

Chapter V

Results



Results from the disability survey

- Number of adults with physical disability
- Needs and aspirations
- Skills
- Case studies
- Attitudes toward disability

Results from the work situation analysis

- Job analyses
- Facilities
- Resources

5.1 Introduction

The community sense we strive for, is one in which there are shared perceptions of value of individual lives and a social commitment to protect them all equitably. Equitable recognition of needs is a prerequisite for community and equitable care for those needs is its goal. Larry Churchill.

To guide the development of a rural community to achieve such a goal one needs to understand the community and the barriers that stand in the way of equity. This study investigated some aspects of the social and physical complexities that prevent PWD from sharing in and contributing to community life.

This chapter presents the results of the survey to establish who the PWD are and what opportunities there are for them to be included in the development of employment opportunities in the community. The results of the data collection implemented to achieve the objectives of the study (see **Chapter VI 4.2.2** and **4.2.3**) will be presented per objective.

Descriptive statistical analyses are provided for the data of the quantitative investigations. Because of the small number of subjects identified, the data of the disability survey will also be assembled per individual and presented as case studies.

The data of the qualitative investigation will be summarised in the categories established. The insight gained will be used to give depth to the discussion of the results in the **Chapter VIII**.

The job matches generated are presented in **Chapter VI**.

5.2 Results

5.2.1 Objective 1: Draw up a community profile in terms of the adult PWD

The purpose of the household survey was to identify, by way of self-reporting, persons with physical problems for the disability assessment of Phase II.

A total of 475 households were visited in the three villages, Thombeni, Tsilitwa and Mtondela. The heads of household reported a total of 887 persons between the ages 16-40 years old living in the three villages of the area, of which 43 were reported to have a disability.

The following table illustrates the relevant figures from the Phase I survey.

Table 5.1 Demographics of population 16 - 40 years old in Tsilitwa

Households visited	Population (16-40 years)	Male	Female	Physical disability
475	887	363 (41%)	524 (59%)	43 (4,8%)

5.2.1.1 Number of adults with physical disability

In Phase II of the disability survey, the functional assessment was used to establish activity limitations that indicated physical disability. Of the 43 self-reported PWD, 31 persons could be followed up. The table below summarises the reasons for exclusion of 12 reported PWD from Phase I.

Table 5.2 Summary of persons excluded in Phase II of the disability survey.

Location of person with reported PWD	Reason for not being available for the assessment	Number of persons
Residing in a city (Johannesburg – 2 Cape Town – 2 East London – 1 Umtata – 1)	Living with family for the purpose of medical services, work	6
In neighbouring village	Being treated by traditional healer	1
Attending school (East London Pietermaritzburg)	Boarding at main stream schools	2
Elsewhere in the village (Collecting wood or visiting)	Independently mobile – were asked to come to the clinic for assessment but never arrived	1
Home (Over 40 years old, acute injury that should not cause long-term activity limitations)	Available for assessment	2

The results of the functional assessment identified 12 persons or 1.35% of the age group investigated as having physical impairments causing activity limitations.

The personal data from the questionnaire, collected during the functional assessment, can be summarised as follows:

- Gender: - Male subjects made up 66.6% (8 men) final study population and female subjects 33.3% (4 woman).
- Age: - The youngest PWD identified in the study age group was 22 and the oldest 38 years old, with 83% (10 persons) of the subjects in their thirties.
- Disability grant: - Forty two percent (5 persons) of the PWD were receiving governmental disability grants; one person was supporting six family members with his grant; 58% (7 persons) of the PWD who were not receiving a disability grant had dependents.
- Dependents: - Fifty percent (six persons) of the PWD in the area were responsible for family members; the highest number of dependents was six family members.

No formal diagnoses were provided. From information supplied by the clinic sisters, the PWD, their families and observations made by the researcher the following conditions were identified:

- Traumatic injuries: - One spinal injury and three head injury caused by faction and social violence,
- Cerebral palsy: - Two cases of birth trauma and one case that was reportedly identified at nine months,
- Neurological conditions: - Two cases of unidentified neurological lesions,
- Rheumatoid arthritis: - One case of chronic ailment resulting in activity limitations,

- Lower limb injuries: - Two cases of miscellaneous injuries.

Although two cases of amputations were reported, one upper limb and one lower limb amputation, no persons with amputations were living in the village at the time of the study.

The table below summarises the type of movement problems these persons had as a result of their conditions.

Table 5.3 Summary of movement problems of PWD in Tsilitwa

Category	Number (% - N=12)
Hemiplegia	4 (33%)
Paraplegia	3 (25%)
Cerebral palsy – quadriplegia	1 (8%).
Pain and limited range of movement	2 (17%)
Other – abnormal movement patterns	2 (17%)

The effect of these movement problems on activity were limitations in terms of mobility, hand function and balance.

- Mobility problems included moving about with assistive devices, such as wheelchairs, crutches, walking sticks,
- Hand function problems included one-handedness, limited range of movement or reduced muscle strength and endurance,
- Balance problems included difficulties to control postures and body movements without external support.

The table below summarises the results according to upper limb and lower limb activity limitations. Because of the combinations of upper and lower limb limitations (see **Table 5.3**) the table does not add up to a 100 percent.

Table 5.4 Summary of upper and lower limb involvement

Limbs affected	Number (% - N=12)
Upper limb	7 (58)
Lower limb	11 (92)
Both upper and lower limb	6 (50)

The high incidence of lower limb dysfunction indicates a high degree of mobility problems in the PWD in the area. Twenty five percent (3 persons) of the PWD found it difficult to walk over longer distances, while 50% (6 persons) made use of assistive devices to move around.

5.2.1.2 Needs and aspirations of the PWD and the community/care-givers for integration into the workplace

Aspirations

The qualitative data collected on aspirations was grouped under the following themes:

- Work related,
- Social,
- Rest,
- No aspirations.

The researcher recorded the aspirations as translated by the research assistant. The answers are thus not available in the PWD or caregiver's own words.

The following table provides an overview of the responses. Because the PWD could report more than one aspiration the table does not add up to a total of 100%.

Table 5.5 Summary of aspirations of PWD

Category	Number (% - N=12)
Work related responses (a desire to return to work, achieve a worker status, earn an income for a better life)	6 (50)
Social (be accepted by wider family, have a place in community)	2 (16)
Rest	1 (8)
No aspirations	5 (42)

Level of motivation and action

Their level of motivation could affect the aspirations of the PWD. To investigate this possible relation, the level of motivation was assessed according to the Vona du Toit Theory of Motivation and Action. Four of the five subjects who had no aspirations were under the levels of participation.

The following table illustrates the levels of Motivation and Action as assessed during the functional evaluation.

Table 5.6 Summary of evaluation of Level of Motivation and Action

Level of Motivation and Action	Number (% - N=12)
Active participation	4 (33)
Imitative participation	1 (8)
Passive participation	5 (42)
Self presentation	1 (8)
Self differentiation	1 (8)
Tone	0 (0)

Needs

Thirty three percent of the respondents (4 persons) reported more than one need. These needs had to do with assistive devices or equipment to improve their functionality; 58% (7 persons) reported one major need (see table below).

Table 5.7 Summary of needs assessment

Need	Percentage (N-12)
Assistive devices/equipment	4 (33)
Work	3 (25)
Money (by other means than work)	2 (17)
Other: transport/medication	2 (17)
None	1 (8)

5.2.1.3 Level of skills of PWD in the area

The situation did not allow for an in depth evaluation of work related skills. The information presented here is a summary of information gathered in the disability survey during Phase I and II.

The table below illustrates the PWD's level of education.

Table 5.8 Summary of level of education of PWD

Level of education	Number (% - N=12)
None	3 (25)
Primary school	5 (42)
Secondary school	3 (25)
Tertiary education – academic	0 (0)
Tertiary education – trade	1 (8)

Only one of the PWD had any formal training. However, five of the men had had in-service training, two as miners, one as farm labourer, one in a brick factory and one as electrician. None of the women had any training but had been involved in household tasks.

The following table summarises the work skills reported by the PWD. Because some PWD reported more than one kind of skill the table does not add up to a 100%.

Table 5.9 Summary of work related skills reported by PWD

Skills related to:	Number (% N=12)
Household tasks – including needlework	4 (33)
Agriculture	2 (17)
Animal husbandry	3 (25)
Mining	2 (17)
Brick making	2 (17)
Motor repairs	1 (8)
Shoe repairs	1 (8)
Electrical installations	1 (8)

5.2.1.4 Individual case studies

The 12 cases identified as PWD in the age group 16 – 40 in the Tsilitwa area are described as individual cases in this section under the following headings:

- Personal data: - age, gender and education,
- Condition: - self-reported diagnosis or according to clinic information and observation, cause and onset of the condition that caused disability,
- Aspirations and needs: - reported by PWD or caregiver in the interview during the functional assessment,
- Skills: - self-reported work related skills,
- Profile: - abilities and disabilities identified in the functional assessment (see **Appendix III**).

The scale for the assessment as described in Chapter IV is briefly summarised for interpretation. See Table 4.3 for full details.

Table 5.10 Assessment scale

Level	Definition of functioning
Level 1	Independent function (normal)
Level 2	Independent function (abnormal)
Level 3	Independent function (with assistive device or activity adaptation)
Level 4	Dependent function (with assistant)
Level 5	No function (total assistance)

Case I

Personal data

Age: 34 Gender: Female
Dependents: 0 Disability grant: No
Education: Secondary school – Grade 8

Condition

Cerebral palsy identified at nine months

Epilepsy

Level of motivation

Passive participation

Needs

She reported that she had no special needs.

Aspirations

She would like to be a teacher.

Skills

She is responsible for cleaning tasks in the home and is involved in the local crèche.

General observations

Ms T was found alone at home and was initially apprehensive and withdrawn. She participated willingly with all requests but remained inactive and non-contributing when no instructions were given. She became more animated when the children in the crèche were discussed. From discussion with the research assistant it appeared that circumstances have led to a passive role.

