey of Job Availability

Two shoe repairing firms listed in the yellow pages of the telephone directory and the orthopaedic workshops at Baragwanath were contacted. The study was explained to them and they were asked whether they would allow the therapist to visit their establishment and carry out the necessary observations and interviews. Most of these firms were very co-operative, one of them was a very large concern and two large shoe repairing shops.

(b) Job Analysis

The results of the job analysis in this latter company are reflected in Appendix C.

It should be noted that the times given were obtained by using a stop watch, as the writer was not familiar with the MODAPTS and other predetermined standard time systems. These times cannot therefore be considered standard, but did provide a rough guide as to times for each process. Workers were placed once they had achieved a minimum time of thirty minutes for one pair of ½ soles and heels. The processes involved were further broken down into elements recorded, as they were

observed. An example as to how this was done is shown in Figure 3.

The reason for doing this detailed breakdown was to allow for identification of the cause of failure to achieve satisfactory qualitative or quantitative standards as suggested by Shipham (op.cit. 1974, 1980, 1982).

Figure 1

Pattern-Making

1 Puts shoe on last.

2 Places sheet of paper over sole of shoe and holds in place with Left hand.

3 Rasps with downward movement, around the edges of the sole keeping the rasp as vertical as possible.

4 Tears pattern along the perforated line made by the rasp.

Quality Standard: The pattern should not be made too small by incorrect angling of the rasp.

There are other more skilled processes in shoe repairing, e.g. welt stitching, but after discussions with employers (one of whom visited the occupational therapy workshop), it was decided that a basic grounding in sticker soles and heels (according to Appendix C) was adequate and that other more skilled processes could be taught by the employer, once the worker had proved his capabilities on sticker sole and heel repair.

Several variations occurred in the orthopaedic workshop, for example, where the process is not as routine as in ordinary shoe repairing. The worker has to learn what the different terms on the job cards mean and what materials are used for each type of modification, e.g. a Metatarsal bar, Lateral outside and Medial inside wedges. The job therefore has a higher level of additional learning involved and a higher number of decision-making-with-trade-knowledge elements. The time set by the employer was therefore longer - $^{3}/_{4}$ hour per modification. The basic tools, machinery and processes involved are however the same.

In the environmental survey, the position of the boot finishing procedure was particularly noted as

this is central to the shoe repairing procedure (see Fig 2 for flow diagram of the number of trips to and from the bootfinishing machine in the sticker sole and heel repair of one shoe, as observed in the occupational therapy department).

The number of trips to and from the bootfinishing machine was also an important observation in the method study of the job. Productive speed can be considerably improved if the shoes, at a particular stage of repair, are accumulated before going onto the next process, as was used in one firm visited.

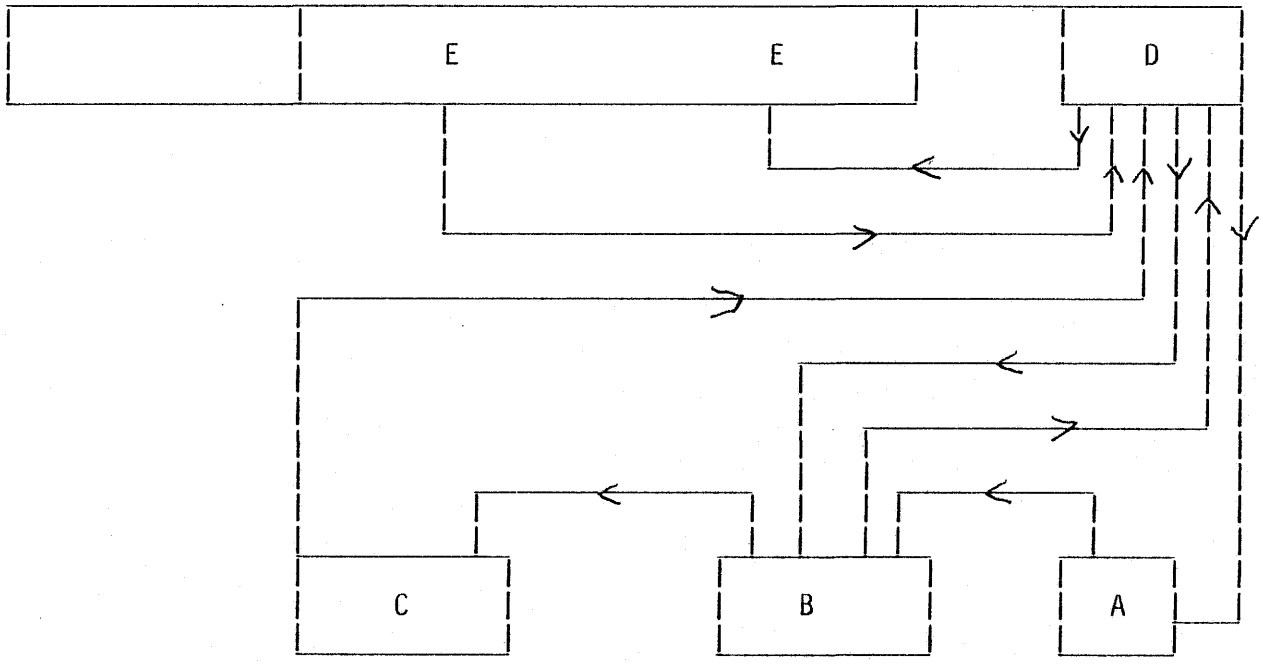
(c) Use of the Job Analysis to Obtain Job Samples

The processes involved were graded from simple where no accuracy or machine use was needed, to complex, where high accuracy and control plus knowledge of machinery was required (Gable op.cit. 1962) and Orpen op.cit 1976).

1 Stripping old heels.
2 Glue application.
3 Dye and polish application.
4 Buffing polished shoes on boot finishing machine.
5 Securing new soles.
6 Pattern-making and marking.

FIGURE 2

FLOW DIAGRAM OF THE MOVEMENT OF A SHOE TO AND FROM THE BOOT FINISHING MACHINE DURING A HALF SOLE AND HEEL REPAIR




A = Receiving Area
B = Striping and Hand Finishing Area
C = Area for Pattern Making, Marking and Cutting of soles and heels
D = Boot Finishing Machine
E = Area for Glueing and Securing Soles and Heels.

7 Cutting heel strips:
   a) by hand
   b) with skiving machine
8 Cutting new soles as marked.
9 Securing and cutting new heels using strips and securing ready made heels (shoe tacks being used).
10 Trimming soles using a knife.
11 Boot finishing machine work
   a) Scraping of sticker soles and shoe soles.
   b) Neatening new heels and ½ soles.
   c) Grinding badly worn heels down to level them.

During the interim exploratory period, the individual who has expressed an interest in shoe repairs, or for whom it is thought to be a possible work avenue, will go through processes 1-7 and 11(a). His capabilities to pursue shoe repairing are evaluated according to the standard of his performance in each process. If this evaluation is positive, he is trained in all processes. If not, he is given the opportunity to explore other available activities graded in an similar way.

In the final phase of assessment, measurement of performance according to quantitative and qualitative

standards is done. Performance on the entire process for one pair of ½ sole and heel repair is measured weekly and the individual is deemed ready to be placed once he is able to complete this in a maximum of thirty minutes conforming to the qualitative norms for each process.

1.3.3 Home Industry Preparation and Evaluation

1.3.3.1 Pursuit of home industry is governed by the following:

(a) The individual's preference

(b) The support given or promised by family.

(c) The exclusion of open labour by medical problems, e.g. fluctuation of performance levels as in rheumatoid arthritis and chronic renal failure.

(d) The exclusion of open labour by social factors such as the availability of jobs or transport (as suggested by Redecker op. cit. 1977 and 1979).

1.3.3.2 Home Industry can be grouped into two main demand levels.

(a) What is tantamount to a small business operation and which is on a higher demand level than open labour.

Individuals who have a strong need for autonomy and who have well developed social skills are more likely to succeed on this level. (as Case 1).

(b) A more sheltered situation where the individual is assisted in the marketing of his goods and obtaining materials. This is on a lower level of demand than open labour, and a higher demand than sheltered employment, in that the individual still has to exercise self discipline in working for a regular number of hours and maintain his standard of output. Individuals who are likely to require this are those who have poorly developed social skills and have dependancy needs. (as Case 2).

The procedure of home industry training must therefore be done in such a way as to elicit information as to which demand level can be coped with by the individual. A procedure similar to that used by Redecker (op.cit. 1977, 1979) is utilised by the writer, the main difference being that individuals are mainly out-patients and have access to customers and material sources outside the hospital.

1.3.3.3 Procedure of Home Industry Training

(a) The activities selected for home industry training are primarily those which have a market in Soweto. All the activities available in the Baragwanath occupational therapy department have home industry potential, those connected with clothing however, have proved most popular.

(b) The individual uses the hospital materials, machinery and equipment during the training period, until he is able to make articles of saleable quality. He is then expected to sell his produce and buy his own materials. Once he is selling enough articles to cover his material expenses for one month, he is expected to start saving money for tools and desposits for machinery. In some cases, the family assisted in putting down the deposit for the machinery and the individual paid the installments out of his earnings.

This is insisted on for all cases because it was found with earlier cases that when machines were provided from donations, individuals did not develop the necessary concept of themselves as self-reliant, independent entities and dependancy was encouraged. At the suggestion of

the black craft instruction staff, the method described above was introduced.

This has proved to be a valuable way of predicting future success on home industry, as from the outset the training is geared to the demands the individual will have to cope with in order to succeed once he leaves the hospital.

The individuals are encouraged to buy their own materials either themselves, or with the aid of a family member. It has been found that even wheelchair bound cases have developed such a degree of autonomy that they travel to town once a month, using taxis, and buy their own materials. If too much assistance is given in the initial stages, such skills are not encouraged to develop.

(c) Marketing is done usually through the orders of hospital staff initially. At a later stage, however, the individual is encouraged to develop a market outside the hospital through friends, relatives and on occasions, businesses and philanthropic organisations. In other words, the method of marketing best suited to the individual is established during the preparatory stages of home industry.

(d) When the individual has learnt to provide a wide enough range of goods and is producing them at a high enough standard and rate (e.g. two jerseys per day, or one ladies two piece suit in two days) he is considered ready to continue his industry at home. Some individuals prefer to continue working in the department until they have completed payments of their machinery.

(e) The keeping of very basic records on income and expenditure was taught.

(i) An order book where size, colour and type of garment ordered is recorded together with the name of the customer and date of order.

(ii) A book where expenditure is recorded either by glueing in cash slips or receipts or by writing in date, item and amount.

(iii) A receipt book (small pen carbon book).

(iv) A list of suggested prices for different sizes and types of articles was provided.

(ii) and (iii) above could be

replaced by two savings books in a local bank or building society if literacy skills were poorly developed. One was kept exclusively for home industry deposits and withdrawals and the other was used for income from other sources and household expenses.

## 2. RETROSPECTIVE CASE STUDIES

### 2.1 Case Study 1

**NAME:** Mr E. H.
**AGE AT DATE OF FOLLOW-UP:** 29 years old
**ETHNIC GROUP:** Zulu
**SEX:** Male
**DATE OF ONSET OF DISABLEMENT:**
16th June, 1975.
**DATE OF INITIAL INTERVIEW:** 4 November 1978
**DATE OF PLACEMENT:** August 1979
**TREATMENT PERIOD:** Ten Months
**DATE OF MOST RECENT FOLLOW-UP:**
10th February, 1983.

#### 2.1.1. Review of Clinical Records

(a) Preliminary Assessment

**INITIAL INTERVIEW**

**Area of origin and contact with relatives in the Homeland areas.**

E.H. was born in Newcastle, where his parents still live. He came to Johannesburg as a migrant worker between 1970 and 1975. From 1975 he stayed in Newcastle with his parents, until his cousin, a nursing trainee brought him to Johannesburg in November 1978 to seek occupational therapy services. Contact with parents in Newcastle still very strong and viable.

**Home Environs Survey**

Accommodation arrangements were made with an aunt in Senoane, Soweto for the duration of the home industry training. No further details were recorded.

**Financial Responsibility**

Nil at the time of initial interview.