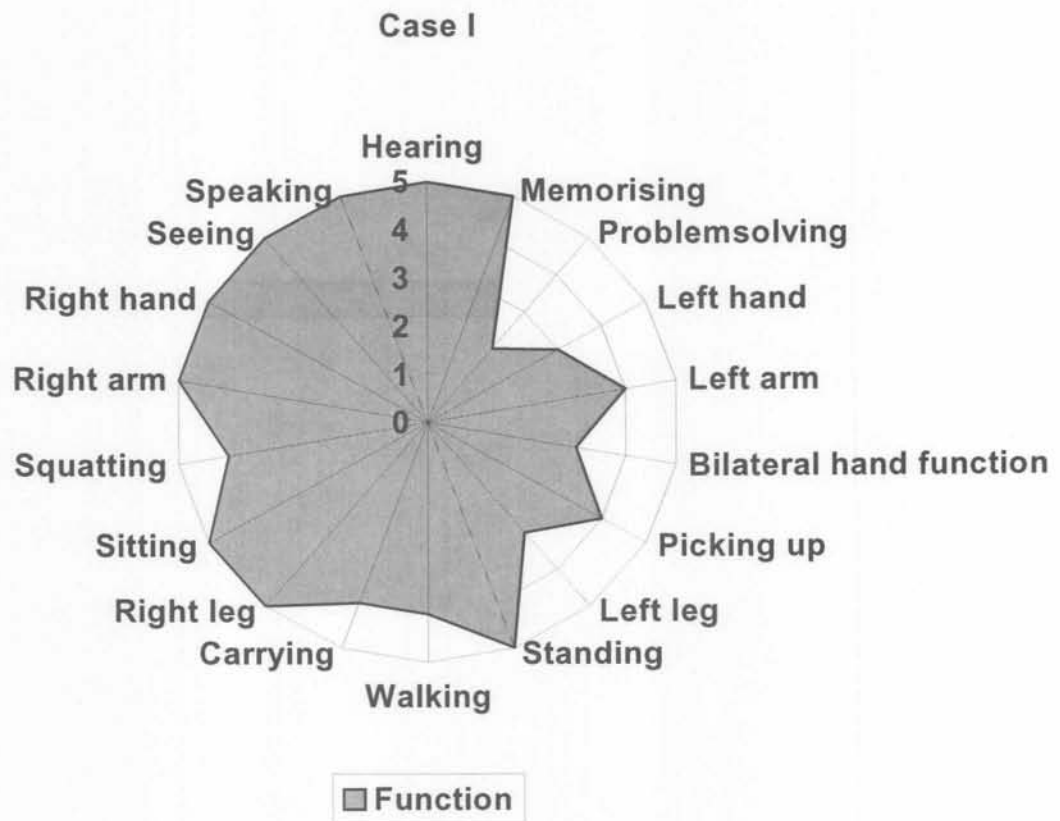


Figure 5.1 Profile of function: Case I

Ms N's movement patterns were abnormal and slow mainly because of increased muscle tone. She performed activities one-handed with the left hand performing support actions.

Case II

Personal data

Age: 22 Gender: Female
Dependents: 1 Disability grant: No
Education: Secondary school – Grade 11

Condition

Motor vehicle accident that caused loss of muscle in both lower limbs causing abnormal movement. The left leg is more affected than the right leg. The accident happened when she was 12 years old.

Level of motivation

Passive participation

Needs

She reported that she needed transport from and to within a distance that she could cope with. (The nearest stop for lifts to town was one km away – according to her mother she used to walk to school before the accident, approximately 10 km away.)

Aspirations

She would like to be able to do needlework.

Skills

She is not involved in tasks in the home. Her mother takes care of her child. She said pain prevented her from such activities.

General observations

Ms M did not show signs of pain during the assessment except during negotiating the steps outside the house. This seemed inconsistent with previous movements.

Case II

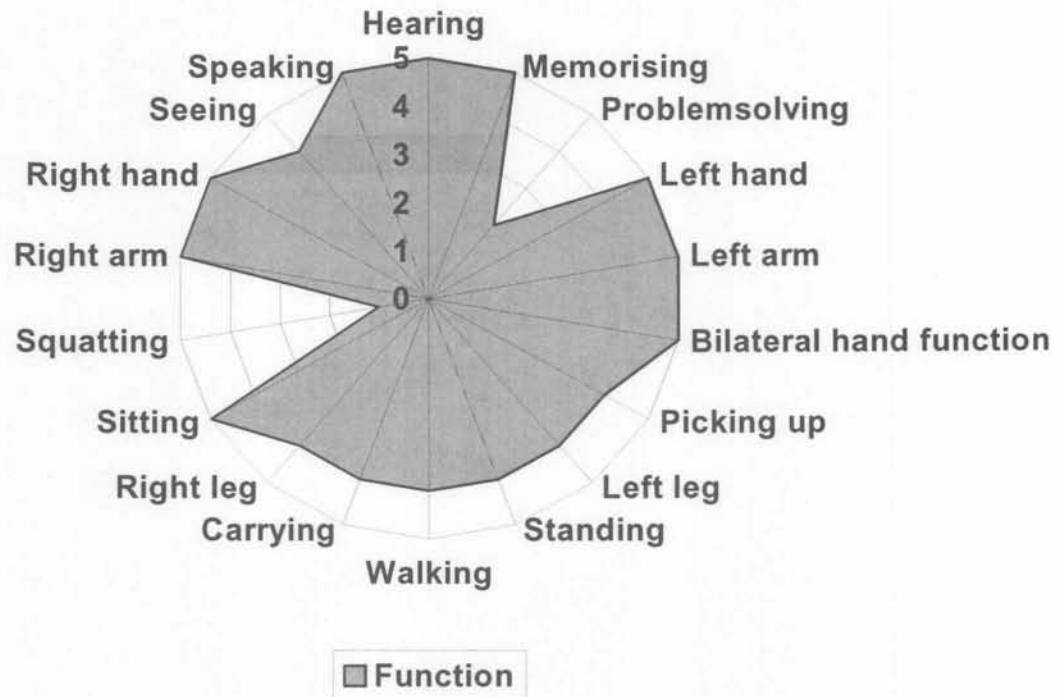


Figure 5.2 Profile of function: Case II

Ms M's visual problems would be followed up by the clinic from where she would be referred to an optician for glasses. She was mobile but walked with a limp (more weight bearing on the right leg than the left leg). She reported that she experienced pain after long periods of walking, standing and with squatting to pick up objects.

Case III

Personal data

Age: 31 Gender: Male
Dependents: 0 Disability grant: Yes
Education: None

Condition

Cerebral palsy – severely disabled since birth

Epilepsy

Level of motivation:

Self differentiation

Needs

The mother reported that he needed orthopaedic shoes and a wheelchair.

Aspirations:

None

Skills

None – mother takes care of personal management activities.

General observations

Mr G had severe difficulties carrying out the tasks of the functional assessment. He could not fasten the buttons and needed assistance with the activities that required mobility and is usually assisted in activities of daily living by his mother.

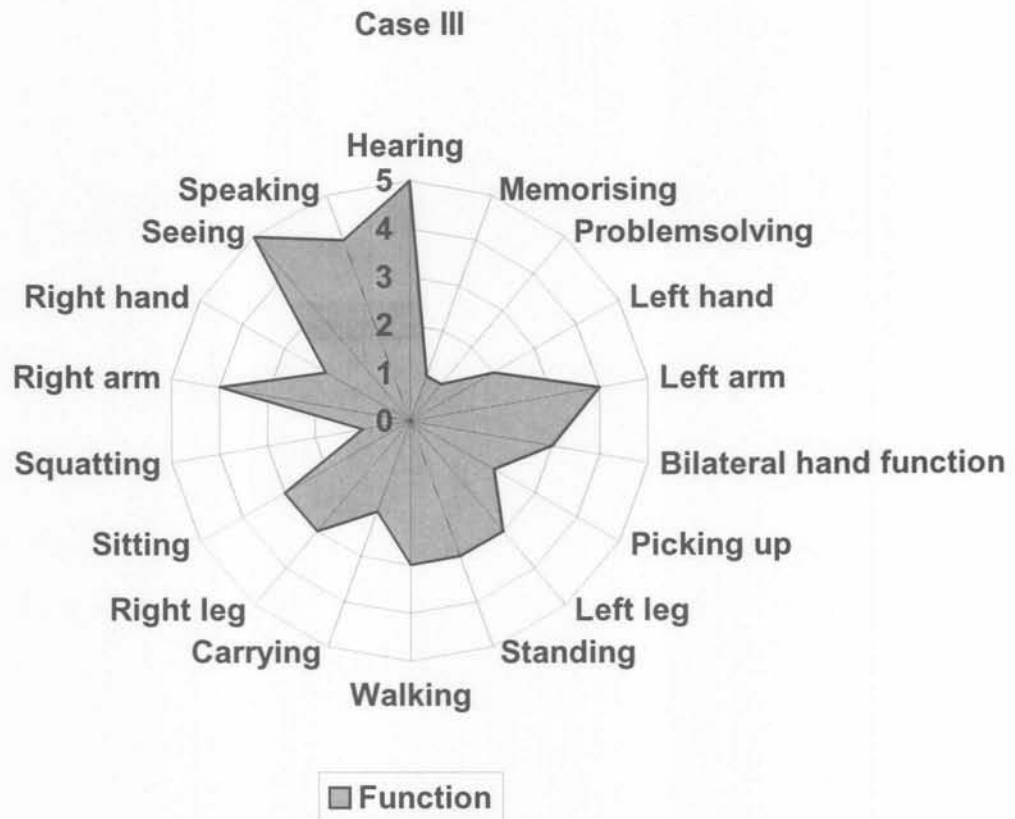


Figure 5.3 Profile of Function: Case III

Mr G used severely abnormal movement patterns caused by abnormal muscle tone. This affected the accuracy and speed of his activity performance and speech. Walking down the two steps from his house, for example, was a difficult task, which took a long time and a lot of effort. Fine co-ordination to fasten buttons could not be achieved.

Case IV

Personal data

Age: 38 Gender: Male
Dependents: 1(Mother) Disability grant: Yes
Education: None

Condition

Cerebral Palsy identified shortly after birth – mild quadriplegia

Level of motivation

Passive participation

Need:

His mother felt he was fine and had no special needs. She then thought he might benefit from training. She could not say what kind of training.

Aspirations

To rest

Skills

The mother involves him in tasks like brick making otherwise he joins the boys in cattle watching. He appears to be able to follow instructions and contribute to a collective task.

General observations

Mr S has been cared for by his mother since birth. He is neatly dressed and well mannered. She takes him with her to family and social gatherings where he plays a passive role. He is not independent and functions only under supervision.

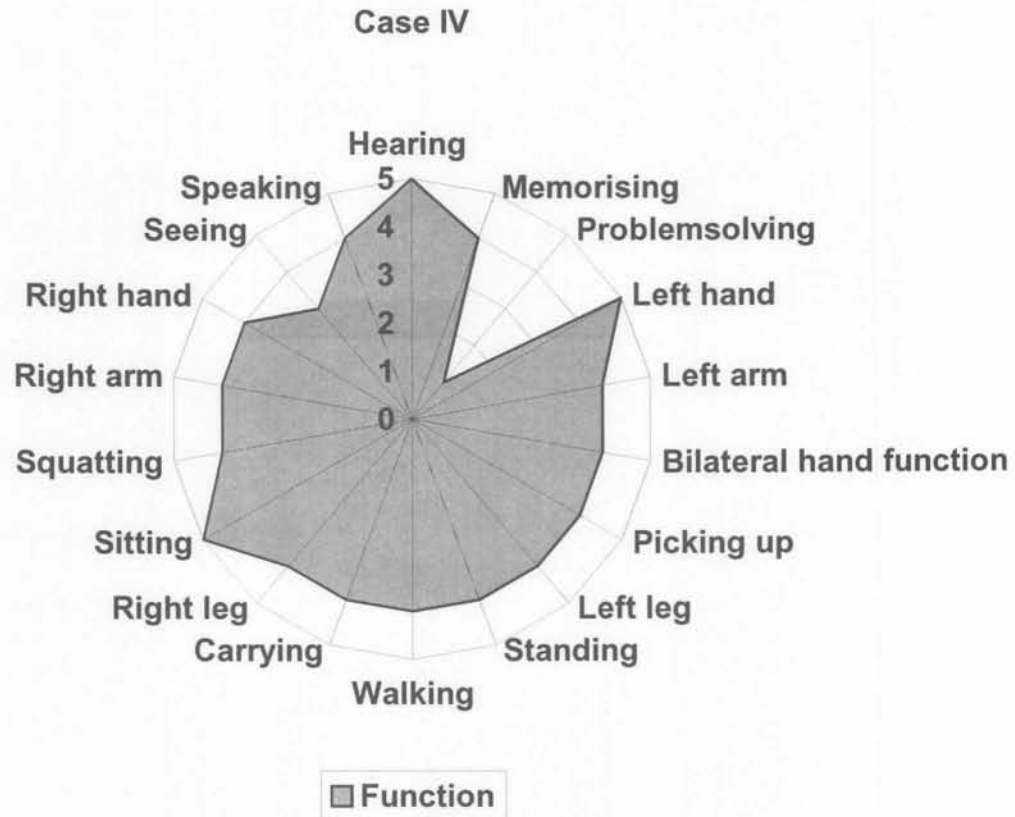


Figure 5.4 Profile of function: Case IV

Mr S's visual problems might be improved with glasses and would be followed up by the clinic. His hearing was functional if he was addressed from the right. The abnormal movement patterns and the speed of his movements were affected by abnormal muscle tone. He demonstrated some balance problems in walking on uneven surfaces and in squatting. Associated reactions appeared in resisted movements.