**Family Relationships**

This was not recorded at the time of initial interview, but it can be inferred from the fact that E.H. consulted his family before any major decision was made in the traditional manner. The family was therefore giving very positive support and security to him in his adaptation to disabled living.

**Work History**

His last job was with Roberts Construction company as a pipe grinding machine operator. He had made no attempt to return to this employment subsequent to his injury. Period of employment in this job was from 1970 - 1975.

Working conditions, hours of work, travelling and attitudes to this job were not recorded. This was the first and only job E.H. had had and he had been unemployed since 1975.

He had already made a very firm and definite choice to establish a machine knitting home industry, and had come to Baragwanath specifically to be prepared for this avenue of work. The family had discussed the matter and the decision had been made on the advice of his nursing trainee cousin. His reference book was registered in Newcastle.

**School History**

E.H. had been educated in Madadeni, Natal, and had achieved a Standard 3 education. He was fully literate in Zulu and could speak a little English.

**Spare Time Pursuits**

Informal football was the only spare time pursuit engaged in pre-disablement. Post-disablement, E.H. had withdrawn from all activity participation and was becoming very depressed. This was why his family decided to take positive action.

<u>Retrospective Interpretation of Initial Interview Data</u> (refer page 51)

**Cultural Orientation:** Traditional.

Exploration and decision-making around the issue of occupational choice had been very limited, both on vocational and avocational levels. E.H.'s family had

played a dominant and supportive role in the decision to pursue home industry.

Patterns of achievement, vocational and avocational interests and solidification are not clearly discernable because of E.H.'s youth at the time of injury, his subsequent withdrawal and lack of detail on school and work histories.

**Medical Background**

This was obtained from the patient as he received most of his medical treatment at Ingwelezane Hospital in Natal and only a brief record of the casualty officers findings were available at Baragwanath.

**Disability:**

Left Brachial Plexus lesion (C, 5,6,7 most severely affected).
Left through hip amputation. Prosthesis supplied and physiotherapy treatment was given at Ingwelezane Hospital. The patient was able to walk with the aid of a walking stick. Walking tolerance was good, speed was slow.

**Cause:** Motor Vehicle Accident

**Date Injury:** 16th June 1975.

**Previous Relevant Injuries or illnesses -** nil.

**Medical Treatment and Complications** were not known.

**Prognosis** for further recovery appeared poor in view of the length of time lapse since injury.

The Home Duty Checklist was not used, but cousin stated that E.H. had been sitting at home doing nothing. He was however fully independent in all aspects of personal care. He was also fully mobile indoors, outdoors and able to cope with public transport.

The Preliminary Assessment gave clear direction to the avenue of work and the type of job to pursue.

**THE INTERIM PHASE**

The interim phase of the assesssment was devoted to exploration and acquisition of adaptive and technical skills in machine knitting only, no other activities were included. The process requiring most attention in terms of adaptive skills being the stitching up of garments, where speed was slow. It was necessary for patient to pin seams together to stabilise them for stitching. Patient however learnt quickly and within two months was able to start selling his garments, mainly through hospital staff. In January 1979, he used some of his previous savings to put down a deposit for a double bed P.B.8

knitting machine (R100 with R15 installments per month for two years).

**Interpretation of Assessment Yields**

Rate of learning and retention of material learnt was excellent. Patient was able to cope with the level complexity of information taught quite comfortably.

**Motivation:**

Excellent - took positive and decisive steps to realise his goal of establishing a machine knitting business. Family support which E.H. received reinforced this positive approach.

The direction chosen by E.H. and his family was confirmed as a suitable avenue of work to pursue, dexterity requirements being within his capabilities in most elements of machine knitting.

**THE FINAL PHASE**

The final phase of assessment and preparation for home industry followed the method described, and further preparation included expansion machine knitting skills to include different types of articles and patterns as well as improvement of productive speed. By August 1979, E.H. had already completed payments on his machine, was buying his own materials and was earning a gross profit of R180-00 per

month. Weaning of reliance on hospital customers still had to be consolidated, but E.H. felt secure and accomplished enough to continue his business at home.

**FINDINGS ON FOLLOW-UP**

FOLLOW-UP QUESTIONNAIRE FOR PATIENTS
ON HOME INDUSTRY PROJECTS

NAME: E.H. DATE: 10.2.83

TYPE OF HOME INDUSTRY: Machine Knitting

1 Why did you choose to do the above home industry
**I was sitting at home doing nothing and getting very depressed. It was decided after a family discussion that I should learn machine knitting.**

2 Would you prefer to be employed on the OLM ?
Yes ..... No **No** Give reasons for your answer.
**Because I can't earn as much money in a factory as I am doing now.**

3 INCOME & EXPENDITURE

a) How do you estimate your income & expenditure ?
**I have a savings book for my business.**

b) What is your gross monthly income: **R300 Summer R350 - R600 in May, June and July.**

c) What is your Monthly expenditure on
Materials: **R70 - 150 Bought in bulk at the beginning of each month. Buys regularly from**

the same firm and gets a discount.
Machinery & Equipment: Nil
Transport: R2,00 for a taxi, sometimes a nephew who has a car takes him to town.
Additional Labour: Lady next door employed for stitching up garments during very busy times. Salary on pro rata basis.

4 HOW DO YOU MARKET/ADVERTISE YOUR GOODS?

a) Through Commercial Outlets: NO
Philanthropic Organisations (Specify): NO
Through Friends/Family: YES, especially through one family member who works at an old age home.
Through Word of Mouth Customers: YES

b) What range of articles do you manufacture?
Cardigans and Pullovers for school children and adults. These sell particularly well at the beginning of the year. Two and three-piece suits and dresses in lightweight cotton or wool - sell particularly well between May and August.

c) Which of these sells best and why?
See above.

d) Is there any seasonal change in the range and quantity of goods you sell? Yes Yes No.....
Where do you get income from during slack periods?
Earnings are still adequate in slack periods.

7 WHAT PROBLEMS DID YOU EXPERIENCE WHEN SETTING UP YOUR BUSINESS IN

Family Attitudes None, family helped very much.
Space to Work: Yes

Marketing: On leaving the hospital, there was a temporary slump due to loss of customers there, but business recovered quickly through family's contacts.
Obtaining Materials: No
Manufacturing: NO
Financial Matters: Would like to learn more
Capital: No
Payment by Customers: No (See below)

8 HOW HAVE YOU SOLVED THESE PROBLEMS
Payment by Customers - New customers are requested for half the cost of the garment as a deposit. Old customers may be given the garment, with an arrangement to pay at the end of the month. Some customers pay in advance, especially when the demand is high. Does have customers who do not pay, but very few.
Space - Has financed the building of an extra room.

9 WHAT PROBLEMS ARE YOU STILL EXPERIENCING AND HOW DO YOU PROPOSE TO SOLVE THEM
Space - but the room is nearing completion.

10 ANY ADDITIONAL INFORMATION WHICH YOU FEEL WILL ASSIST US IN HELPING FUTURE PATIENTS TO PREPARE FOR A HOME INDUSTRY
Nil

11 WHAT ARE YOUR FUTURE PLANS FOR YOUR BUSINESS
Wishes to go into partnership with a coloured patient who was also trained in machine knitting at Baragwanath. The reason for wanting to do this is because this man had extensive sales and marketing experience pre-disablement and E.H.'s

weakness is in this area.

Has also bought another machine and is presently teaching his cousin to do machine knitting as sometimes E.H. cannot cope with the volume of orders.

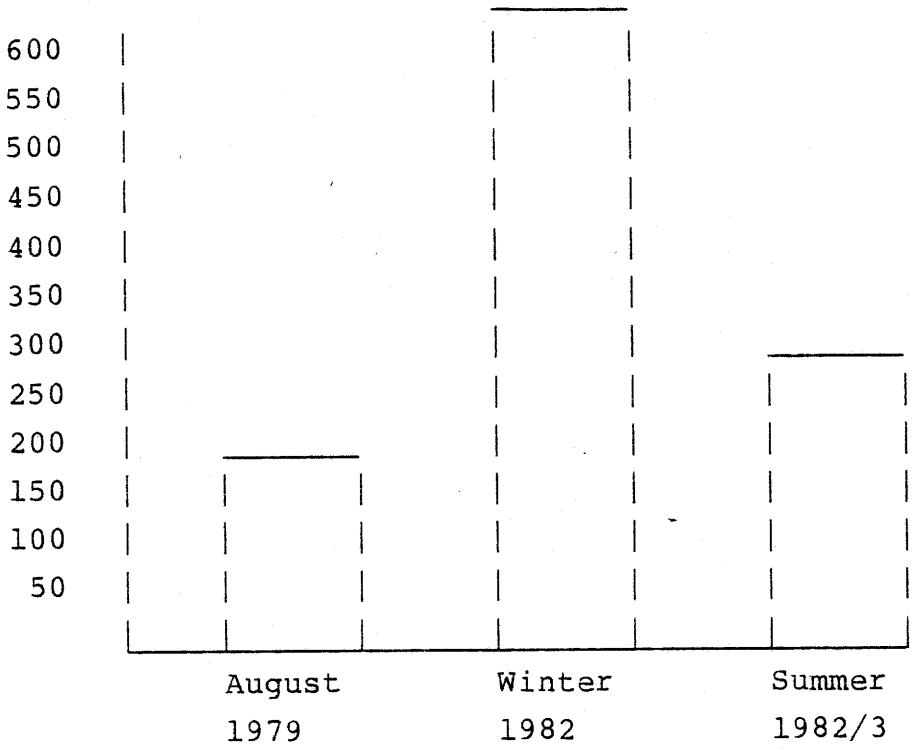
## EVALUATION OF ASSESSMENT PROCEDURES

The procedures described on pages 83 - 86 were accurate predictors of E.H.'s capacity to successfully establish a home industry.

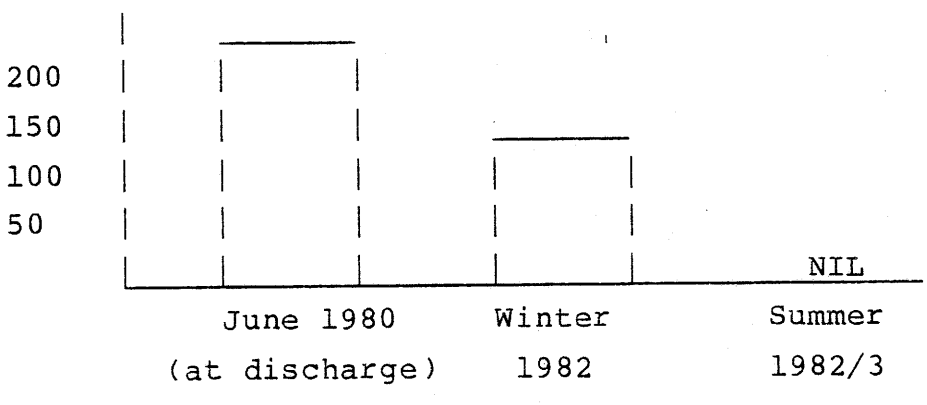
The initial interview was extremely abbreviated and lacking in detail. However, in this case, this did not influence the results of assessment and preparation.

The most positive feature in this case was the strong, secure and supportive role assumed by his family. It is thought that because of this positive input, E.H.'s volitional system was strong enough to accept the challenges presented by the establishment of a machine knitting business. The success he has achieved is encouraging further seeking of new challenges and desire for increased competence and achievement. Income has steadily increased since discharge. The therapist in this case acted mainly as an advisor and provider of facilities.

FIGURE 3
Home Industry Earnings of Cases 1 and 2




CASE 1




CASE 2

## 2.2 Case Study 2

**NAME:** Mrs M.N.
**AGE:** 41 years old (on 10.2.83)
**ETHNIC GROUP:** Southern Sotho
**SEX:** female
**DATE OF ONSET OF DISABLEMENT:** 13th January 1975
**DATE OF INITIAL INTERVIEW:** March 1975
**DATE OF PLACEMENT:** June 1980
**TOTAL PERIOD OF THERAPY:** 19 months

### INITIAL INTERVIEW

#### Place of Birth and Contact Maintained with Relatives in Homeland Areas

M.N. was born in Lesotho and came to South Africa with her parents at the age of ten years. She has a sister in the Free State but has lost contact with her.

#### Home Environs Survey

Lives with her "little mother" (mother's younger sister) in Meadowlands, Soweto. Discussion with M.N. on 3rd June 1975 revealed that there was no electricity and that the pathway to the outside toilet became muddy during rainy weather which could obstruct independent mobility.

#### Financial Responsibilities

"Little mother" was the only regular wage earner in the family. M.N.'s severely

athetoid cerebral palsied son received a disablity grant. "Little mother" therefore assumed the major financial responsibility. M.N. occasionally obtained washing and ironing jobs to swell the family purse.

**Family Relationships**

Husband had left M.N. at the birth of her cerebral palsied son. M.N. very attached to her son, he being the only close relative she has. Relationship with "little mother" not recorded nor was it possible to meet her as she was working.

**Work History**

M.N. had stayed at home for most of her adult life in order to care for her son. Occasional "piece jobs" were done - washing and ironing. She was responsible for the housework. No further details were recorded. M.N. had no plans for the future. Her reference book was registered in Johannesburg.

**School History**

M.N. had only started school attendance when her parents brought her to South Africa at the age of ten years. She completed Std. 1 when her mother, who suffered from diabetes, fell ill. M.N. left school to care for her mother and was married at the age of fifteen years. She

never therefore had the opportunity to return to school.

Spare Time Pursuits

These were very non-specific except that she belongs to the "Brothers and Sisters" church. She expressed a desire to learn knitting for her interest.

The information related above was gleaned at various stages during the therapy programme as the original initial interview lacked detail. Having collected the information together, however, a pattern begins to emerge and a clearer view of M.N. as a psycho-social entity is obtainable.

Retrospective Interpretation of Data Gained During the Initial Interview

Cultural orientation: more traditional than western although western influences are discernable - church affiliation.

Life circumstances severely restricted her development - mother's illness, early and unsuccessful marriage, her child's problems and she now had the additional problems of a disability. The one area where she had developed skill was in the domestic area and care of sick people. this should have been capitalised on in later treatment.

## Medical Background

**Disability:** As recorded on 14th January 1975. Paraparesis left by weakness Sensory level T4 with saccral sparing. Visual acuity was decreased:
Right eye - counts fingers at six inches.
Left eye - total blindness.

**Cause:** Neuromyelitis Optica - a rare disease amongst blacks.

**Prognosis** for recovery was uncertain.

Other sensory modalities were tested informally. Sound localisation was poor in lateral fields but good in the middle ranges. Smell discrimination was poor - was able to identify soap, coffee and Vicks but not tobacco, polish, tea or pepper.

Patient was receiving routine physiotherapy for maintenance of joint range, muscle strengthening of the lower and upper limbs with a view to gait re-education.

## Retrospective Interpretation of Data Collected During Preliminary Assessment Using Kielhofner's Model of Human Occupation

Performance skills were limited to domestic skills and care of the sick.

Successive failures in all aspects of her life plus the added problem of her disability was a recipe for poor development of the patient's volitional systems which was confirmed in the interim phase.

The adaptive skills which the patient needed to be taught was the use of her remaining sensory modalities to compensate for her lack of vision.

The dual problem of paraparesis plus visual acuity deficits placed severe restrictions on mobility. Adaptive skills which were incorporated were primarily those which were needed for wheelchair to bed, toilet and bath transfer.

Cultural orientation was more inclined to traditional. Assessment of work potential was difficult to obtain both because of her lack of skills and the uncertainity of her prognosis. However, it is seen with hindsight that more emphasis should have been placed on her domestic skills and talent in the care of sick people.

**INTERIM PHASE**

This concentrated on the teaching of adaptive skills to compensate for visual defects. Paraparesis was rapidly resolving and no adaptive skills were needed. Activities used during this interim phase were cooking and hand

knitting. Adaptive skills taught in cooking were the use of sensory discrimination to check when potatoes, pumpkin, carrots were peeled properly and to chop cabbage finely.

The development of a routine was important both in the placing of utensils and the performance of these tasks. As mobility improved, the patient was familiarised with the layout of the occupational therapy kitchen and was encouraged to fetch ingredients and utensils from the cupboards. She was lastly taught how to work safely at the stove. A similar familarisation and teaching of independent mobility in the ward was done.

Adaptive skills taught in knitting were mainly sensory discrimination and the use of kineasthetic clues to locate the needle correctly. Vision was returning in the left eye and colour perception was possible. However, M.N. could not distinguish between very similar shades of colours. The choice of bright coloured wool and contrasting knitting needles e.g. yellow and clear blue facilitated the use of residual vision. Good progress was shown and a garment was completed.

Obstructions to independent mobility at home were discussed with the patient the main problems being inadequate lighting at night (used candles) and a sandy pathway to the outside toilet which became muddy

during rainy weather.

Patient was discharged home on the 13th June 1975. Very erratic attendance thereafter was maintained and was seen once on 29th September 1975 and then on 22nd January 1976. The patient reported that she was coping with all home duties. Walking speed and tolerance were normal and only needed the aid of a walking stick. She could however not negotiate unfamiliar surroundings and streets. This was hampering her continued attendance as she had to pay for an escort. She was taught how to pick up drops and uneveness in the ground using her walking stick, by a therapist who was also a trained mobility officer. Long cane technique was thought unnecessary as the patient had a visual acuity at this stage of counts fingers in the right eye and hand movements in the left eye.

A disability grant was applied for.

No further attendance was noted after May 1976 until January 1979 when the patient expressed a desire to learn machine knitting with a view to future remuneration.

<u>Retrospective Interpretation of Assessment Yielded by the Interim Phase</u>

The patient learnt well and coped in the structured, protected environment of the

hospital. She also successfully carried over adaptive skills taught in the area of domestic skills which she had already obtained competence in pre-disablement. This brought her to the same level of functioning that she had reported on initial interview. It is felt that at this stage more exploitation of her domestic skills in terms of remuneration was indicated but was not done as the significance of the information gleaned in the assessment was missed. Her reliance on the therapist was overemphasised and seen as a contradiction to open labour while her achievements in the domestic area were under-emphasised.

**FINAL PHASE**

The preparation for the establishment of a home industry in machine knitting was pursued with. During this period, because this was a new area where the patient had not developed confidence, dependency needs were apparent especially in the marketing of her garments and saving money for a machine which she felt was an impossibility. However, in December 1979 she had saved enough money for a deposit on her machine from her earnings and was justifiably proud of her achievement. Her standard of work on a limited range of articles was fair and number of orders grew until she was earning between R80,00 to R100,00 per month.

Elements of machine knitting where adaptive skills were needed were: casting on stitches, shaping and checking work for dropped stitches.

In these areas use of kineasthetic clues, sensory discrimination and development of routine had to be employed as the patient's visual acuity was inadequate.

M.N. was able to travel to and from the hospital independently using public transport. In June 1980 M.N. was discharged to continue her machine knitting industry at home.

FINDINGS ON FOLLOW-UP

Informal follow-up showed that M.N. maintained her earnings of R80,00 to R100,00 after discharge for a short period. However, gradual decline occurred until at the time of the last follow-up she had earned nothing for the previous six months. She had a box of jerseys which she continued to produce but could not sell. Her standard of work was good.

M.N. has been referred to the Transvaal Association for Blind Blacks for assistance in marketing her garments.

# FOLLOW-UP QUESTIONNAIRE FOR PATIENTS ON HOME INDUSTRY PROJECTS

NAME: M. N. DATE: 10.2.83.

TYPE OF HOME INDUSTRY Machine Knitting

1 Why did you choose to do the above home industry
Because of guidance from O.T. Didn't know how to go about her future re gainful employment.

2 Would you prefer to be employed on the OLM ?
Yes YES No ..... Give reasons for your answer.
1. Because of slowness of business in summertime
2. Because of difficulties in mobility and marketing
3. Because of competition from two other machine knitters in area.

3 INCOME & EXPENDITURE

a) How do you estimate your income & expenditure ?
Knows that out of one cone @ R3,30 she can get two jerseys sold for R9,00 and R15,00 with a net profit of R15,70.

b) What is your gross monthly income: Winter R50 / R60 per month. Summer - Nil

c) What is your Monthly expenditure on
Materials: 20 X R3,30
Machinery & Equipment: Nil - has completed her machine installments.
Transport: Travels to town by bus
Additional Labour: Nil

4 HOW DO YOU MARKET/ADVERTISE YOUR GOODS?

a) Through Commercial Outlets. No
Philanthropic Organisations (Specify) Church Minister has offered, but Mary says she is lazy to do the knitting.

Through Friends/Family. No
Through Word of Mouth Customers. No

b) What range of articles do you manufacture?
Suits/Skirts/orders
Makes school jerseys to establish a stock

c) Which of these sells best and why?
School jerseys.

d) Is there any seasonal change in the range and quantity of goods you sell? Yes YES No.....
Where do you get income from during slack periods?
Disability Grant

7 WHAT PROBLEMS DID YOU EXPERIENCE WHEN SETTING UP YOUR BUSINESS IN

Family Attitudes NO
Space to Work YES
Marketing YES - still has problem
Obtaining Materials NO
Manufacturing YES - in finishing (crochet) of skirts
Financial Matters YES - obviously not maintaining income and expenditure properly.
Capital. No
Payment by Customers YES

8 HOW HAVE YOU SOLVED THESE PROBLEMS

**Potential solution for marketing through Church Minister, but has not used this source.**

EVALUATION

While the problems of the patient as a pathological entity were successfully dealt with using the method of teaching the adaptative skills suggested on page 65. The skills and prowess the patient had attained as a psycho-social entity were underemphasised. The treatment was therefore unnecessarily protracted with poor results. Kielhofner's Model of Human Occupation served as a most useful framework for interpretation and highlighting this.

The information recorded during the interim and final phases however gave accurate prediction of follow-up results. The procedures described on pp. 83-86 were accurate predictors of M.N.'s capacity to cope with home industry. The information gleaned was however misinterpreted.

M.N.'s strongest point was the performance skills and competence she had developed in domestic duties and care of sick people. It was incorrect to attempt to give her performance skills in a new unfamiliar area. This did not serve to strengthen

her volitional system which was her weakest point. She did, however, function well in the more structured environment of the occupational therapy department and with the necessary assistance in marketing should be able to revive her home industry.

## 2.3 Case Study 3

**NAME:** Mr. J.M.
**AGE AT DATE OF FOLLOW-UP:** 28 years
**ETHNIC GROUP:** Tswana
**SEX:** Male
**DATE OF ONSET OF DISABLEMENT:**
25th August 1976
**DATE OF INITIAL INTERVIEW:** 13 September 76
**DATE OF PLACEMENT:** 7th September 1977
**DATE OF FINAL FOLLOW-UP:** 12th May 1983

### INITIAL INTERVIEW

An abbreviated initial interview was done on 13th September 1976. Further information obtained during informal follow-up discussions with the patient is also recorded in this section.

### Area of Origin and Contact with Relatives in the Homeland Areas

J.M. was born in Soweto and all his family are also living there.

### Home Environs Survey

Lives in a six roomed house (including an inside bathroom and kitchen) with his mother, two elder sisters and their two children, one brother-in-law, one brother and one younger sister.

**Financial Responsibility**

J.M., his one sister and her husband were the only regular wage earners. J.M. gave his mother his entire salary at the end of the month and she decided what to use it for. Mother supplied him with money for his personal use as he required it. Brother was an erratic worker.

**Family Relationships**

Parents were divorced in 1966. J.M.'s family therefore had a matriarchal structure. Brother appears to be an unstable personality. J.M. however, related well to his family members.

**Work History**

J.M. was employed as a filing clerk with Guardian Liberty Life Assurance Company. Address - Liberty Life Building, Wolmarans Street.

Period of employment: 11th November 1975 - 25th August 1976.

No special training other than initial orientation was given.

His salary was R165,00 per month.

Hours of work - 8.00 am to 5.00 pm.

The company was a large one with several opportunities for promotion if J.M. could improve his education. J.M. was satisfied with this job as a source of income until he could complete his studies. His eventual aim was to go to University and become a psychologist. This job was obtained immediately after leaving school and J.M. had consequently no other work experience. His reference book was registered in Johannesburg.

**School History**

J.M. went to school in Soweto and was continuing his studies by correspondence through Damelin College. He had achieved a Standard 8. He had left school because he wanted to earn money.