Case V

Personal data

Age: 36 Gender: Male
Dependents: 4 Disability grant: No
Education: None

Condition

Incomplete spinal injury caused by a fight two years ago.

Level of motivation

Active participation – he showed initiative in carrying out the suggestions to make his house more accessible and to use his time more productively.

Needs

A toilet and a path to it.

Aspirations

In the interview he only mentioned he would like to walk again. However, in other discussions he explained plans to procure an income through repairs of radios and shoes for friends.

Skills

After some exposure in leatherwork in occupational therapy at the Bedford Hospital he made himself tools and developed skills for shoe repairs.

General observations

Mr B was seen on various occasions during the study. Initially he appeared depressed and did not leave his bed. He reacted well to suggestions to improve his situation but because of the uneven surface around his house he was limited to a small area in which he could negotiate his wheelchair.

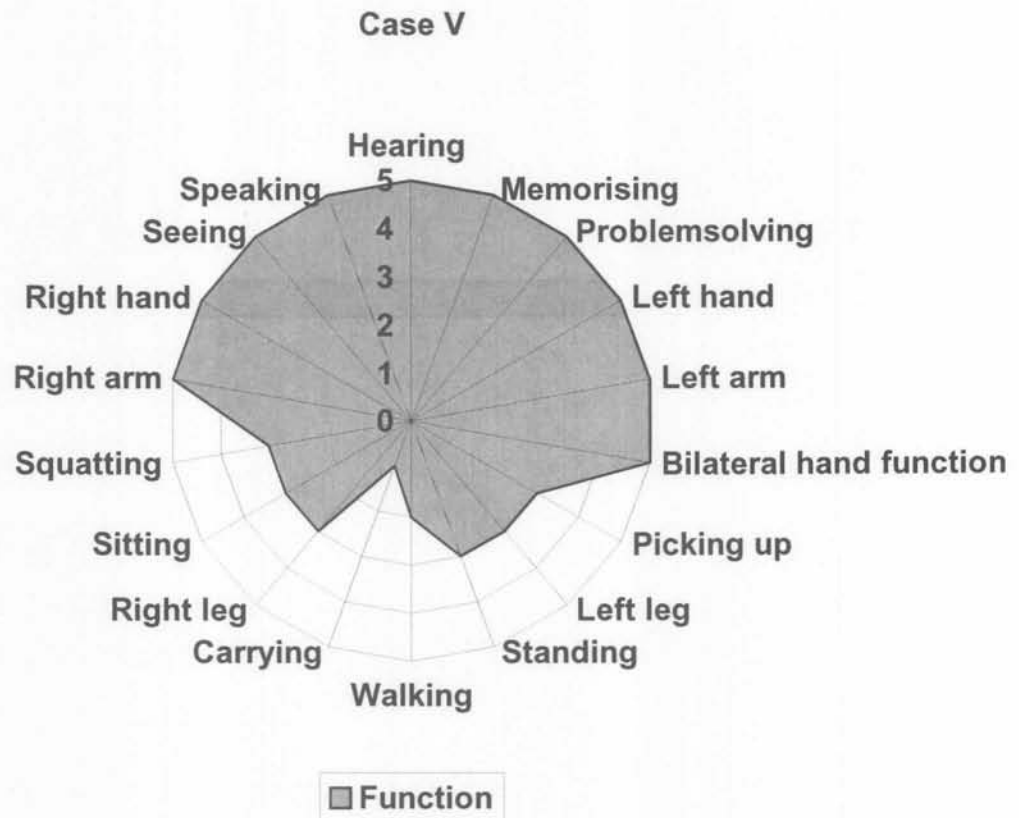


Figure 5.5 Profile of function: Case V

Mr B's skills to handle his wheelchair were affected by some balance problems but were slow mainly due to the long period of not using his wheelchair before the researcher's first visit. He walked between the parallel bars his friends had helped him to erect. The right leg had more movement than the left. Because of poor dorsi flexion at the feet and hip movement only small shuffling steps could be taken.

Case VI

Personal data

Age: 38 Gender: Male
Dependents: 2 Disability grant: No
Education: Tertiary level – trade: Motor mechanic N3

Condition

He sustained an injury to his legs in a motor vehicle accident six years ago causing difficulties with mobility.

Level of motivation

Active participation

Needs

He expressed the need for tools to effectively carry out motor repairs for people in the village.

Aspirations

He would like to establish his own workshop for motor repairs.

Skills

He uses his formal training to repair motor vehicles in the village and volunteers as teacher in the local high school in the auto shop.

General observations

Mr M is often seen walking in the village, to school, meetings or friends. He participates actively in the community. When he was given a lift on one occasion it was observed how much effort and time was spent on reaching his destination.

Case VI

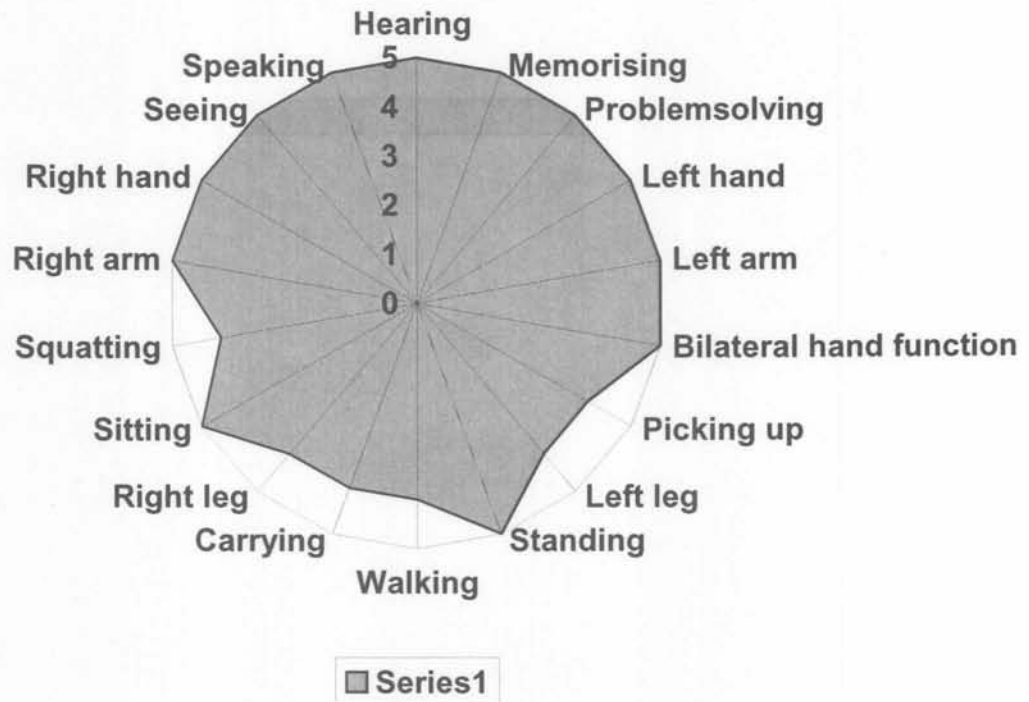


Figure 5.6 Profile of function: Case VI

The right knee and both hips had normal movement. The lack of dorsi flexion of both ankles affected his gait especially over uneven surfaces.

Case VII

Personal data

Age: 38 Gender: Male
Dependents: 5 Disability grant: No
Education: Secondary school

Condition

He sustained an injury to his legs during a blast in a mine 13 years ago. According to Mr J he was injured because of a curse – this interpretation suggests possible traumatic brain injury.

Level of motivation

Active participation

Needs

An income

Aspirations

He expressed that he would like to be able to work again.

Skills

He worked the pumps in the mines. However, he does not have any special skills that he learned as a miner. He has been taking care of his neighbours' goats and has some knowledge of animal care.

General observations

Mr J is dependent on the generosity of his family and appeared grateful for the opportunity to care for the goats. He spends most of his time during the day sitting in front of his house.

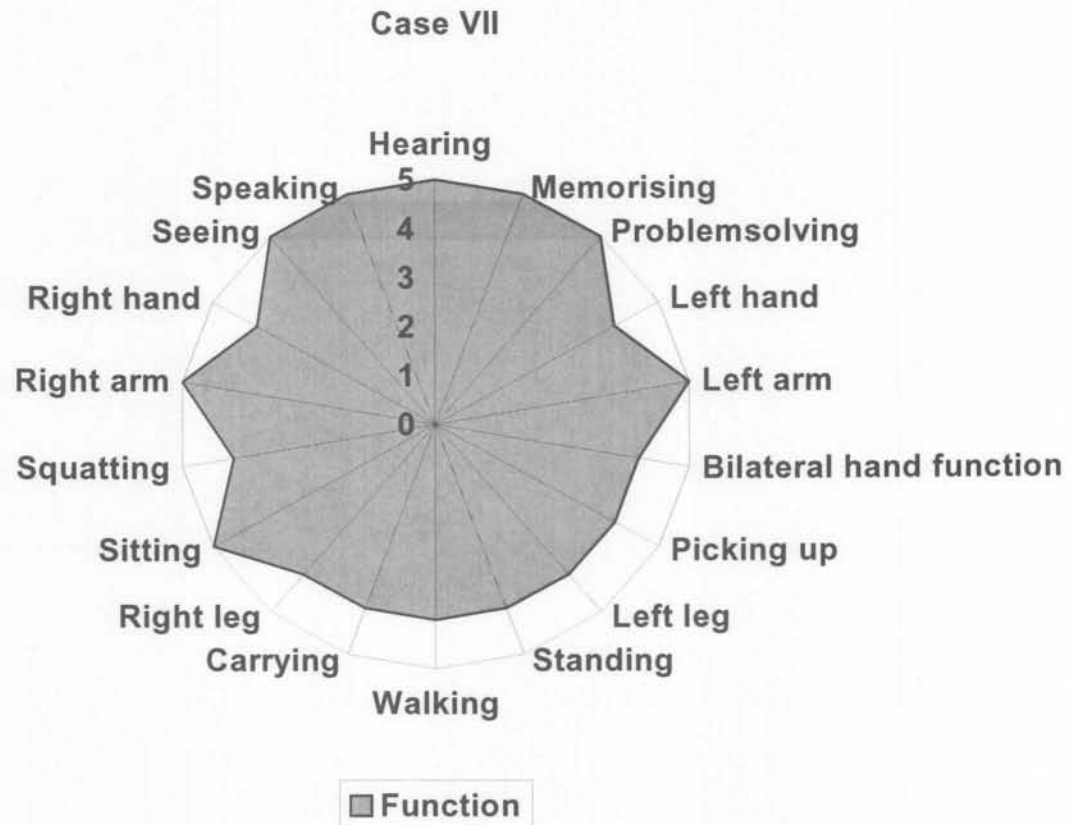


Figure 5.7 Profile of function: Case VII

Pain appeared to affect Mr J's function in terms of range of movement and speed. He also appeared to have some proprioceptive fall out, which was observed in the hand function and reported by him in his feet. He walked with an unilateral external support.