**Spare-Time Pursuits**

These were done at the weekends and in the evenings and included going to the cinema watching soccer and studies. The things he wanted to do in the future were connected with improvement of his education.

**Discussion with Employer**

J.M.'s employer visited him during September 1976. He expressed a great deal of concern about J.M.'s injury and promised as much support as he was able to provide. The writer discussed the

possibility of return to work at a later date. Employer was non-commital and suggested that the therapist contact him again when it was felt that J.M. was ready to resume work. J.M.'s performance at work was discussed with him and he reported that J.M. was an intelligent, well liked employee whose standard of work was most satisfactory.

## Retrospective Interpretation of Data Collected

A definite Western orientation was evident both in spare time pursuits and in future goals.

J.M. was in the process of consolidating the basis for achievement of these goals and was in a transitional stage of development from an occupational point of view. Two environmental influences were operating. At home, a possible negative influence of the unstable family relationships. This did not appear to be obstructing J.M's development at the time of injury . At work, the positive attitude and concern of his employer augured well for future resumption of previous employment.

## Medical Background

**Disability:** Paraplegia with total motor and sensory loss below T12. Bowel and bladder function was also lost.

Associated with this injury J.M. suffered a right haemopneumotharax, damage to the liver and diaphragm.

**Cause:** A gunshot wound. Entry of the bullet being in the right chest wall. This was sustained during the unrest in Soweto.

**Medical Treatment**

A laparotomy was performed on 25.8.1976. The liver and diaphragm were repaired.

**Complications:** J.M. developed multiple pressure sores during the early stages of his hospitalisation and this necessitated confinement to bed until the 19th January 1977, for conservative treatment of the sores.

His prognosis for recovery of paraplegia was not clear, but a likelihood of permanence of total paraplegia was expressed by his doctor.

J.M.'s physiotherapist predicted a good walking prognosis.

Return to previous employment was not affected by J.M's disability provided adequate transport arrangements could be made.

INTERIM PHASE

The long period of confinement to bed imposed additional psychological stresses and a supportive recreation programme was essential. J.M. expressed a desire to continue his studies, to be provided with painting and drawing materials (an art group was being run for the paraplegics at that time, and this choice of activity was stimulated by this) and for light reading material.

Despite his strong desire to continue with his studies during this period, J.M. was later advised to leave them until a later stage in his rehabilitation, as he could not concentrate and they were becoming a source of stress, rather than of relief from stress.

When he was allowed out of bed, therapy centred around wheelchair drill, basic personal care, retraining, the continuation of the recreation programme and resumption of studies.

As his walking improved, J.M. was encouraged to use it in the ward and in the occupational therapy department. He was however reluctant to do so, preferring wheelchair mobility.

In August 1977, J.M. was taken to his place of employment for a visit. This was done as he expressed anxiety about

reactions of fellow workers and employer towards him. During this time a job analysis was done.

Filing Clerk Duties

Letters were coded according to numbers and sorted by another worker.

The sorted letters are filed by the filing clerk in numerical order. The worker needed to understand the numerical coding used and know where to look for the appropriate file. These were stored on shelves ranging from floor height to approximately one metre below ceiling height . This presented problems and the practicality of modifying this element were discussed with the employer. The employer felt that correspondence sorting would be a preferable job. This job was observed, and the following processes were noted:

1 Correspondence was sorted according to policy numbers quoted.
2 New files were continually being added, and these needed to be labelled and numbered. No mobility was required as correspondence was brought to the worker and taken from him by other workers.

**Environmental Survey**

Access to the building presented no problems, there being no steps and elevators. Toilet facilities were however situated in between floors and a steep flight of steps had to be negotiated. Enquiries were made and a toilet on ground floor proved accessible.

Transport problems were discussed and the employer's were prepared to transport J.M. to and from the taxi rank in West Street. This was the best solution that could be found, but was not very satisfactory, especially during bad weather conditions. Cripple's Care Association later provided transport.

The visit to the firm proved most beneficial in alleviating J.M's insecurities about fellow employees and employer's attitudes towards him in his disabled state.

J.M. resumed work on 7th September 1977.

Subsequent telephonic follow-ups revealed that after an initial adjustment period, J.M. settled into the work routine very well and employers were satisfied with his performance.

J.M. started saving money to buy a car and managed to save enough money within eighteen months for a down payment. He

requested advice on conversion of the car to hand controls and was put in touch with the relevant persons.

In December 1979, J.M. visited therapist and requested information on sexual problems, as he was contemplating marriage. He was referred to the neuro-surgeons and the social worker. He was advised and asked to bring his girlfriend for counselling as well. Girlfriend, however, when confronted with the real possibility of marriage, severed the relationship. This was very traumatic and J.M. started drinking heavily with subsequent deterioration of work attendance and punctuality - a problem which has not yet been resolved. J.M. currently has a relationship with an older woman which he feels is not beneficial to him, but at the same time finds difficult to sever.

FINDINGS ON FINAL FOLLOW-UP

OPEN LABOUR FOLLOW-UP
WORKER'S QUESTIONNAIRE

NAME OF WORKER: J.M. O.T.No: .....

DATE OF FOLLOW-UP: 12th May, 1983

DATE OF PLACEMENT: 7th September, 1977

1 Have there been any changes in any of the following:

Home Address: NO
Home Telephone No: 949-0822
Place of Work & Why: NO
Type of Job & Why: NO
Immediate Boss: MR POKPAS, 1981
Telephone No: 712-9111 X 2124
Travelling Arrangements:
CRIPPLES CARE - 6.00 a.m. & 4.30 p.m.
Hours of Work:
7.30 a.m. & 4.30 p.m. (½ hour earlier am & pm)

2 What is your present salary?
Gross R380. Deductions R100,00 for pension.

3 Have you had any promotion or is any promotion being considered?
Employers mentioned that they would like to give him a more interesting job. This was possible if he improved his education.

4 Do you have any problems coping with the amount of work?
NO

5 Do you get on well with your boss/fellow workers?
YES. (Employer mentioned in discussion that J.M.'s social relationship with fellow-workers was a strong point in his favour)

6 Is there anything you do not like about the job
NO - is satisfied with his present job.

7 How would you suggest the above could be improved?
**Not applicable.**

It was further revealed that J.M. had discarded his plans to become a psychologist and had lost all interest in furthering his studies.

OPEN LABOUR FOLLOW-UP
EMPLOYER'S QUESTIONNAIRE

NAME OF FIRM: GUARDIAN LIBERTY LIFE
ADDRESS: 1 Ameshoff Street, Braamfontein
TEL. NO: 712-9111 Ext 2124

NAME OF INTERVIEWEE: V.G. POKPAS
NAME OF WORKER: J.M. O.T.No ....

If any answers are negative, please specify problem areas.

1 Are you satisfied with workers productivity rate
YES. Jacob is an above-average producer. A problem in his productivity is that he is very difficult to motivate and this results in fluctuating production and performance.

2 Are you satisfied with workers standard of work
YES. He is au fait with all the aspects of his work.

3 Are you satisfied with his work habits (punctuality, organisation of time, neatness, etc)?
This causes problems regularly. I think the cause of many times can be linked to his social problems. He needs to be understood.

4 Are you satisfied with his general attitude towards the work, towards your authority, and towards other workers.
His general attitude is basically good, but there are occasional deviations.

5 Additional Information.
Employers felt that a less repetitive job may give J.M. more enthusiasm for his work. Promotional opportunities were available provided he improved his education.

## EVALUATION

The assessment and preparation for return to previous employment was accurate for J.M.'s capabilities at the time of placement. However, he was injured at a critical time in his life where a great deal of exploration and change was occurring, but not yet consolidated. Kielhofner et.al. (1980b) suggest that during these periods, the individual is at high risk in terms of the possibilites of maladaptation. J.M.'s disability imposed yet another difficult adaptation process which he was beginning to come to grips with in his working life when his marriage plans failed.

Work trial was used as the method of assessing ability to cope with the qualitative and quantitative requirements of the employer.

This case is an illustration of the need for a well developed support system in the community, which is readily accessible and can maintain follow-up and counselling for problems such as J.M. was experiencing.

## 2.4 Case Study 4

**NAME:** J.P.
**AGE:** 31 years at the date of final follow-up
**ETHNIC GROUP:** Tswana
**SEX:** female
**DATE OF INITIAL INTERVIEW:** 20.8.79
**DATE OF FINAL FOLLOW-UP:** 12.5.83
**DATE OF PLACEMENT:** October 1980

### INITIAL INTERVIEW

This was not very detailed. Additional information recorded at other stages during treatment is included in this resumé.

### AREA OF ORIGIN AND CONTACT WITH RELATIVES IN HOMELAND AREAS

J.P. was born in Soweto and has lived all her life there. She has relatives in Rustenburg with whom contact is closely maintained. Her young brother is staying with them and attending school there.

### HOME ENVIRONS SURVEY

House permit is held by her mother. The house has 2 bedrooms, a kitchen and sitting room. There is one tap and a sink in the kitchen. Toilet facilities are located inside the house but there was no bathroom. She washes in her bedroom using a basin. She lives with her mother and

two sisters, J.P. being the eldest.

FINANCIAL RESPONSIBILITIES

J.P. pays for most of the household expenses, her mother's salary being used to finance her brother's schooling and maintenance.

FAMILY RELATIONSHIPS

J.P. was married in 1975, however, husband stabbed her resulting in her disability. J.P. instituted court proceedings and he was jailed for six years. She had no children. Relationships with her mother and siblings were stable.

WORK HISTORY

J.P. was working as a florist at the time of her disablement.

**Name of Firm:**
Peter Wests Florists, Sanlam Centre, Randburg

**Telephone no:**

**Period of employment:**
1973 to the date of injury (10th August 1979)

**Description of duties:**
J.P. is given a description of the type of arrangement required, the flowers to be

used and the colour.

She fetches the flowers and sits at a table to do the arrangement.

The arrangement of the flowers and choice of container is done according to her judgement of aesthetic appeal.

She also assists in the making of bouquets which involves the following processes: snipping the stem of the flower near the head.

Threading florists' wire through the head.

Binding the wire with florists's tape.

Placing the flowers upright in a piece of "oasis foam".

She sometimes does the arrangements of bouquets during very busy periods.

She had started at Peter Wests' florist as a cleaner and had later received in-service training in flower arranging. Her employers also encouraged her to enter national competitions and in 1978 she won the trophy for the best black florist in South Africa. She therefore derived a great deal of job satisfaction. Her salary was R45,00 per week which she felt was adequate. Her hours of work were from 8.30 a.m. to 5.30 p.m. She travelled to work using two buses. This took her

approximately two hours each way.

J.P. had only worked in one other job as a table hand in a clothing factory. She left this job because the salary was too low.

J.P. expressed a desire to continue with floristry because she enjoyed working with flowers. Her achievements and talents shown in this area certainly indicated this.

SCHOOL HISTORY

J.P. had achieved a Standard 6 level of education. She left school because her mother could not cope financially. She had no plans to return to school.

SPARE TIME PURSUITS

J.P. had very little spare time. This was on Sunday and Saturday afternoon. She was interested in crochet work and knitting, but most of her spare time was taken up with home duties.

RETROSPECTIVE INTERPRETATION OF THE DATA COLLECTED

**Cultural orientation:**
J.P. was tending towards a western orientation in terms of her attitudes towards work as shown by her early work history where financial gains were most

important to her and the present value placed on the interest value of floristry to her.

The development of competence and achievement in floristry had assisted her development and adjustment in the worker role. She was also accepting a great deal of responsibility in the home as the eldest daughter.

MEDICAL BACKGROUND

**Disability:** Paraplegia with total motor and sensory loss below T2.

**Cause:** Husband had stabbed her.

**Medical treatment** was conservative and no complicatons had arisen. Prognosis for recovery was poor as the spinal cord had been totally transected. She was receiving physiotherapy which concentrated on upper limb strengthening and passive movements. The physiotherapist felt that in view of the level of the lesion, prognosis for functional walking was poor.

INTERIM PHASE

This was concentrated on teaching adaptive skills for mobility, personal care and home duties. In addition, J.P. explored typing, hand and machine knitting. She was, however, depressed and aggressive. This manifested in physiotherapy, where

she felt she was being "worked too hard" and in the ward where she was noted to be "quiet and moody" with little attempt at social interaction. In occupational therapy she appeared to be more comfortable in the exploration of unfamiliar activities rather than the more familiar activities of home duties, her comment being "I'd cook if I could walk in the kitchen." This was thought to be connected with the circumstances of her injury and the fact that she was high achiever.

J.P. was discharged home for a weekend on 30th October 1979 and did not return until 13th November 1979 when she was permanently discharged from hospital. The time home, however, was beneficial to her as she attended her husband's court case and was pleased with the results which relieved her bitterness and resentment.

The next attendance was on 13th May 1980 when treatment was arranged with Cripples' Care for twice weekly attendance. Return to previous employment was discussed and patient felt she did not wish to return because the shop was too small, toilets were upstairs and she was embarrassed to work with male workers in her disabled condition. However, she did wish to continue in floristry in a more suitable place of employment. Needed to obtain work as mother could not cope financially. She was much more positive in her attitude

and seemed to have resolved many of her emotional problems.

It was decided to continue with machine knitting to provide some income whilst a vacancy in floristry was being sought. These attempts were unsuccessful. Previous employers sent a message to J.P. stating that if she was able to return to work they would be happy to re-employ her as they were very short-staffed. At this J.P. became very enthusiastic about return to previous employment. The one problem being transport facilities.

The physical environmental problems mentioned by J.P. were investigated by a visit to the florist in August 1980. A ground floor toilet was located and permission secured for J.P. to make use of it. The size of the room in which J.P. was to work was large enough to permit a wheelchair but there was limited room for manoeuvering. Employers suggested that it could be arranged that the cleaner fetch and carry flowers and arrangements for J.P. so that this problem would be minimised. Transport was arranged with Cripples' Care and J.P. started working in October 1980.

Informal telephonic follow-up discussions revealed that J.P. was coping well. She had entered the National Black Floristry Championships again and had achieved a second place. Her employers made all the

arrangements for her transport and preparation for the competition. In August 1981 she was seen at Baragwanath and was still very happy in her job.

Shortly thereafter problems began to manifest J.P. complained of back pain, became moody and unpunctual. When employers challenged her late coming J.P. reacted badly. On discussion with her at a later date she said that her unpunctuality was due to the late coming of the cleaner who had to remove the buckets of flowers in the shop before J.P. could enter. This was seldom before 9.00 a.m. She presumed they realised the reason for her late coming and felt that one of her employer's was prejudiced against her. She had telephoned several florists immediately after this conversation and had found another job in January 1982.

FOLLOW-UP FINDINGS

OPEN LABOUR FOLLOW-UP
WORKER'S QUESTIONNAIRE

NAME OF WORKER: J.P. O.T.No: .....

DATE OF FOLLOW-UP: 12th May 1983

DATE OF PLACEMENT: January 1982

1 Have there been any changes in any of the following:

Home Address: NO
Home Telephone No: -
Place of Work & Why:
YES, disrupted relationship with one of her employers
Type of Job & Why: NO
Immediate Boss: YES
Telephone No: 724-2653
Travelling Arrangements:
CRIPPLES CARE TRANSPORT
Hours of Work: 8.30 am - 5.00 pm

2 What is your present salary?
R56,00 per week

3 Have you had any promotion or is any promotion being considered?
NO

4 Do you have any problems coping with the amount of work?
NO

5 Do you get on well with your boss/fellow workers?
YES

6 Is there anything you do not like about the job
YES. Access to building and toilet facilities obstructed. The salary is too low for the amount and quality of work. There is no opportunity for competition or challenge in the job.

7 How would you suggest the above could be improved?

There seems no possibility of improvement in the situation as it is. Salary increments have been requested but with no response.
The calibre of fellow florists is way below the standard she was accustomed to at Peter West's Florist.

OPEN LABOUR FOLLOW-UP
EMPLOYER'S QUESTIONNAIRE

NAME OF FIRM: Peter West's Florist
ADDRESS: 132 Sanlam Centre, Randburg
TEL. NO: 787-4606

NAME OF INTERVIEWEE: CHRISTOPHER WEST
NAME OF WORKER: J.P. O.T.No ....

If any answers are negative, please specify problem areas.

1 Are you satisfied with workers productivity rate
YES.

2 Are you satisfied with workers standard of work
YES. She was above average.

3 Are you satisfied with his work habits (punctuality, organisation of time, neatness, etc)?
J.P. became extremely unpunctual. She was found to be spending time conversing with a friend in a nearby shop in the morning.

4 Are you satisfied with his general attitude towards the work, towards your authority, and towards other workers.

NO. J.P. was resistant to any criticism and moody. (Behaviour noted pre and post disablement). Employer especially resentful of the ingratitude shown by her abrupt disappearance and lack of notification of her intention to leave.

OPEN LABOUR FOLLOW-UP
EMPLOYER'S QUESTIONNAIRE

NAME OF FIRM: Acacia Florists
ADDRESS: 206 Smit Street, Braamfontein
TEL. NO: 724-2653

NAME OF INTERVIEWEE: CINDY - Manageress
NAME OF WORKER: J.P. O.T.No ....

If any answers are negative, please specify problem areas.

1 Are you satisfied with workers productivity rate
YES. J.P. is a fast and methodical worker.

2 Are you satisfied with workers standard of work
YES. Very good.

3 Are you satisfied with his work habits (punctuality, organisation of time, neatness, etc)?
YES

4 Are you satisfied with his general attitude towards the work, towards your authority, and towards other workers.
YES

## EVALUATION

Placement with previous employer's was the best solution that could be arrived at, at the time and provided badly needed income. There were many positive features which supported placement in this job, e.g. stimulation and encouragement given by employers.

The negative feature of poor relationship and perceived discrimination from one of J.P.'s employers was only discovered after J.P. had left and was employed elsewhere. Closer and more direct follow-up could possibly have alleviated the problem.

Placement in this job did however provide J.P. with enough confidence to seek alternative employment. This job is not satisfactory from J.P.'s point of view, but is satisfactory from her new employer's point of view.

## 2.5 Case Study 5

**NAME:** Mr L.C.
**AGE:** 38 years old
**MARITAL STATUS:** married with one child
**ADDRESS:** 656 Orlando West
**DATE OF INJURY:** 4th February 1969
**DATE OF INITIAL INTERVIEW:** May, 1977
**DATE OF PLACEMENT:** November 1977
**PERIOD OF TREATMENT:** 7 months
**DAT OF FINAL FOLLOW-UP:** 9th May 1983

### INITIAL INTERVIEW

#### Area of Origin and Contact with Relatives in Homeland Areas

Was born in Rhodesia, came to Johannesburg between 1964 - 1965 because everyone said there was a lot of money in South Africa. His father and brother are also working in Johannesburg and he sees them regularly. Seldom sends money home.

This case was included in the case studies as he had spent most of his working life in South Africa.

#### Home Environs Survey

Wife's father is the permit holder of the house. It is very small, has only three rooms with a kitchen, dining room and one bedroom. Electricity is connected but there are no inside taps and the toilet is also outside. There is no bathroom and no

hot water system (water is heated in a kettle for bathing and household purposes). He and his family use mother-in-law's bedroom or the kitchen to bath. A large galvanised iron bath is available. He and his family sleep in the kitchen. There are six adults and one child (L.C.'s) making it very crowded. They are his father-in-law, mother-in-law, his wife and 2 year old son, and two brothers-in-law.

**Financial Responsibility**

He and his wife pay most of the household expenses as his parents-in-law are pensioners and his brothers-in-law are erratic workers. He contributes almost his whole salary of R25,00. No source of income at present.

**Family Relationships**

L.C. had married a Sotho-speaking South African woman after his disablement. Between members of his own little family relationships are good, but he would like to get a better place to stay because his present home is too crowded.

**Work History**

<u>Employment</u>

S & S Woodware Cleveland.

**Period of employment:**
1970 - April 1977.

**Description of duties:**
Hand Sandpaperer of small articles such as wine tables, side tables.

Picks up table from floor next to him and puts table on the workbench.

Sandpapers with fine paper until smooth.

Puts table on floor again. Stands all day.

Was discharged in April 1977 along with many others. Boss said there was no more work. L.C. did not feel that his work performance had anything to do with discharge. He had received some training in occupational therapy before this and was assisted in finding this job. Salary was R25 per month. Did not think it was enough but "well it was money". Worked from 7.00 a.m. to 4.30 p.m. with no overtime. Travelling took him 3 hours in the morning and 1½ hours at night. He had a friend that used to help him with transport to and from the factory to Cleveland Station. It took him 45 minutes to walk to Orlando Station from home.

Other jobs L.C. had had were all unskilled. His reasons for leaving each were to get a higher salary. His choice of jobs were not so much connected with

the type of job but the financial remuneration they offered. One of these jobs was in Rhodesia where he worked for three years. The other two were in South Africa where he worked for three years and four years respectively. He only had one period of unemployment which was after his disablement.

L.C. expressed strong interest in learning shoe repairing and had come to the occupational therapy department for training in this skill. He had a valid work permit for Johannesburg which was granted on condition that he remain in employment.

**School History**

L.C. had attended school in Rhodesia. He had achieved a Standard 3 pass but was not interested in pursuing schooling.

**Spare Time Pursuits**

These were very limited. Before his marriage he used to visit his friends and listen to music. Subsequent to his marriage his spare time activities were mainly connected with his family and home chores. He did not have much spare time during the week in view of the time taken to travel to and from work.

## Retrospective Interpretation

**Cultural Orientation:** There wre signs that L.C. was moving from a traditionalist (job satisfaction and exploration was dictated by their remunerative value only) to a more westernised orientation - inter-marriage and the desire to acquire technical skills.

His exploration of both avocational and vocational pursuits was limited. However, he had very clear ideas as to what he wanted and was prepared to face challenge in order to achieve his goals e.g. persevering with transport and travelling difficulties despite his disability.

This was probably influenced, to some extent, by the danger of losing his work permit. His strongly developed volitional system was therefore his strongest point and his poorly developed performance skills were his weakest point.

## Medical Background

L.C. was injured by a train on 4th February 1969 This resulted in bilateral above knee amputation (the stumps being 3" and 5" respectively). He had already adapted to his disability very well and had few restrictions on his independent mobility. Permanent prosthesis had been supplied during his hospitalisation. He had a wide-based rolling gait and walking

speed was slow.

THE INTERIM PHASE

No adaptive skills needed to be taught and the interim phase consisted of familiarising L.C. with the basic shoe repairing process (see Appendix C) and pp. 76-82. He took two months to achieve this familiarity. Grinding heels level on the boot finishing machine being the area where he experienced most difficulty.

Behaviour and speed of learning were most satisfactory. L.C. showed, in particular, well developed social skills.

THE FINAL PHASE

The times L.C. took to repair one pair of half-soles and heels improved slowly. It is felt that the teaching method was incorrect. L.C. was given one pair of shoes at a time and was required to complete the entire process from stripping to machine finishing. It is thought that a better method would have been to let him practise one or two of the processes at a time to facilitate habit formation in the movements involved. This method is currently being used with good results. In addition to the processes listed on Appendix C, L.C. was taught to operate the leather patching machine.

L.C. achieved the required speed of thirty minutes per half sole and heel repair in August 1977 and the rest of the period to November was devoted to teaching use of the patching machine.

He was placed at the Baragwanath Orthopaedic workshops in November 1977.

## FINDINGS ON FOLLOW-UP

### OPEN LABOUR FOLLOW-UP
### EMPLOYER'S QUESTIONNAIRE

NAME OF FIRM: Orthopaedic Workshops,
Baragwanath Hospital
TEL. NO: 944-1100 Ext 661
NAME OF INTERVIEWEE: Mr Pretorius
NAME OF WORKER: L.C. O.T.No .....

If any answers are negative, please specify problem areas.

1 Are you satisfied with workers productivity rate
**Yes, it is slightly slow because of walking speed, but is not a big problem.**

2 Are you satisfied with workers standard of work
**Yes**

3 Are you satisfied with his work habits (punctuality, organisation of time, neatness, etc)?
**Excellent**

4 Are you satisfied with his general attitude towards the work, towards your authority, and towards other workers.
Most satisfactory. L.C. is always willing to take on extra work on busy clinic days

* It should be noted that during observation of L.C. working on the day of follow-up he completed four modifications in two hours - well within the 45 minute allowance.