Case VIII

Personal data

Age: 36 Gender: Female
Dependents: 0 Disability grant: Yes
Education: Primary school

Condition

Rheumatoid arthritis - reportedly since her late teens.

Level of motivation

Passive participation

Needs

She expressed a need for a reduction in pain caused by her condition.

Aspirations

None

Skills

She assists with light household tasks, but has no specific responsibilities.

General observations

Ms S expressed that her long-term suffering justified her not having to participate in household activities and that she was not interested in work related activities that might be planned.

Case VIII

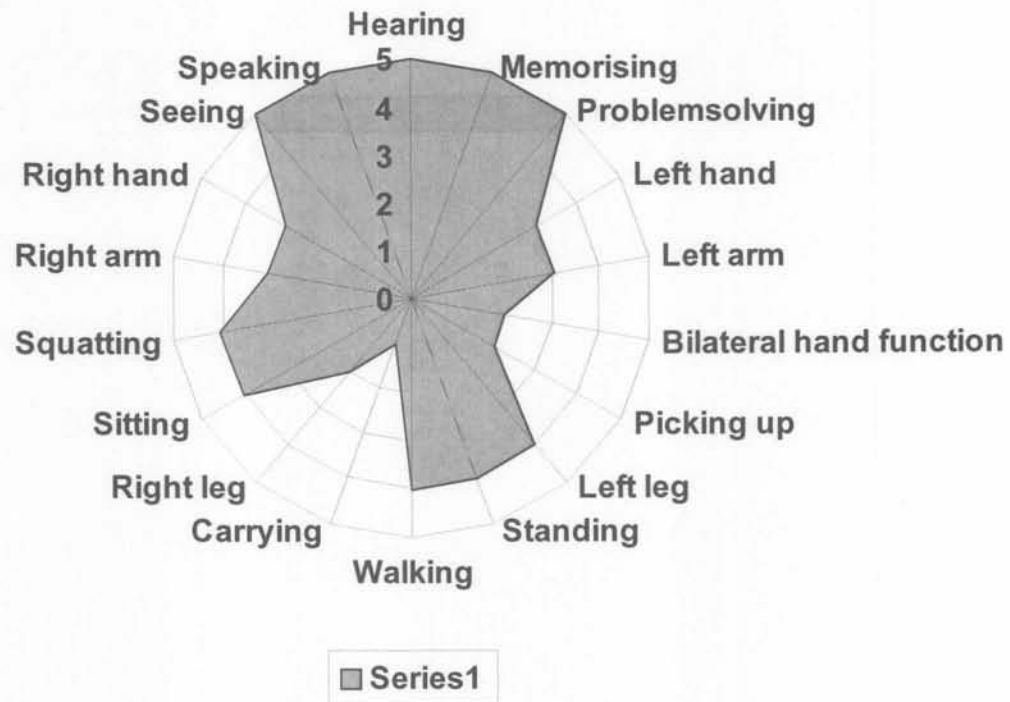


Figure 5.8 Profile of function: Case VIII

Ms S's chronic condition had affected the range of motion throughout, but more in the upper limbs than the legs. She also experienced the same pattern with pain. Both these factors affected her posture and to some extent her balance.

Case IX

Personal data

Age: 28 Gender: Male
Dependents: 0 Disability grant: Yes
Education: Primary school

Condition

Traumatic brain injury sustained during a violent strike eight years ago

Level of motivation

Self presentation

Needs

His mother said that she did not know of anything he might need, except some advice.

Aspirations

Mother said that she did not know of any.

Skills

He had worked in a brickyard and planted trees for a nursery, in both instances as a labourer with no special training.

General observations

Mr F reacted inappropriately to the situation and appeared surprised at being able to complete the tasks given in the assessment. He does not carry out any tasks except personal management, which he appears to do under supervision.

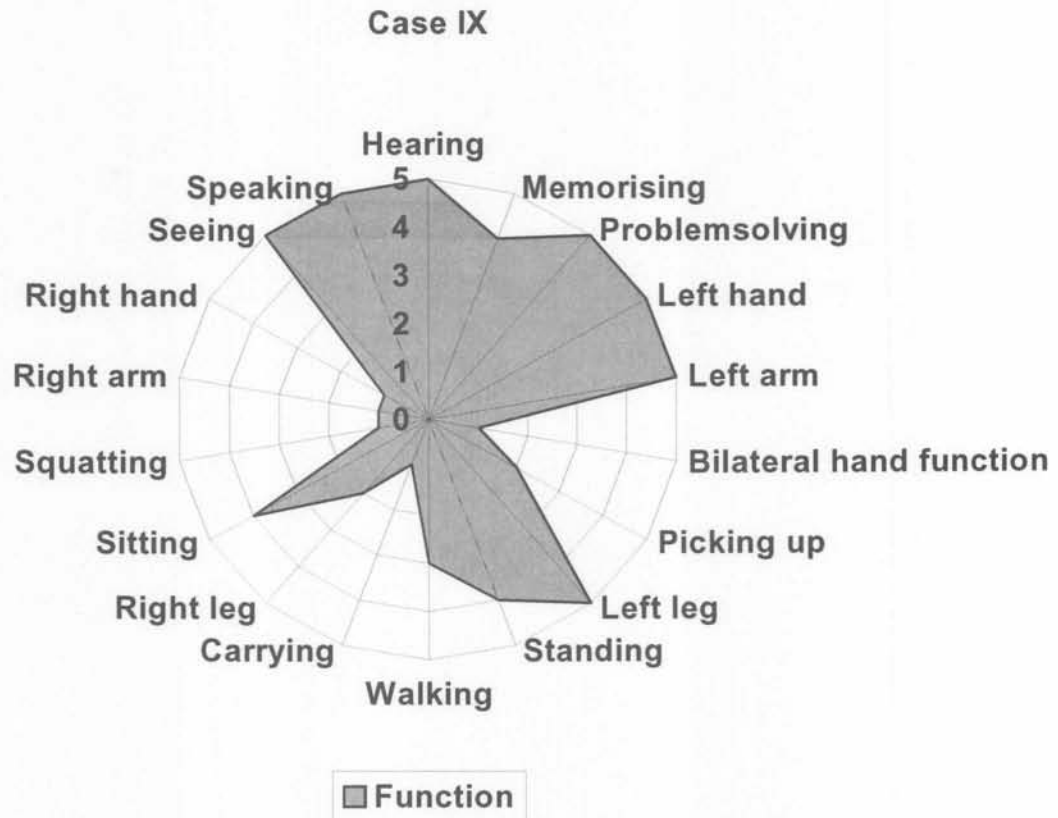


Figure 5.9 Profile of function: Case IX

The slight expressive aphasia slowed down communication and the accuracy of the memory assessment. Increased muscle tone was the main reason for his mobility and postural problems. He had difficulty with weight bearing because of clonus in the right foot and walked with a hemi gait pattern supporting himself with a crutch. The use of the crutch with his good side and the balance problems affected his ability to carry objects.

Case X

Personal data

Age: 39 Gender: Male
Dependents: 6 Disability grant: Yes
Education: Primary school

Condition

Traumatic brain injury caused by a gunshot during faction fighting three years ago

Level of motivation

Imitative participation

Needs

He expressed the need for work, which he could do sitting down.

Aspirations

To work again

Skills

He received in-service training at a firm that installed alarms in Germiston and thought he might be able to remember how to do electrical wiring.

General observations

Mr S was interested in the various tasks given in the assessment and enjoyed the attention. According to his wife he played a passive role in the household. He was later voted into the Tsilitwa Committee of PWD.

Case X

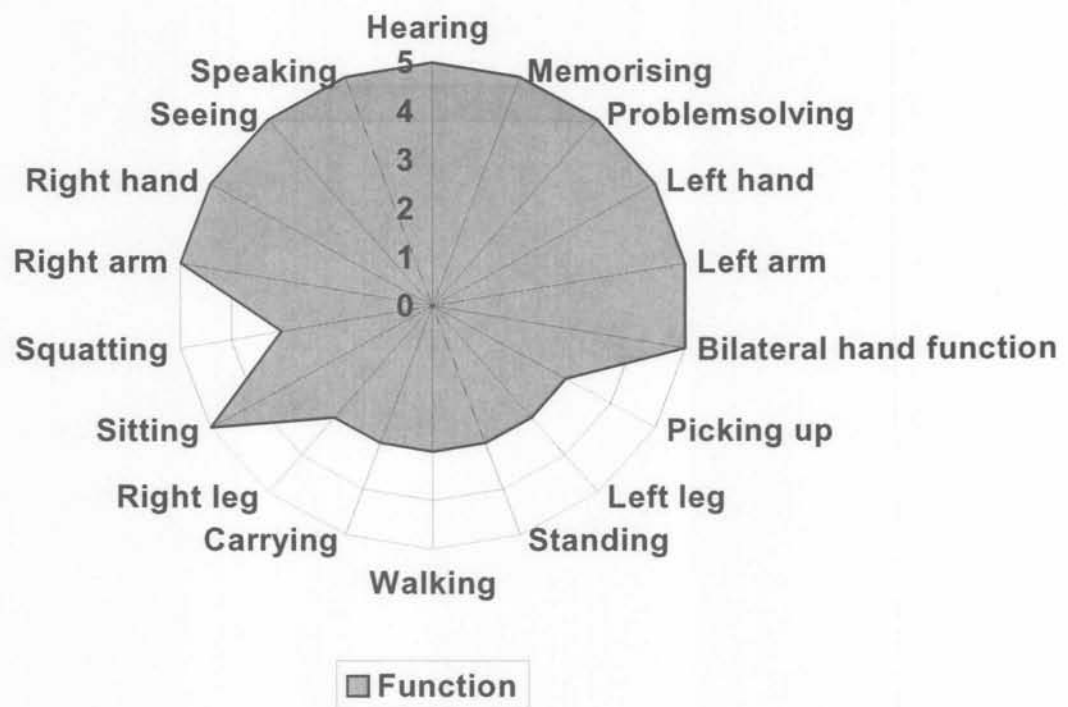


Figure 5.10 Profile of function: Case X

Mr S needed external support to stand up, walk and carry an object. A lack of postural control and control over leg movements demanded the use of a walking stick and caused him to prefer turning around backward rather than forward.

Case XI

Personal data

Age: 37 Gender: Female
Dependents: 0 Disability grant: No
Education: Primary school

Condition

Hemiplegia – arm more affected than the - leg since birth

Level of motivation

Active participation

Needs

She reported that she needed money.

Aspirations

None

Skills

Skills involved in performing household tasks

General observations

Ms L appeared to have adapted to doing tasks with one hand. Although she appeared withdrawn during the assessment she was observed to interact well with others socially and participated fully in activities.

Case XI

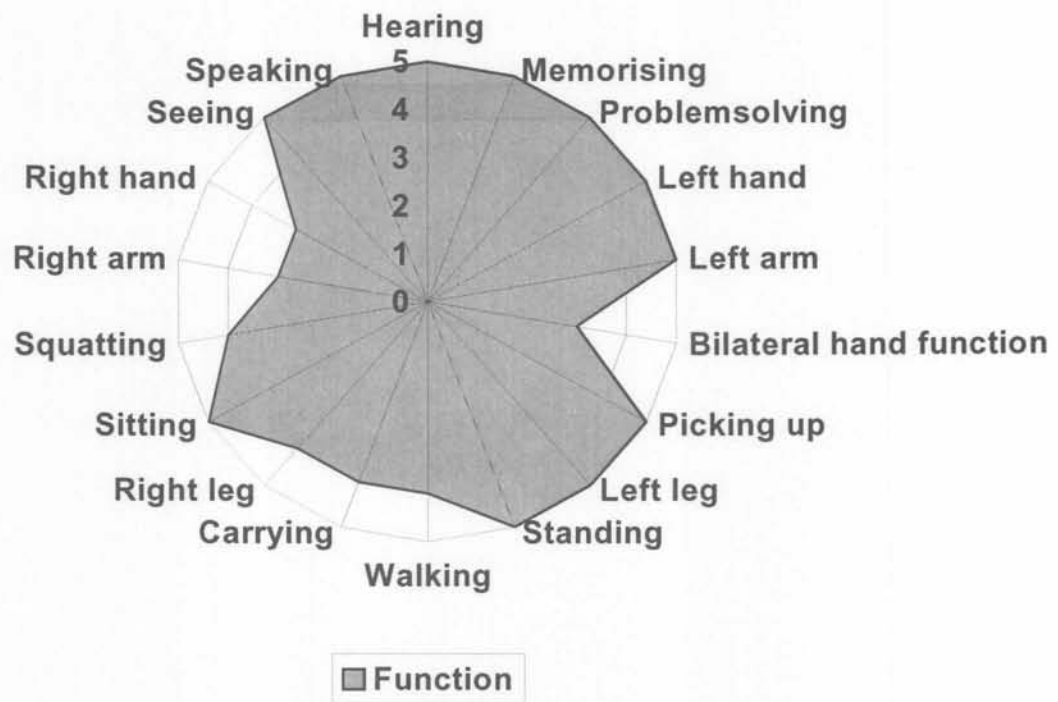


Figure 5.11 Profile of function: Case XI

Ms L had adapted to functioning one-handed. Abnormal muscle tone affected her movement patterns, the speed of her gait and balance during tasks like squatting and walking.

Case XII

Personal data

Age: 39 Gender: Male
Dependents: 0 Disability grant: No
Education: Secondary school

Condition

The family reported a sudden onset of problems with an unknown cause, three years ago – the researcher considered the possibility of a stroke.

Level of motivation

Passive participation

Needs

He said he needed a fowl run.

Aspirations

He would like to farm with poultry to procure an income.

Skills

He was a miner erecting supports in new tunnels for which he had in-service training. He felt he had the necessary knowledge and skills for the poultry farming.

General observations

Mr J was passive during the assessment and the interview with an apathetic attitude to the tasks given. He suddenly became vocal and interested when discussing his past.

Chapter VI

Job match

Case XII

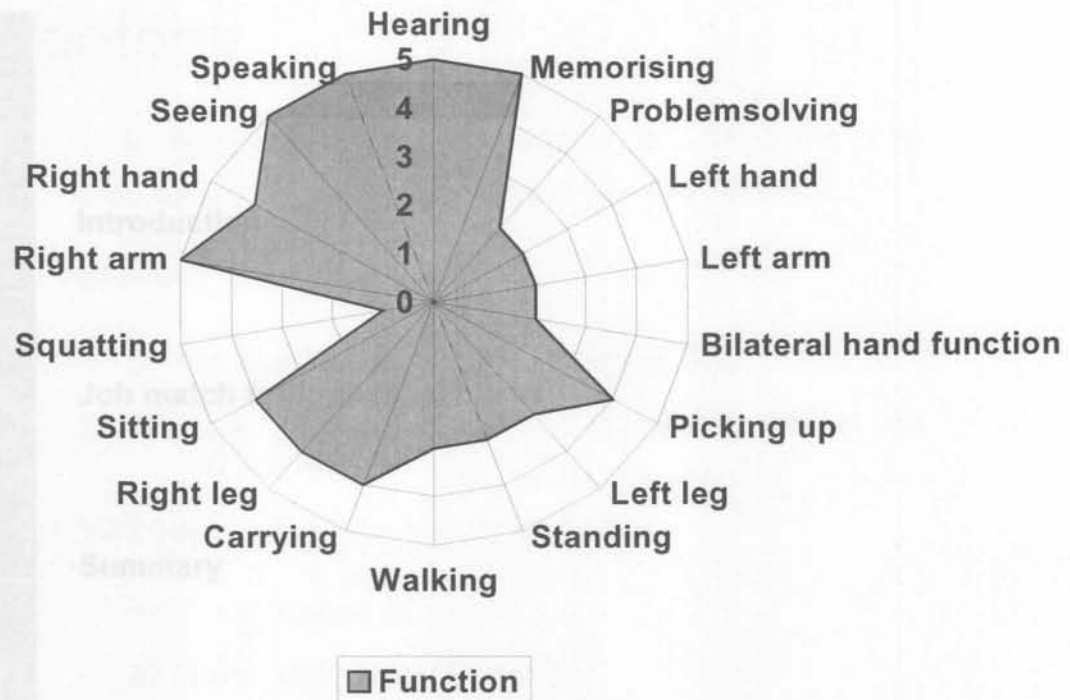


Figure 5.12 Profile of function: Case XII

Abnormal muscle tone and associated reactions affected the speed, and accuracy of Mr J's movements. It also was evident in his posture and gait and affected his balance. He performed activities one-handed with decreased accuracy and speed.

A job match for a PWD is a complex problem solving process. The level of functioning of the person is the most important factor to consider in the match. If the level of motivation and action is not addressed correctly, the person will not use his/her abilities and skills effectively. The level of motivation and action is that also matched to the job requirements. If there is not a complete match the possibilities to compensate with supervision and structure are investigated to establish a match.

Attitudes of the PWD, caregivers and community to equal employment opportunities for PWD

Of the 100 persons expected at the community survey meeting about 50 arrived (see **4.5.1.2 Visit 8 and 9**). The final number of participants in the survey was 39 persons. Two of the 43 reported to have disabilities in the Phase I survey attended the meeting as well as family members of some others. The rest of the group were ordinary residents of the area.

The responses from the attitude survey can be summarised in the following three themes for each of the two aspects surveyed (attitude toward the role of the PWD in the family and in the community):

- Value of the person to the family or community,
- Function of the person in the family or community,
- Burden on the family or community.

The scribes summarised the points on which the group reached consensus. Therefore no statistics can be given on how many persons in the group voiced a specific attitude or whether a response reflects the attitude of a PWD, family member or community member.

The following tables summarise the responses of the four groups. The responses will be quoted verbatim in the chapter on discussion of results to give depth to the interpretation of the results.

Table 5.11 Summary of attitudes to PWD's position in the family

Category	Attitude
Value of the person to the family	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Belongs in the family ■ Is loved and respected ■ Should retain his/her status in the family
Function of the person in the family	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Can be a contributing member according to ability ■ Should receive support for further treatment, and training to further abilities
Burden on the family	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Need to be cared for, for their personal and financial security ■ Need sheltering because of their vulnerability

Table 5.12 Summary of attitudes to PWD's position in the community

Category	Attitude
Value of the person to or community	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Are valued for their experience ■ Should be treated equitably
Function of the person in community	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Should be included in meetings ■ Can contribute economically with training
Burden on the community	<p>The PWD:</p> <ul style="list-style-type: none"> ■ Need protection ■ Need special facilities

5.2.2 Objective 2: Investigate the planned job creation projects in the IRDM for suitable integration of the PWD

5.2.2.1 Job analyses of planned projects

The job analyses were done according to the scale developed to match the functional assessment (see 4.2.2). The scale reflects the assistance needed to complete a task safely and successfully.

The analyses reflect the requirements to perform a task normally. Level 3 indicates whether an aspect would be used in an alternate position or following an adapted method, which in normal performance would not be required to perform the task. This information will be used to make the job match when adaptations are required.

The evaluation of the PWD's ability to solve problems examined the integration of insight, judgment and abstract thinking. Requirements of these higher cognitive functions were combined under the aspect of problem solving.

The analysis process was as follows:

- Identify tasks involved in the work process,
- Determine requirements for completion of the task for each of the aspects evaluated in the functional assessment in each of the tasks,
- Apply scale,
- Identify highest performance level required to complete all the tasks in the work process.

The results of the analyses of the five projects will be presented according to this process.

Leatherwork

No local leatherwork projects were operational at the time of the study. The leatherwork analysis was then carried out in the occupational therapy department at Bedford Hospital by video recording the occupational therapy assistant in a variety of leatherwork activities which he performed from a wheelchair because of his spinal lesion.

The request to include leatherwork in the study was mainly for shoe repairs as a project. To extend the request to include other types of leatherwork needed the inclusion of only one task, namely the punching of holes. The analysis presented here includes this task so that there is wider application and the work process thus includes the making of leather articles like belts and bags.

The following table illustrates the requirements for the various tasks that need to be executed for the leatherwork process.

Table 5.13 Summary of leatherwork tasks

Task	Cutting	Sewing Lacing	Gluing	Nailing	Sanding	Punching
Hearing	1	1	1	1	1	1
Memorising	4	4	4	4	4	4
Problem solving	5	4	4	5	5	4
Left hand	5	5	4	4	5	5
Left arm	5	5	4	4	5	4
Bilateral hand function	5	5	4	4	5	5
Picking up	3	3	3	3	3	3
Left leg	1	1	1	1	1	1
Standing	1	1	1	1	1	1
Walking	3	3	3	3	3	3
Carrying	3	3	3	3	3	3
Right leg	1	1	1	1	1	1
Sitting	5	5	5	5	5	5
Squatting	1	1	1	1	1	1
Right arm	5	5	5	5	5	5
Right hand	5	5	5	5	5	5
Seeing	4	4	4	4	4	4
Speaking	1	1	1	1	1	1

The following figure illustrates the highest levels of requirements for leatherwork.