OPEN LABOUR FOLLOW-UP
WORKER'S QUESTIONNAIRE

NAME OF WORKER: L.C. O.T.No: .....

DATE OF FOLLOW-UP: 9th May, 1983

DATE OF PLACEMENT: 26th November 1977

1 Have there been any changes in any of the following:

| | |
|---|---|
| Home Address: | NO |
| Home Telephone No: | NO |
| Place of Work & Why: | NO |
| Type of Job & Why: | NO |
| Immediate Boss: | NO |
| Telephone No: | NO |
| Travelling Arrangements: | NO |
| Hours of Work: | NO |

2 What is your present salary?
R320 per month. L.C. has taken an endowment policy and deductions amount to R30.

3 Have you had any promotion or is any promotion being considered?
NO

4 Do you have any problems coping with the amount of work?
NO

5 Do you get on well with your boss/fellow workers?
**YES**

6 Is there anything you do not like about the job
**NO. "I would like to die doing this job."**

7 How would you suggest the above could be improved?
**Not applicable**

**EVALUATION**

The job sampling method was highly effective in L.C.'s case not as much for identifying the type of job (L.C. had already done this himself) as for training, evaluation of his performance and providing criteria for the timing of placement. The final result is very satisfactory both from the employer's and L.C.'s points of view.

However, the time taken for training and preparation could possibly have been reduced.

# IV. SUMMARY AND CONCLUSIONS

## 1. SUMMARY

The objective of this investigation was to describe and discuss how methods of assessing work capacity or potential could be applied to meet the particular needs of the disabled South African black. Five retrospective case studies were discussed to illustrate the relevance of the procedures used.

Assessment of work potential or capacity is seen as occurring in three phases, namely a preliminary phase, an interim phase and a final phase. In the preliminary and interim phases, assessment of work potential or capacity occurs as part of the global assessment of the disabled black individual as an occupational entity. The final phase is devoted exclusively to the assessment of the individual's capacity to comply with the exacting standards of the urban industrial environment on qualitative and quantative levels.

The procedures described in the different phases were as follows.

### 1.1 The Preliminary Phase

The preliminary assessment sets the tone for all that will follow and forms the foundation of the assessment of work potential or capacity.

(a) The initial semi-structural interview

(Refer Appendix A). The objective of this interview is to obtain information on the disabled black individual as an occupational entity from a psycho-social perspective.

The interview is based on the theoretical model of Human Occupation developed by Kielhofner et al (1980 a,b,c,d), the occupational history interview originally described by Moorhead (1969) and later revised and abbreviated by Florey and Michelman (1982). These latter procedures were modified to make them more relevant for the disabled South African Black, by referring to the factors influencing the productivity of the black worker in urban industry. These factors can be classified as those relating to cultural orientation, and to infrastructural support systems in the place of work and in the socio-economic environment, e.g. job opportunities vocational training facilities and industrial relations.

In essence these factors assert an influence on the black worker's adjustment to the urban industrial setting by determining the types of jobs he will explore, the level of competence he will achieve, his upward movement or opportunities for achievement in the work arena, and consequently the image he develops of himself as an effective performer in the work environment.

They will therefore assert an influence on the image he develops of himself as a worker and will necessarily effect the disabled black's attitudes towards work resettlement.

The occupational therapist therefore needs to take cogniscance of these factors in the work history and use them as a guide as to what approach to use during therapy, her planning of treatment and the interpretation of observations of the patient's performance in activity programme.

(b) Home Duties Checklist, (Refer Appendix B) particularly important in the case of outpatients, provides some idea of functioning and the degree to which the disability is effecting occupational performance. These are usually similar in the different activity spheres.

(c) i Review of the records and discussions with other medical and allied medical personnel involved in the treatment of the disabled individual is done.

ii Formal testing of skilled intellectual and physical functioning e.g. desterity and tolerance, decision making and reasoning ability could also be done at this stage. These were however excluded from this study.

The objective of the above is to obtain information on the individual as a pathological entity, viz. the cause and extent of injury or illness, the prognosis for recovery of the disability and details on treatment which could have a bearing on the occupational therapy treatment.

The assessment of work potential yielded by the preliminary assessment is discussed in detail.

These may be summarised as the identification of strengths and weaknesses in his pre-morbid occupational performance, his present performance and the predicted effect the disability will have on his future occupational performance.

1.2 The Interim Phase

The phase utilises performance observation where therapy and assessment are concurrent.

The activity programmes planned for this phase include personal care activities, home duties and recreation. The link between the observations recorded on the patient's performance on these activities and assessment of work potential is established by the activity analysis. It is suggested that if one standard method of activity analysis is used for all activities available in the occupational

therapy department as well as for the analysis of jobs, the significance of the observations of the patient's performance on other activity programmes could be more clearly related to assessment of work potential. The concept of work simulation as described by Shipham (op.cit. 1974, 1980, 1982) lends itself to this approach.

The recreation programme can be used to allow for exploration of activities which could have value in terms of employment. This is particularly important for the tribally orientated disabled black, whose experience is usually limited to unskilled work and who may not have had the opportunity to develop his skills and competence. It is also important for those individuals who are in transitional phases in their lives and need to consolidate their concept of themselves as occupational entities, e.g. the or young adolescent adult, the individual who is in the nebulous transitional phase of cultural orientation.

From a pathological point of view, attention is concentrated on teaching the disabled individual adaptive skills to compensate for the loss of performance skills. The adaptive skills which are taught are those which the therapist uses herself to grade the demands of the activity programme namely, criteria for selection of activities, structuring and

method simplification, how and when to use aids (both mechanical and human aid) and how to cope in different physical and psychological environments.

The yields of the interim phase in terms of assessment of work potential, may be summarised as the adaptation the individual shows to disabled living and the emergence of an occupational choice - work avenue and type of job.

The interim phase is based in the theory of creative ability, described by du Toit (op.cit. 1974), and the work related programme described by Lowes (op.cit. 1970).

Several important modifications were however introduced according to the Model of Human Occupation developed by Kilhoefner et. al. (Op.cit. 1980 a,b,c,d) the assessment and intervention model developed by Brazier and Lipschitz (Op.cit. 1976) and the principle of paralysis of patient ability and job analysis described by Shipham (Op.cit 1974, 1980, 1982).

## 1.3 The Final Phase

This pahse was based on the TOWER Job Sampling technique described by Rosenberg (Op.cit 1962, 1972) work trial described by Fordyce (Op.cit 1967). The principles of work simulation (as described by

Shipham (Op.cit 1974, 1980, 1982) were used in the job analysis but the method as a whole was not applied.

This phase concentrates on the development competence exclusive to the work sphere of activity - the individual having by this stage been prepared for and integrated, as far as his abilities will allow, into other activity situations.

In particular, attention is concentrated on the disabled individual's capacity to conform to the more exacting qualitative and quantitative norms demanded by the urban industrial environment and the demands he will have to impose on himself if he is to successfully establish a home industry.

## 2. CONCLUSIONS

The retrospective study of the five cases used to illustrate the application of the procedures used was not very satisfactory as not all the procedures could be applied retrospectively (in particular the Home Duties Checklist)

It is also not appropriate to draw conclusions from so small a sample.

However certain features may be discussed in relation to the findings or the retrospective case studies.

## 2.1 Discussion Of The Influence Of Psycho-Social Factors On The Productivity Of The Five Case Studied

The initial interview format (see Appendix "A") served to collect disjointed information together and to provide a meaningful picture of the individuals from a psycho-social perspective. This picture was important in understanding the problems found on follow-up and formed the focal point of the assessment procedure.

(a) The outstanding feature of the retrospective case studies is the dominant influence their pre-disablement psycho-social development had in the long-term on their successful work resettlement.

In two cases (case 1 and case 5) there were very positive elements in their psycho-social development and in these cases, the neglect of psycho-social factors had little effect on the eventual outcome of assessment and preparation for work. However, in the three remaining cases where there were negative elements, the work resettlement was unstable even after apparent stability for the first six months, two years and one year respectively. This appears to underline the need for taking time and care in assessing the development of the disabled black individual as a psycho-social

entity, the emphasis of the occupational therapist being on pre and post disablement occupational behaviour and performance.

(b) The case studies also suggest that this picture of the disabled black individual as obtained by viewing him from a psycho-social perspective should supercede the picture of the individual as a pathological entity as the determinant for occupational therapy aims, strategies and implementation. It is suggested, in other words, that knowledge of psycho-social influences is not just background information but crucial and essential information central to the effective preparation of the disabled black individual for return to remunerative employment.

(c) The Model of Human Occupation developed by Kielhofner et.al. (op.cit 1980a,b,c,d) provides the most comprehensive theory of human occupation available to date and was found to be valuable in the retrospective interpretation of data collected. Despite the fact that the model was developed with a western culture in mind. It retained its relevance in its application to the disabled black individual.

This model certainly deserves wider investigation of its application to assessment and treatment procedures. Furthermore, the emphasis which Moorhead,

Kielhofner et.al. place on the psycho-social components in the occupational therapy assessment and treatment has been clearly demonstrated as being a valid approach to use.

2.2 In the cases studied, the emphasis during therapy rested on improvement of occupational function and teaching adaptive skills to compensate for lost or impaired function, rather than an improvement of basic physical function.

This strategy was successful in countering the effect of the disability as the follow-up findings demonstrated that the disability of these five individuals was no longer exerting a significant influence on the individual's behaviour and performance at work. The one exception was case 3 where impairment of sexual function had caused the breakdown of his relationship with the girl he intended to marry - an event which, because of the psychological trauma attached to it, severely affected his working habits. This, however, had little direct relationship to the occupational therapy treatment.

It is suggested that the emphasis that occupational therapists have placed on improvement of isolated and basic aspects of physical function is misplaced in a full rehabilitation team context. The correct emphasis for the occupational

therapist is suggested as being improvement of skilled function such as dexterity, decision-making, etc. and teaching of adaptive skills in an occupational context.

2.3 Discussion of Methods Used in the final phase of assessment.

(a) Job sampling was found to be the most useful method in the three cases who returned to previous employment or other open labour. This was:

(i) Because it lent itself to clearer, outside job-relatedness for the individual who also needed training in technical skills (case 5) - a factor that has been found to be important in the training of the non-disabled black worker who has a more tribal / traditionalist cultural orientation.

(ii) Work trial had to be used for cases 3 and 4 as the facilities available did not allow for adequate assessment. The big disadvantage of this method is the need for close and continued liaison between the disabled individual and his employer with the therapist. This can be time consuming because of travelling involved, telephone conversations and filled-in questionnaires not providing adequate enough information

to replace direct observation.

## 3 AREAS REQUIRING FURTHER RESEARCH

This investigation concentrated on the description of methods of assessing work potential or capacity which can be applied from the commencement of therapy through to the final stages. However, a great deal of further research needs to be done in order to validate the procedures described.

3.1 Prospective application of the procedures to a larger sample of disabled black individuals should be done and the findings correlated with follow-up findings.

3.2 Investigation of the wider application in other activity programmes of the principles of job analysis and patient ability analysis described by Shipham (1980, 1982) should be done.

3.3 The validity for the disabled black of formal testing procedures developed for the assessment of various aspects of intellectual and psychological functioning of the non-disabled black should be jointly investigated by a physiologist, psychologist and an occupational therapist in order to identify modifications required.

3.4 The correlation between the observations

of occupational performance and findings on formal testing procedures for dexterity, decision-making, etc, would serve to identify the effects of different types of disabilities on occupational performance.

3.5 The use of adaptive skills in the remediation of the effects of different disabilities on occupational performance should be investigated in order to supply more information on the nature and type of skills which can be utilised in different activities for persons with different disabilities.

# INITIAL INTERVIEW QUESTIONNAIRE

NAME: ..... DATE: .....

DEMOGRAPHIC DATA:

Age: ..... Sex: .....
Ethnic Group: ..... Home Tel .....
(or nearest tel)
Present Address: .....
.....

## 1 AREA OF ORIGIN AND CONTACT WITH RELATIVES IN RURAL AREAS

Where were you born?

.....

How long have you lived in Johannesburg (or other urban area) and why did you come to the city?

.....