Leatherwork

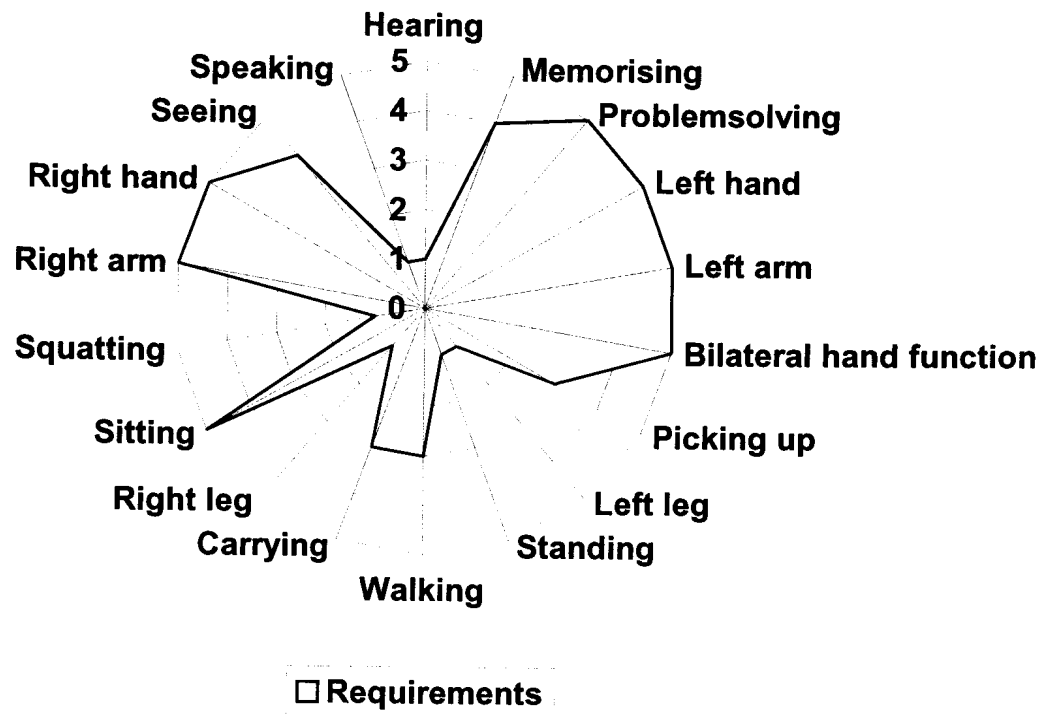


Figure 5.13 Profile of requirements for leatherwork

This profile illustrates that leatherwork is mainly carried out as an upper limb function. It is a bilateral activity, which can be carried out in sitting. Adapted methods can be used for walking and carrying. For finer detail, vision is essential but routine work can be done by compensating with touch.

Problem solving ability and insight are important in repair work. Routine manufacture of leather articles would not demand as much memory as intricate craftsmanship of a variety of articles.

Needlework

At the needlework project visited, the women were also doing traditional beadwork. The actions of the beadwork were analysed. It was found that the requirements could be compared to those of hand sewing and were included in the analysis as such.

The following table illustrates the requirements for the various tasks that need to be executed for the needlework and beadwork processes.

Table 5.14 Summary of needlework tasks

Task	Cutting	Pinning	Hand sewing/ beadwork	Hand machine sewing	Electric machine sewing
Hearing	1	1	1	1	1
Memorising	5	4	4	4	4
Problem solving	5	5	4	5	5
Left hand	4	5	5	4	4
Left arm	4	5	5	4	4
Bilateral hand function	4	5	5	5	4
Picking up	3	3	3	3	3
Left leg	1	1	1	1	1
Standing	1	1	1	1	1
Walking	3	3	3	3	3
Carrying	3	3	3	3	3
Right leg	1	1	1	1	4
Sitting	5	5	5	5	5
Squatting	1	1	1	1	1
Right arm	5	5	5	5	5
Right hand	5	5	5	5	5
Seeing	5	5	5	5	5
Speaking	1	1	1	1	1

The following figure illustrates the highest levels of requirements for needlework and beadwork.

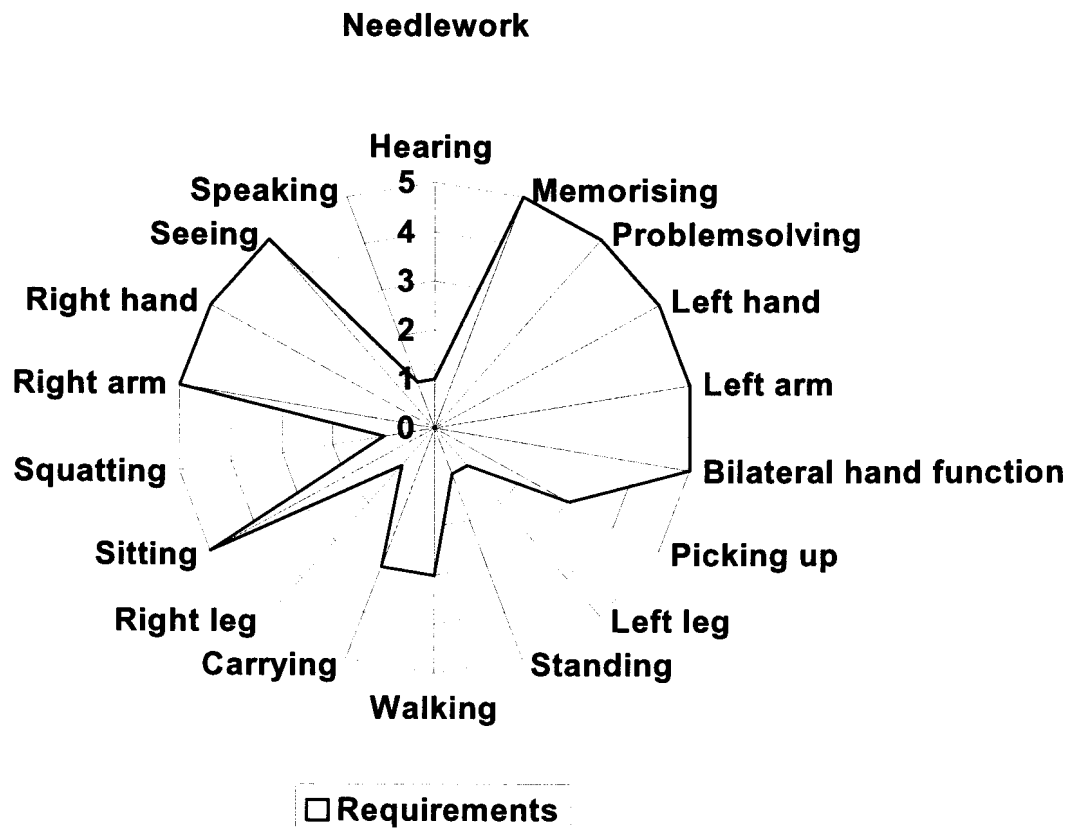


Figure 5.14 Profile of requirements for needlework

Needlework is an activity that requires mostly upper limb function. It is a bilateral hand activity that can be carried out in sitting. If structured correctly, once the position has been taken up, no further mobility is needed. Adapted methods can be used for walking and carrying. Vision is important for safety in cutting, pinning and machine work. One lower limb should be functional for machine sewing.

Higher cognitive functions, especially judgement, are important to deliver a marketable product.

Gardening

Food production projects like vegetable gardening are one of the first projects in most rural development programmes. There are many documented methods for such projects. The one analysed was typical for co-operative gardening projects in the region, in which traditional methods are favoured.

The following table illustrates the requirements for the various tasks that need to be executed for gardening.

Table 5.15 Summary of gardening tasks

Task	Digging	Planting	Weeding/ hoeing	Watering	Harvesting
Hearing	1	1	1	1	1
Memorising	4	4	4	4	4
Problem solving	4	4	5	4	5
Left hand	5	5	5	4	5
Left arm	5	5	5	4	5
Bilateral hand function	5	5	5	4	5
Picking up	5	5	4	5	5
Left leg	5	5	5	5	5
Standing	5	5	5	5	5
Walking	5	5	5	5	5
Carrying	5	5	5	5	5
Right leg	5	5	5	5	5
Sitting	1	1	1	1	1
Squatting	4	5	4	4	5
Right arm	5	5	5	5	5
Right hand	5	5	5	5	5
Seeing	5	5	5	5	5
Speaking	1	1	1	1	1

The following figure illustrates the highest levels of requirements for gardening.

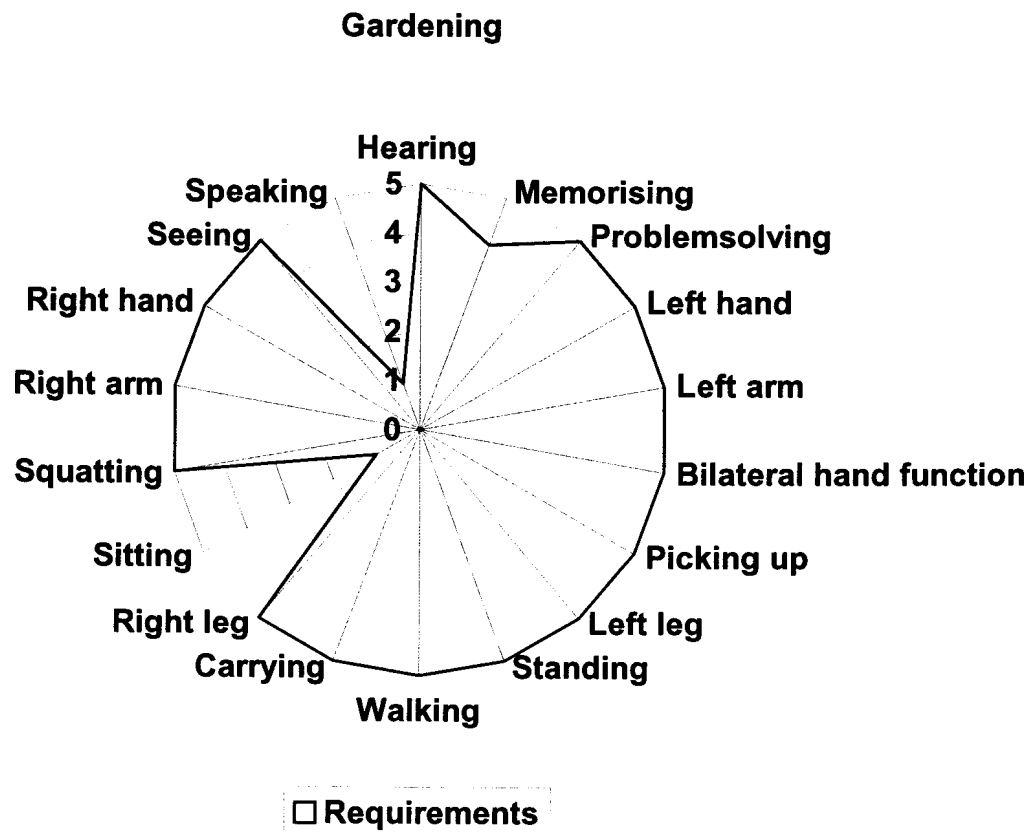


Figure 5.15 Profile of requirements for gardening

Gardening is an activity that requires comprehensive physical functioning, strength and endurance. The gardener needs to be mobile especially over the local hilly terrain. He/she needs bilateral hand function and strength to operate the heavy traditional tools, carry water in the local conditions and manoeuvre the harvest.

Judgement and problem solving skills are important to ensure a good crop but routine could compensate for less functional memory.

Poultry farming

Poultry farming, as it is practised in the rural area visited, can be described as free-range farming. The chicks are kept indoors for the first week and then join the adult chickens. The chickens are kept in a fowl run overnight and roam free in a fenced area during the day. The chickens are sold live, thus no slaughtering tasks have been included.

The following table illustrates the requirements for the various tasks that need to be executed for the poultry farming process.

Table 5.16 Summary of tasks involved in poultry farming

Task	Handling chicks	Feeding	Collecting eggs	Selling
Hearing	4	4	4	5
Memorising	4	5	4	5
Problem solving	5	5	4	5
Left hand	4	4	4	4
Left arm	4	4	4	4
Bilateral hand function	4	4	4	4
Picking up	5	5	5	4
Left leg	4	4	4	4
Standing	5	5	5	4
Walking	5	4	5	4
Carrying	4	5	5	4
Right leg	5	5	5	5
Sitting	1	1	1	1
Squatting	4	1	5	1
Right arm	5	5	5	5
Right hand	5	5	5	5
Seeing	5	5	5	5
Speaking	1	1	1	5

The following figure illustrates the highest levels of requirements for poultry farming.

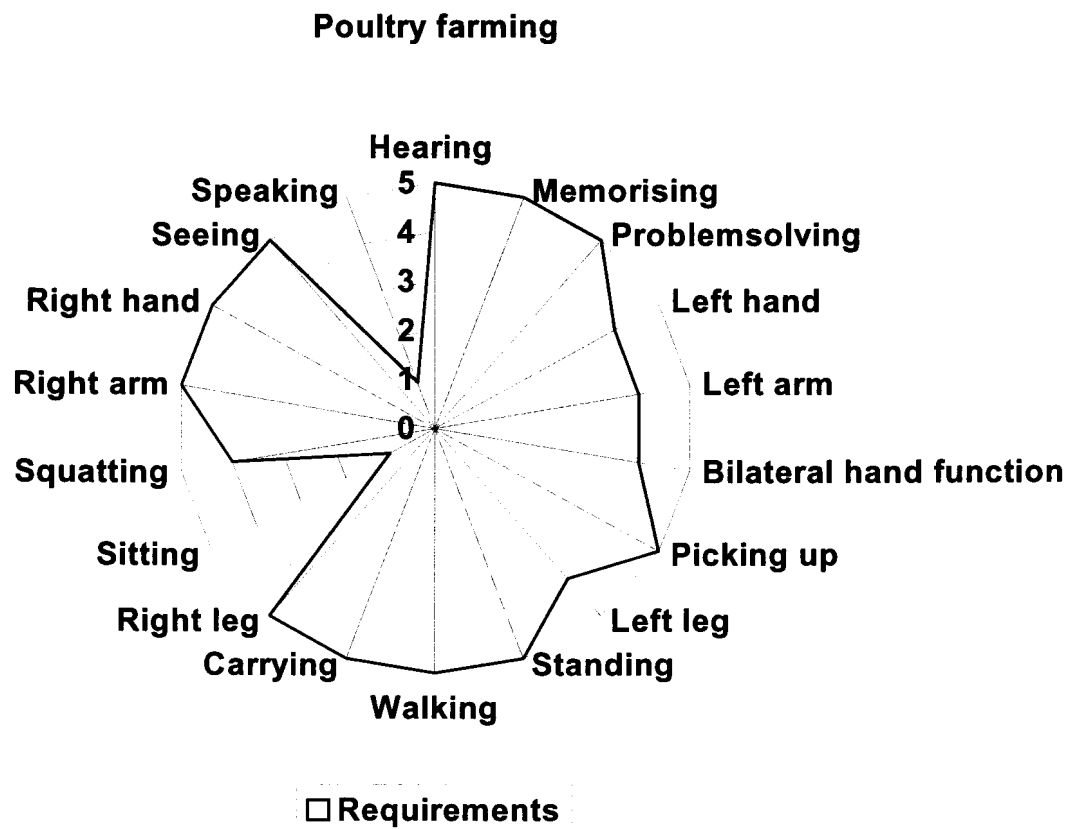


Figure 5.16 Profile of requirements for poultry farming

The profile indicates that many of the tasks for poultry farming do not necessarily require bilateral hand function. Walking and carrying, however, are necessary for the rounding up of the chickens and the collecting of eggs which in the local nesting areas could require walking over uneven terrain. Vision is important to ensure that the chickens are well and to find them in the free-range farming style. Speech is a requirement for the buying and selling process of the activity.

Memory, judgement and problem solving skills are important for farming with poultry and livestock.

Baking

Bread was the most profitable baking product during the study. No skills for cake decorating have been included; the analysis focuses on bread baking only. Although the project analysed used a wood-fired clay oven, the tasks involved in heating the oven have been left out as the project in Tsilitwa will be using electric ovens.

The following table illustrates the requirements for the various tasks that need to be executed for the bread baking process.

Table 5.17 Summary of bread baking tasks

Task	Mixing ingredients	Kneading	Dough handling	Pan handling	Baking
Hearing	1	1	1	1	1
Memorising	5	4	4	4	5
Problem solving	5	4	5	5	5
Left hand	4	4	5	5	5
Left arm	4	4	5	5	5
Bilateral hand function	4	1	4	5	5
Picking up	4	1	4	5	5
Left leg	4	5	1	5	5
Standing	5	5	1	5	5
Walking	5	1	1	1	5
Carrying	5	1	1	5	5
Right leg	4	1	1	5	5
Sitting	1	1	3	5	5
Squatting	1	1	1	1	5
Right arm	5	5	5	5	5
Right hand	5	5	5	5	5
Seeing	5	4	5	5	5
Speaking	1	1	1	1	1

The following figure illustrates the highest levels of requirements for bread baking.

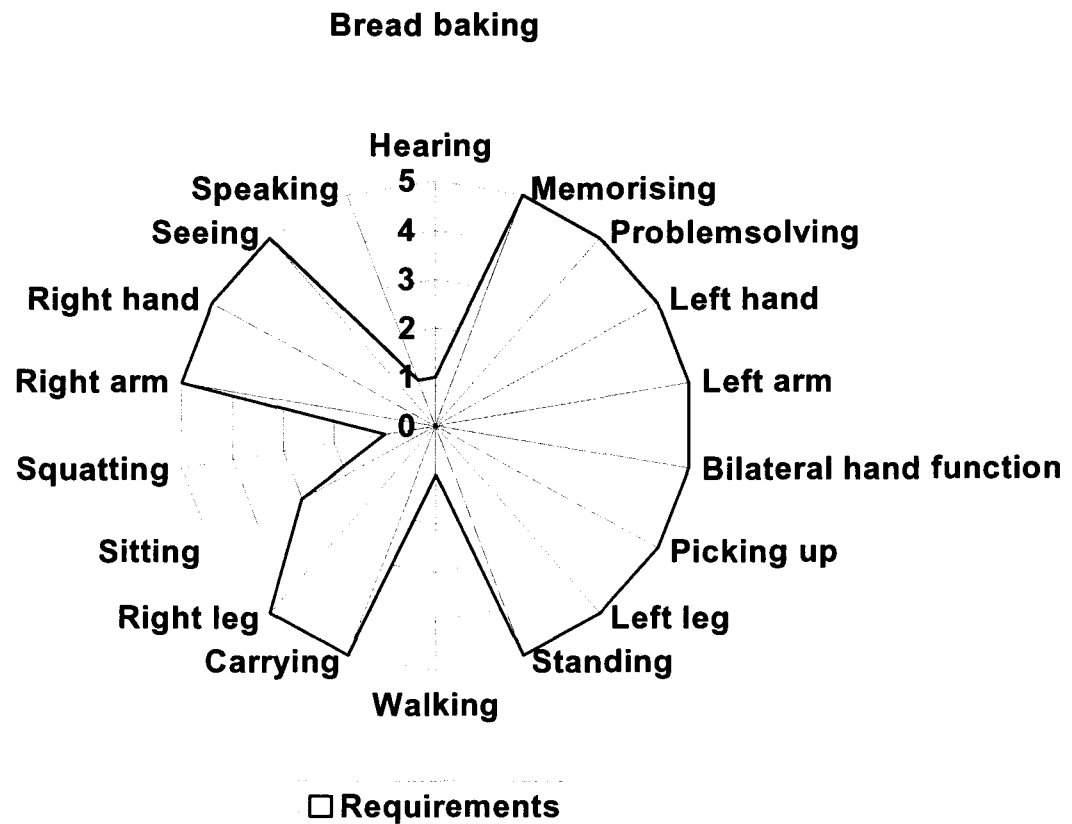


Figure 5.17 Profile of requirements for bread baking

Baking is an activity that requires mainly upper limb function. It is a bilateral hand activity that requires strength and endurance for the preparation of the dough. Mobility is needed in the mixing and the baking tasks. Speech is a requirement for the buying and selling process of the activity.

For successful and safe completion of the activity the baker needs good memory, judgement and problem solving skills.

5.2.2.2 Facilities

None of the projects mentioned by the committee in the first stage of the research study were in existence by the end of the study.

The fowl run used for a poultry project had collapsed in a heavy rainstorm and was no longer in existence. The sewing project had been run from the home of one of the committee members but she had moved away and the project was dormant. The plans for the baking project were progressing with the donation of a building.

The TDC had erected the facilities for the baking project at the school in the later stages of the study. The facility was built as an income-generating project for the whole area.

The site and the facility were examined to assess the accessibility for PWD to allow them to be fully integrated as prospective participants in the project.

Site

The building was erected within the school grounds, which are central to the Tsilitwa village. Accessibility was considered in terms of the following:

■ **Position:** - the position at the school is suitable because of its central location and the security that is provided by the school board. The building is the first building just inside the main gate (\pm 30 meters from the entrance).

■ **Roads:** - the major roads in the area are deeply rutted; they are passable by motor vehicle (preferably a light delivery vehicle (LDV) as the tracks have the width of such vehicles), on horseback or on foot; the smaller roads are uneven, often overgrown and in many places have deteriorated to footpaths; footpaths cross the hills from all direction to provide more direct routes for pedestrians.

■ **Transport:** - no formal or informal transport system exists in the area. There are pick-up points at which people gather and wait until some one passes and offers a ride. With the rare exception of a sedan, the passing vehicle is a light delivery vehicle (LDV) and people sit under a canopy on the back, amidst the goods being transported. PWD thus need to be able to reach the pick-up point and board the vehicle. Drivers do accommodate wheelchair users if they can fasten the wheelchair to the roof of the vehicle.