Do you have family in the homelands? If so, what relation are they and where do they live?

.....

How often do you visit them, send money home to them, write or receive letters?

.....

## 2 HOME ENVIRONS SURVEY

Who owns the house?

.....

Who is the permit holder?

.....

How many rooms does the house have and what are they?

.....

Do you have taps inside the house and where are they?

.....

Do you have electricity?

.....

Do you have a sink in the kitchen?

.....

Do you have a hot water geyser or boiler? If not, how do you heat the water?

.....

Do you have a bathroom? If not, where do you bath and what do you use?

.....

Where do you sleep?

.....

How many people live in the house and what relation are they to you?

.....

ADDITIONAL INFORMATION

.....

.....

.....

.....

3 FINANCIAL RESPONSIBILITY

Do you pay most or part of the expenses in your home? How much is this and what do you pay for?

.....

Who else pays for expenses in the house and what do they pay for?

.....

Where are you getting money from while you have been sick / not working?

.....

ADDITIONAL INFORMATION

.....
.....
.....
.....

4 FAMILY RELATIONSHIPS

Do you and your family members understand each other? If not, what problems do you have?

.....

5 WORK HISTORY

What was your last job?

.....

Are you still employed there? If not, why and when did you leave?

.....

Can you give details:

name of company or employer

.....

address .....

.....

tel no ..... clock no .....

period of employment .....

description of duties .....

Did you have any training? If so, how long and what sort of training was it?

.....

How much money did you get? Do you think it is enough for the work you do?

.....

Did the firm have a canteen or provide you with food?

.....

What were your hours of work? Did you work any overtime?

.....

How did you travel to work and how long did it take you?

.....

How long did it take you to get to the transport stop from your house and how did you get there?

.....

Can you get promotion with better pay and what kind of jobs would that be? .

.....

Are you happy in this job? If not, why are you unhappy?

.....

What other jobs have you had and why did you leave them?

.....

Which was the job you stayed at longest?

.....

Have you ever been unemployed? How long was this for and why?

.....

Which of these jobs did you like best?

.....

What job would you like to have in the future and why do you choose this kind of work?

.....

Do you have any plans as to how you will achieve this?

.....

Do you have a permit to work in Johannesburg?

.....

6 SCHOOL HISTORY

Where did you go to school?

.....

What standard did you pass?

.....

Why did you leave school?

.....

Would you like to go back to school and what would you like to learn?

.....

What did you enjoy about school?

.....

What did you not like about school?

.....

7 SPARE TIME PURSUITS

What do you do in your spare time?

.....

When do you have spare time and how much time do you have?

.....

Are there any things that you would like to do if you had the time and what are they?

.....

Do you belong to any clubs and what kind are they?

.....

Do you belong to a church and what denomination is it?

.....

ADDITIONAL INFORMATION

.....

.....

.....

.....

# HOME DUTIES CHECKLIST

NAME: ..... O.T.No: .....

DATE COMPLETED: .....

AGE: ..... SEX: .....

1 DO YOU HAVE A:

coal stove .....

refrigerator .....

electric kettle .....

electric iron .....

lawnmower (electric) .....

(hand operated) .....

2 WHICH OF THE FOLLOWING DO YOU PERSONALLY DO:

Please mark with X which you enjoy most.

D = Daily

S = Sometimes

N = Never

| | D | S | N |
|---|---|---|---|
| peeling vegetables | | | |
| cooking porridge | | | |
| making tea | | | |
| frying eggs | | | |
| cooking meat & vegetables | | | |
| making fire | | | |
| chopping wood | | | |
| cleaning stove | | | |
| dusting | | | |
| polishing furniture | | | |
| sweeping | | | |
| polishing floor | | | |
| scrubbing floor | | | |
| scrubbing kitchen table | | | |

| | D | S | N |
|---|---|---|---|
| cleaning toilet | | | |
| washing dishes | | | |
| making bed | | | |
| washing own underwear & socks | | | |
| washing own dresses/shirts | | | |
| washing family's clothing | | | |
| washing towels | | | |
| washing sheets | | | |
| washing blankets | | | |
| ironing own clothing | | | |
| ironing family's clothing | | | |
| sweeping garden | | | |
| picking up papers in garden | | | |
| weeding | | | |
| cutting grass | | | |
| cutting trees | | | |
| watering | | | |
| digging | | | |
| planting seeds | | | |
| planting small plants | | | |
| mending clothing | | | |
| knitting jerseys for family | | | |
| household repairs & maintenance | | | |
| making dresses for self | | | |
| making dresses for family | | | |
| | | | |

ADDITIONAL INFORMATION

.....

.....

.....

.....

# JOB ANALYSIS SUMMARY

NAME OF FIRM: King Cobbler (Lenasia)
NAME OF CONTACT: Messrs. Devshant, Nana, Fulat
ADDRESS: HNJ Centre
101 Nationwide Road
Lenasia
TELEPHONE NO: 852-3121

JOB TITLE:
Shoe repairer. Ladies sticker soles and heels

QUALILFICATIONS REQUIRED:
Previous experience in shoe repairing. Formal training not required

| | PROCESSES INVOLVED: | TIMES: |
|---|---|---|
| 1 | Reception | |
| 2 | Cutting heel strips on skiving machine | 1,30 mins (for 1m strip) |
| 3 | Stripping of heels | 7 secs / shoe |
| | Stripping of soles | 11 secs / shoe |
| 4 | Pattern making | 42 secs / shoe |
| | Pattern marking | 25 secs / ½ sole |
| 5 | Cutting out ½ and full soles | 19 secs / ½ sole |
| 6 | Machine work | |
| | Roughing shoe | 44 secs / ½ sole |
| | Scraping new sole | 16 secs / ½ sole |
| | Neatening heel of shoe | 20 secs / heel |
| | Finishing heel | 21 secs / heel |
| 7 | Buffing ½ sole | 30 secs / ½ sole |
| | Buffing 1 shoe | 27 secs / shoe |
| 8 | Glueing ½ sole and shoe | 38 secs / ½ sole and shoe |
| | Glueing heel strips | 30 secs |

| PROCESSES INVOLVED: | TIMES: |
|---|---|
| Glueing heel on shoe | 10 secs |
| 9 Securing ½ soles | 23 secs / ½ sole |
| Securing heels | 23 secs / heel |
| 10 Trimming ½ soles | 21 secs / ½ sole |
| Trimming heels | 15 secs / heel |
| 11 Application dye | 20 secs / shoe |
| 12 Application polish | 18 secs / shoe |
| TOTAL TIME for 1 lady's shoe ½ sole and heel repair | 9,0 mins |
| AND 5 untimed elements involving walking and handling. | |

# FOLLOW-UP QUESTIONNAIRE FOR PATIENTS ON HOME INDUSTRY PROJECTS

NAME: ..... DATE: .....

TYPE OF HOME INDUSTRY .....

1 Why did you choose to do the above home industry

.....

.....

.....

2 Would you prefer to be employed on the OLM ?

Yes ..... No ..... Give reasons for your answer.

.....

.....

.....

3 INCOME & EXPENDITURE

a) How do you estimate your income & expenditure ?

.....

.....

.....

b) What is your gross monthly income .....

c) What is your Monthly expenditure on

Materials: .....

Machinery & Equipment: .....

Transport: .....

Additional Labour: .....

4 HOW DO YOU MARKET/ADVERTISE YOUR GOODS?

a) Through Commercial Outlets .....

Philanthropic Organisations (Specify) .....

.....

Through Friends/Family .....
Through Word of Mouth Customers .....

b) What range of articles do you manufacture?

.....
.....
.....
.....
.....

c) Which of these sells best and why?

.....
.....
.....
.....

d) Is there any seasonal change in the range and quantity of goods you sell? Yes..... No.....
Where do you get income from during slack periods?

.....
.....

7 <u>WHAT PROBLEMS DID YOU EXPERIENCE WHEN SETTING UP YOUR BUSINESS IN</u>

Family Attitudes .....
Space to Work .....
Marketing .....
Obtaining Materials .....
Manufacturing .....
Financial Matters .....
Capital .....
Payment by Customers .....

8 <u>HOW HAVE YOU SOLVED THESE PROBLEMS</u>

.....
.....

APPENDIX D 

9 WHAT PROBLEMS ARE YOU STILL EXPERIENCING AND HOW DO YOU PROPOSE TO SOLVE THEM

.....
.....
.....
.....

10 ANY ADDITIONAL INFORMATION WHICH YOU FEEL WILL ASSIST US IN HELPING FUTURE PATIENTS TO PREPARE FOR A HOME INDUSTRY

.....
.....
.....
.....

11 WHAT ARE YOUR FUTURE PLANS FOR YOUR BUSINESS

.....
.....
.....
.....

# OPEN LABOUR FOLLOW-UP
# WORKER'S QUESTIONNAIRE

NAME OF WORKER: ..... O.T.No: .....

DATE OF FOLLOW-UP: .....

DATE OF PLACEMENT: .....

1 Have there been any changes in any of the following:

Home Address .....
Home Telephone No .....
Place of Work & Why .....
Type of Job & Why .....
Immediate Boss .....
Telephone No .....
Travelling Arrangements .....
Hours of Work .....

2 What is your present salary?

.....
.....
.....
.....

3 Have you had any promotion or is any promotion being considered?

.....
.....
.....
.....

4 Do you have any problems coping with the amount of work?

.....
.....
.....
.....

5 Do you get on well with your boss/fellow workers?

.....
.....
.....
.....

6 Is there anything you do not like about the job

.....
.....
.....
.....

7 How would you suggest the above could be improved?

.....
.....
.....
.....

OPEN LABOUR FOLLOW-UP
EMPLOYER'S QUESTIONNAIRE

NAME OF FIRM: .....
ADDRESS: .....
TEL. NO: .....

NAME OF INTERVIEWEE: .....
NAME OF WORKER: ..... O.T.No ....

If any answers are negative, please specify problem areas.

1 Are you satisfied with workers productivity rate
.....
.....
.....
.....

2 Are you satisfied with workers standard of work
.....
.....
.....
.....

3 Are you satisfied with his work habits (punctuality, organisation of time, neatness, etc)?
.....
.....
.....
.....

4 Are you satisfied with his general attitude towards the work, towards your authority, and towards other workers.
.....
.....

REFERENCE LIST

ASMUSSEN, Prof. E. (1967) Physiological measurement in Work Assessment. Work Assessment Congress, Pretoria.

BARAN, S., (1974) 'A Study of the Relationship Between Field Dependence and Modernisation in South Africa, in Morse S and Orpen C (eds)', Cape Town, Juta.

BIESHEUWEL, S. (1943). 'African Intelligence', Johannesburg, South African Institute of Race Relations.

BIESHEUWEL, S. (1959). 'Race, Culture and Personality', Johannesburg, South African Institute of Race Relations.

BIESHEUWEL, S., (1972) 'The Ability of Africans', South African Journal of Occupational Therapy, 3 (2) pp. 10-11.

BIESHEUWEL, S., (1974) 'Acculturation of Blacks in Africa, In Morse S and Orpen C (Eds), Contemporary South Africa : A Social Psychological Perspective', Cape Town, Juta.

BRAZIER, J.D.A. and LIPSCHITZ, R. (1976). 'The Rehabilitation of the Spinal Cord Injury', unpublished paper presented at The National Congress of the South African Association of Occupational Therapists, Johannesburg.

BURKE, J.P. (1977). 'A Clinical Perspective on Motivation : Pawn vs Origin', American Journal of

Occupational Therapy, Vol 31, pp.254-259.

CAWOOD, J. (1981). 'Vegetable Gardening as a Home Industry for Patients Confined to Wheelchairs', S.A. Journal of Occupational Therapy, June, pp.3-5.

CLARKE, P.N. (1979a) Human Development through Occupation: Theoretical Frameworks in Contemporary Occupational Therapy Practice Part 1. American Journal of Occupational Therapy, 33 (8), pp. 505-514.

CLARKE, P.N. (1979b) Human Development through Occupation: Conceptual Model for Practice, Part 2. American Journal of Occupational Therapy, 33 (9), pp. 577 - 585.

DU TOIT, E. (1974). 'A Charting System for Simulating the Elements of Work Seen in Industry in an Occupational Therapy Department', Proceedings of the 6th WFOOT International Congress, Canada, pp.745-758.

DU TOIT, H.J.O. (1974). 'An Investigation into the Correlation Between Volition and its Expression in Action', South African Journal of Occupational Therapy, 4(2), pp.6-10.

ETHERIDGE, D.A. (1968). 'Pre-Vocational Assessment of the Rehabilitation Potential of Psychiatric Patients', American Journal of Occupational Therapy, 22(3), pp.161-167.

ETHEREDGE, D.A., (1982) 'The Problem of Productivity in South Africa'. Manpower Journal, 1 (6) pp.15-18.

FARRELL, J.M. (1974). 'The Combined Use of Tests and Measuring Workshop Performance to Determine the Potential of the Disabled to Succeed in Repetitive Process Work', Proceedings of the Sixth International Congress of WFOOT, Vancouver, pp.690-711.

FARRELL, J.M. (1980). 'Research in Activity', Proceedings of the National Congress of the South African Association of Occupational Therapists, Cape Town, pp.19-23.

FLOREY, L. (1969). 'Intrinsic Motivation - the Dynamics of O.T.', American Journal of Occupational Therapy, Vol. 23, pp.319-322.

FLOREY, L.L., MICHELMAN, S.M. (1982). 'Occupational Role History : A Screening Tool for Psychiatric Occupational Therapy', American Journal of Occupational Therapy, 36(5), May, pp.301-308.

FORDYCE, D.F., (1967). Work Assessment in the Psychiatric Field. South African Journal of Occupational Therapy, 1(18), pp.4-7.

GODSELL, G., BLUEN, S., MALHERBE, J., (1981) 'Industrial Relations: A Survey of Transvaal Companies', Industrial Relations Journal of South Africa, 1 (2), pp. 1-8.

GRANT, G.V. (1969). The Organisation of Mental Abilities of an African Ethnic Group in Cultural Transition, unpublished Ph.D Thesis, University of The Witwatersrand.

GRANT, G.V. (1970). 'Spatial Thinking : A Dimension of African Intellect', Psychologia Africana, 13, pp. 222-239.

GRANT, G.V., (1972). 'Conceptual Reasoning: Another Dimension of African Intellect', Psychologia Africana, 14, pp. 170 - 183.

GRANT, G.V. (1974) 'The Urban-Rural Scale: Socio-Cultural Measure of Individual Urbanisation, in Morse S. and Orpen C., (eds), Contemporary South Africa : A Social Psychological Perspective', Cape Town, Juta.

GRAYSON, R. (1971). 'Work Assessment Conditioning and Training of the Quadriplegic and of the Brain Damaged Patient, as carried out at the Prince Henry Hospital', Australian Journal of Occupational Therapy, July - September, pp.19-27.

HEARD, C. (1977). 'Occupational Role Acquisition : A Perspective on the Chronically Disabled', American Journal of Occupational Therapy, 31 (4), April, pp.243-247.

HOLSTEN, E. (1980). 'The Influence of Culture on Participation in Activity', Proceedings of the Congress of the S.A. Association of Occupational Therapists, Cape Town, pp.24-33.

JACKSON, D.A. (1982). 'Black Advancement; the Parameters of the Problem', Manpower Journal, 1(2), pp.13-19.

JOHNSON, J. (1973). 'Occupational Therapy : A Model

for the Future', American Journal of Occupational Therapy, 27 (1), pp.1-7.

KAALES, I.M. (1982). A Suggested Treatment Programme using Activities of Personal Care for the Recovering Mentally Disorientated Patient with Brain Damage, B.Sc.O.T. Conversion Dissertation, University of the Witwatersrand, Johannesburg.

KIELHOFNER, G., BURKE, J.P., (1980)a. A Model of Human Occupation, Part I: 'Conceptual Framework and Content', American Journal of Occupational Therapy, September, 34(9), pp.572-581.

KIELHOFNER, G. (1980)b. 'A Model of Human Occupation, Part II: Ontogenesis from the Perspective of Temporal Adaption', American Journal of Occupational Therapy, October, 34(10), pp.657-663.

KIELHOFNER, G. (1980)c. 'A Model of Human Occupation, Part 3: Benign and Vicious Cycles', American Jouranl of Occupational Therapy, 34(11), pp.731-737.

KIELHOFNER, G., BURKE J.P., HEARD IGI C. (1980d). 'A Model of Human Occupation, Part 4: Assessment and Intervention', American Journal of Occupational Therapy, 34(12), pp.777-788.

LABIA, N.A., ZARENDA, H., (1977) 'The Relevance of the Balance of Payments to Employment Creation in South Africa', African Studies, 36 (2), pp.131-139.

LOWES, R.M. (1970). 'The Role, Nature and Application of Work Related Activities Through the

Whole O.T. Programme', Proceedings of the Fifth International Congress of WFOOT, Zurich, pp. 210 and 214.

MATSUTSUYU, J.S. (1969). 'The Interest Checklist'. American Journal of Occupational Therapy, 23 (4), July - August, pp.323-328.

McDOUGAL, RAMSDALE, C.A., MURDOCH, S. (1974). 'A Work Assessment Programme', Australian Journal of Occupational Therapy, Jan - March, pp.27-29.

McLAREN, P. (1978). Factors Influencing the Employment of Black Unilateral Lower Limb Traumatic Amputees Living in the Witwatersrand Area, M.Sc.OT Dissertation, University of the Witwatersrand, Johannesburg, 1978.

McLAREN, P. (1979a). 'Factors Determining Motivation to Becoming Employed-disability', S.A. Journal of Occupational Therapy, May, pp.10-13.

McLAREN, P. (1979b). 'A Programme Designed to Investigate Home Industries for Disabled Homebound Urban Blacks', A Jobs Report, February - June, Johannesburg.

MOORHEAD, L. (1969). 'The Occupational History', American Journal of Occupational Therapy, Vol XXIII, No. 4, July - August, pp.329-334.

ORPEN, C., (1976) 'Productivity and Black Workers in South Africa', Cape Town, Juta.

PEAKE, First Lt. L.N., (1962) Vocational Assessment

by the Job Sampling Technique. Proceedings of the Third International Congress of the World Federation of Occupational Therapists. pp. 195-201.

PETASIS, A.P., HANCOCK, M.J., (1979). 'Effective Black Supervisory Behaviour and Training in Handling Black Poor Performers and Latecomers'. Psychologia Africana, 18 pp.1-21.

REDECKER, A. (1977). 'Training and Follow-up of Home Industry Patients at the Adult Spinal Cord Injury Unit, Conradie Hospital', Proceedings of the the Congress of the S.A. Association of Occupational Therapists, Bloemfontein, pp.45-60.

REILLY, M. (1962). 'Occupational Therapy can be one of the great ideas of the 20th Century', American Journal of Occupational Therapy, 16(1), pp.1-9.

REILLY, M. (1966). 'A Psychiatric Occupational Therapy Programme as a Teaching Model', American Journal of Occupational Therapy, 20 (2), pp.61-67.

ROBB, J. (1975). 'Returning the Patient to Work', Australian Journal of Occupational Therapy, Jan - March, pp.37-39.

ROSENBERG, B. (1962). 'Vocational Evaluation - TOWER - Rehabilitation Centre. Work Adustment as a function of Occupational Therapy', Study Course V, 3rd International Congress of The World Federation of Occupational Therapists pp. 62-65.

ROSENBERG, B. (1972). 'TOWER: Vocational Assessment

of the Handicapped', International Rehabilitation Review, 23 (3 and 4), pp.14-16.

ROYAL PERTH HOSPITAL, the Occupational Therapy Department (1971). 'Work Tryouts at the Royal Perth Hospital', Australian Journal of Occupational Therapy, January - March, pp.38-40.

SHANNON, P. (1977). 'The Derailment of Occupational Therapy', American Journal of Occupational Therapy, Vol. 31, pp.229-234.

SHIPHAM, E. (1980). 'Activity in the Work Preparation Programme', Proceedings of the National Congress SAAOT, Cape Town, pp.102-107.

SHIPHAM, E. (1982). 'Work Simulation to Determine Work Capacity', Proceedings of the 8th International Congress of WFOOT, Hamburg.

Survey of Race Relations in South Africa, 1981, Horrel, M. (ed.) South African Institute of Race Relations, Johannesburg, March, 1982.

Survey of Race Relations in South Africa, 1982, Randall, P. (ed.) South African Institute of Race Relations, Johannesburg, January, 1983.

TEMPLAR, A.J., (1982) 'The Emerging Black Manager: A Comparative Study of Power, Commitment and Supervisor Perceptions', Psychologia Africana, 21, pp.149-167.

THRALLS, M.E., 'Vocational Evaluation Techniques for the Severely Disabled; Work Adjustment as a Function of Occupational Therapy Study Course V, 3rd International Congress of W FOOT, Philadelphia, 1962, pp.83-86.

WATSON, L.M. (1972). 'Assessment and Placement of the Blind Worker in Industry', American Foundation for the Blind Research Bulletin, March, pp.113-141.

WEBER, M. and WATSON, R.M. (1980). 'Activity Analysis, Adaptation and Application', Proceedings of the National Congress of the South African Association of Occupational Therapists, Cape Town, pp.11-18.

BIBLIOGRAPHY

BLACKMAN, S. (1972). 'The Employer's View of the Handicapped in the Office and Printing Fields', Australian Journal of Occupational Therapy, July - September, pp.138-143.

DEACONS, S., DUNNING, R.E., DEASE, R., 'A Job Clinic for Psychotic Clients in Remission', American Journal of Occupational Therapy, Vol 28, No 3, 1974, pp.144-147.

FIDLER, G.S., 'A Second Look at Work as a Primary Force in Rehab. & Dy.' American Journal of Occupational Therapy, XX, 2, 1966, pp.72-74.

FITZERALD, S.T., 'The Role of O.T. in the Rehabilitation of Worker's Compensation Cases', Australian Journal of Occupational Therapy, October - December 1972, pp.159-171.

GADEN, M.C., 'A Programme for Work Assessment & Conditioning', Australian Journal of Occupational Therapy, April - June 1972, pp.58-62.

GRAY, S., 'Goodwill Industries Workshop for the Adult C.P.' Australian Journal of Occupational Therapy, January - March, 1970, pp.27-29.

GREEN, A., GOULD, L., MULLER, M., OTTO, K., HENDERSON, R., 'Task Groups: "How They Work in One Vocational Assessment Unit"', American Journal of Occupational Therapy, June 1978.

HEALEY, B.J. 'Rehabilitation and Work Motivation for Long Term Psychotic Patients', American Journal of

Occupational Therapy, January - March 1973, pp.32-35.

LUVCHUK, S., 'The O.T. in Industry: A Developing Challenge', American Journal of Occupational Therapy, October, 1980.

PEARMAN, H.E., NEWMAN, N., 'Work Orientated Occupational Therapy for the Geriatric Patient', American Journal of Occupational Therapy, 22(3), 1968, pp.203-208.

PRETORIUS, C., 'Activity Programme & Work Programme - the Role of the O.T. in the Treatment of Persons with Epilepsy', S.A. Journal of Occupational Therapy, June, 1981, pp.6-8.

ROBINSON, K.L., GILL, T., BULL, S.B., SPAULDING, S.J., HOWE, M.C., WEAVER, C.T., DULAY, J., 'The Development of the Work-Oriented Day Centre Programme, American Journal of Occupational Therapy, 35, 11, pp.711-718, 1981.

'Remploys International Message', Contact, Spring 1982. pp. 8-9.;

SUNDSTROUM, Major C. 'The Physiological Aspects of Work & Play', American Journal of Occupational Therapy, Vol 26, 4, pp.173-175

SWITZER, M., 'Pre-vocational Valuation and Job Placement', Proceedings of the 3rd International WFOOT Congress, Philadelphia, 1962, pp.173-181.

WATERSON, J., 'Simon Square Centre Edinburgh', Work Adjustment as a function of Occupational Therapy, Study Course V, 3rd International Congress of the World Federation of Occupational Therapists, Philadelphia 1962, pp.94-98.

WEST WILMA L., 'The Role of O.T. in Work Adjustment', Work Adjustment as a function of Occupational Therapy, Study Course V, 3rd International Congress of the World Federation of Occupational Therapists, Philadelphia 1962, pp. 1-15.