■ **Surface:** - the school is built on a hillside and the surface surrounding the buildings is roughly evened out with level paths along the classrooms.

■ **Toilets and water supply:** - the toilets are positioned at the edge of the school complex (± 250 meters from the new building) and access to them is by a narrow footpath; the only current water supply is a tap on the school grounds centrally positioned in a grassed area.

Building

■ **Entrance:** - There is a concrete strip (wide enough for a wheelchair) and one small step to the entrance of the building (± 20 cm); at the time the concrete strip started level with the ground.

■ **Doors:** - the entrance door is wide enough for all wheelchairs; some of the doors to office and storeroom spaces would only allow narrow adult wheelchairs to pass.

■ **Floor surface:** - the floor surface is a level concrete surface throughout.

■ **Lighting and ventilation:** - adequate windows allow for good daylight and ventilation; the building has been wired and there are electric fittings for use once the village has been connected to the national power supply network; the building is constructed from metal transport containers which will cause it to be hot in summer and cold in winter.

- **Size:** - the work area is spacious and can house a variety of equipment and people without becoming too cramped for wheelchair users to manoeuvre inside the building.

- **Work surfaces:** - no work surfaces had been acquired by the last visit and could therefore not be assessed.

5.2.2.3 Resources in terms of training and adaptations needed by PWD

The investigation into local facilities for vocational rehabilitation was carried out at a local, district and central level.

Clinic

- **Facility:** - the Tsilitwa Clinic provides primary health care for the three villages included in the study; it lies on a hill next to the road to Thombeni and is about 2 km from the main road that leads to Tsilitwa; the clinic is not accessible for PWD with severe mobility problems (location, transport, six steps at the entrance), the sisters attend to them at their homes.

- **Personnel:** - the clinic sister has no rehabilitation training, but is aware of the plight of the PWD in the area; no referrals for further rehabilitation and vocational training were made in the past; the purpose of the visits from the rehabilitation professionals was to inform the local personnel what services could be provided at a tertiary level (ie. Umtata Hospital) and to establish contact and a referral system.

District Hospital

- **Facility:** - Sulenkama, the district hospital, is about 30 km from Tsilitwa; no rehabilitation services are provided at the hospital; the matron passes on referrals for specific services from the clinics; the patients are transported to Umtata per ambulance if an appointment at the required services has been obtained; the hospital does not have an outreach programme to the clinic because of transport problems; transport to Sulenkama Hospital has to be arranged by the family of the PWD.

■ **Personnel:** - the matron in charge of this service was informed of the purpose of referral for vocational rehabilitation; she assured the researcher that referrals from the Tsilitwa Clinic would be forwarded if there was space in the ambulance.

Provincial Hospital

■ **Facility:** - Bedford Hospital in Umtata has well equipped occupational and physiotherapy departments; patients are discharged as soon as conditions stabilise and not in accordance with rehabilitation targets that would allow them optimal independent functioning; the discharge is often too early for the provision of disability grants, wheelchairs and other assistive devices; a speech and hearing therapy department is located at Umtata General hospital; co-ordination of rehabilitation services did not seem to be a priority.

■ **Personnel:** - the rehabilitation personnel of the various disciplines are well trained according to national standards, but expressed frustration with their internal referral systems and the lack of outreach programmes; this attitude appeared to cause them to focus on acute care rather than long-term goals; the purpose of the visits to Tsilitwa with the rehabilitation teams was to motivate them to extend their services to include vocational aspects and to establish contact with local clinic personnel and PWD of the area; the occupational therapy personnel assured the researcher that they would attend to needs in terms of assessment, job matching, additional rehabilitation and adaptations as long as it was within their means to do so; the referral system to the community and from the community to the provincial professionals was formalised.

National services

There are no funds available to refer PWD to tertiary institutions that offer specialised vocational rehabilitation services. If the family can afford the transport and accommodation near such services these institutions provide vocational rehabilitation services to clients from the provinces with which the hospitals have agreements.

The MODE (Medunsa Organisation for Disabled Entrepreneurs) was planning to extend their services into the Eastern Cape in the foreseeable future. This organisation provides:

- Empowerment opportunities by motivation PWD to discover their abilities and assist them to use them to gain access to the workplace,
- Vocational rehabilitation including pre-vocational skills, work performance skills and problem solving skills,
- Work placement, job creation and business placement in the formal as well as in the informal sector,
- Environment-enabling solutions to overcome physical and social obstacles in the work place.

The community was provided with a contact person and contact details for the purpose of training and assistance to establish individual enterprises²⁰⁰.

The above described results will be used to make job matches in the following chapter to further investigate the opportunities for PWD to be integrated into the development programme of the local community.

Chapter VI

Job match



Introduction

Job match for individual cases

Summary

6.1 Introduction

A job match for a PWD is a complex problem solving process. The level of functioning of the person is the most important factor to consider in the match. If the level of motivation and action is not addressed correctly, the person will not use his/her abilities and skills effectively. The level of motivation and action is thus also matched to the job requirements. If there is not a complete match the possibilities to compensate with supervision and structure are investigated to establish a match.

Secondly, the person's aspirations are considered to ensure job satisfaction, which is of the utmost importance to ensure that the worker will be able to maintain a reliable, consistent performance.

The person's abilities and skills are then matched to the job requirements. If there is not a complete match, the possibilities to compensate with other performance components or adapt the method, workplace structuring and equipment is investigated to ensure a complete match.

This chapter presents the possibilities to match the PWD identified in Tsilitwa to the work opportunities within the community development projects the TDC requested to be included in the study. This process is the fulfilment of Objective 3 of the study.

6.2 Job match

6.2.1 Objective 3: Assess the placement possibilities for integration of the PWD into the workplace developments

The individual job matches were made according to the process explained in the introduction. The data presented in the results chapter (**Chapter V**) were integrated to come to a conclusion.

The format for the individual job matches is as follows:

- Match between abilities and requirements of the work activity,
- A short discussion of all the factors considered for the recommended job match, including the person's aspirations, abilities and skills, and the level of motivation and action,
- Adaptations required for successful implementation of a placement,
- Training required to perform the tasks involved in the work activity.

6.2.2 Case I – Ms T

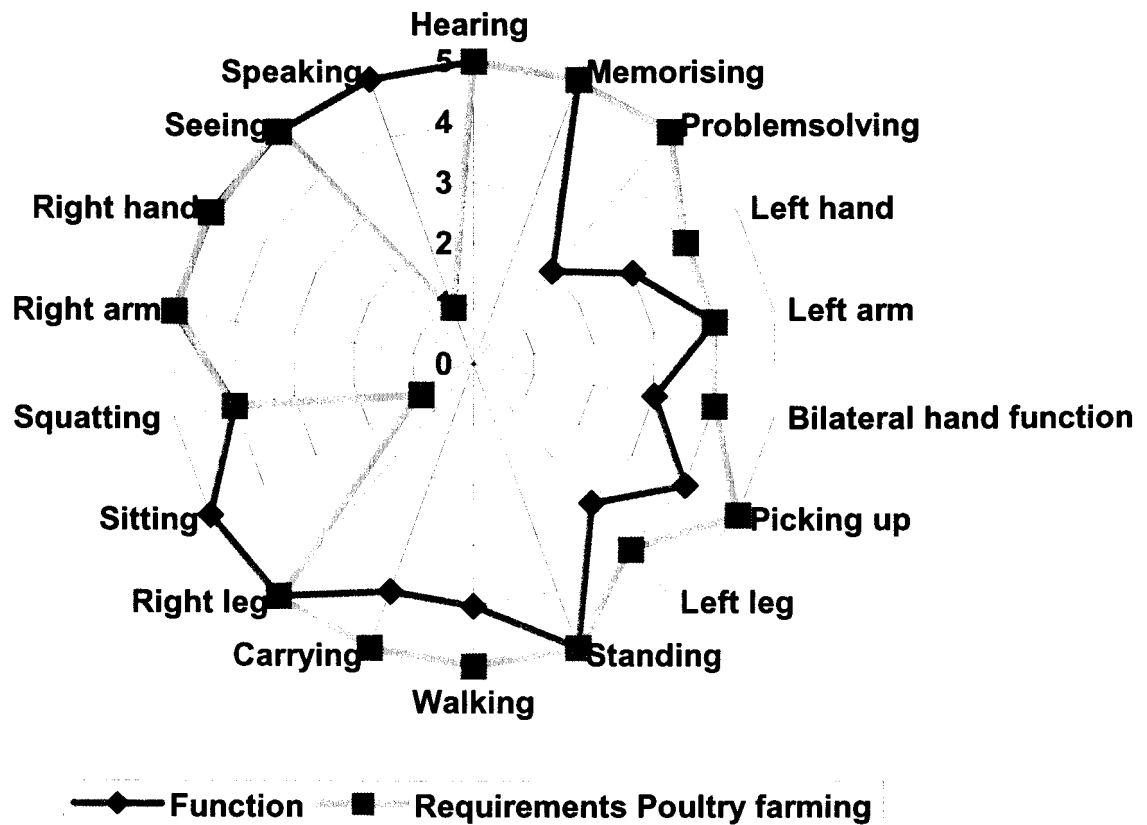


Figure 6.1 Job match: Poultry farming – Ms T

Discussion

■ Level of motivation and action: - Ms T functioned on a level of passive participation, which indicates that she could participate in a work situation but not independently.

■ Aspiration: - She aspired to be involved in teaching, which would make poultry farming a less suitable project for her. The suggestion was, however, not put to her and she might have an interest in animals that would make involvement in poultry farming meaningful for her. There were no opportunities to include her formally in the teaching system.

■ **Abilities and skills:** - Although the activity does not require a high level of bilateral hand function her abilities scored lower on five of the aspects, which indicates that a limited number of tasks could be performed independently without adapting the activity to a large extent. Her ability to solve problems was considerably lower than required, which also indicates the need for a major adaptation. No chickens were observed at her home at the time of the assessment and she did not report being involved in the care of chickens. No information on skills in this regard is thus available.

Adaptations

■ **Abilities:** - Her reduced speed of walking and picking up would possibly affect the rounding up of the chickens. The reduced bilateral hand function could affect the handling of the chicks and eggs. The reduced ability to solve problems would mean that she could not be left to make decisions on the health status of the chickens or sales aspects. As an assistant she would, however, be able to perform tasks at a reduced speed, as the speed of actions and her abnormal movement patterns would not affect the growth of the chickens or the production of eggs.

■ **Level of motivation and action:** - Because of the passive nature of her actions she would require supervision to ensure that tasks are performed at the right time and no important aspects are left undone.

Training

Ms T has observed the care of poultry around her as one of the activities in many of the households in the village. None of the tasks require the learning of technical or highly specialised skills. In-service training would be sufficient for an assistant's position in a poultry-farming project.

Conclusion

Ms T could be involved in poultry farming as an assistant under supervision if she showed sufficient interest in the project.

6.2.3 Case II – Ms M

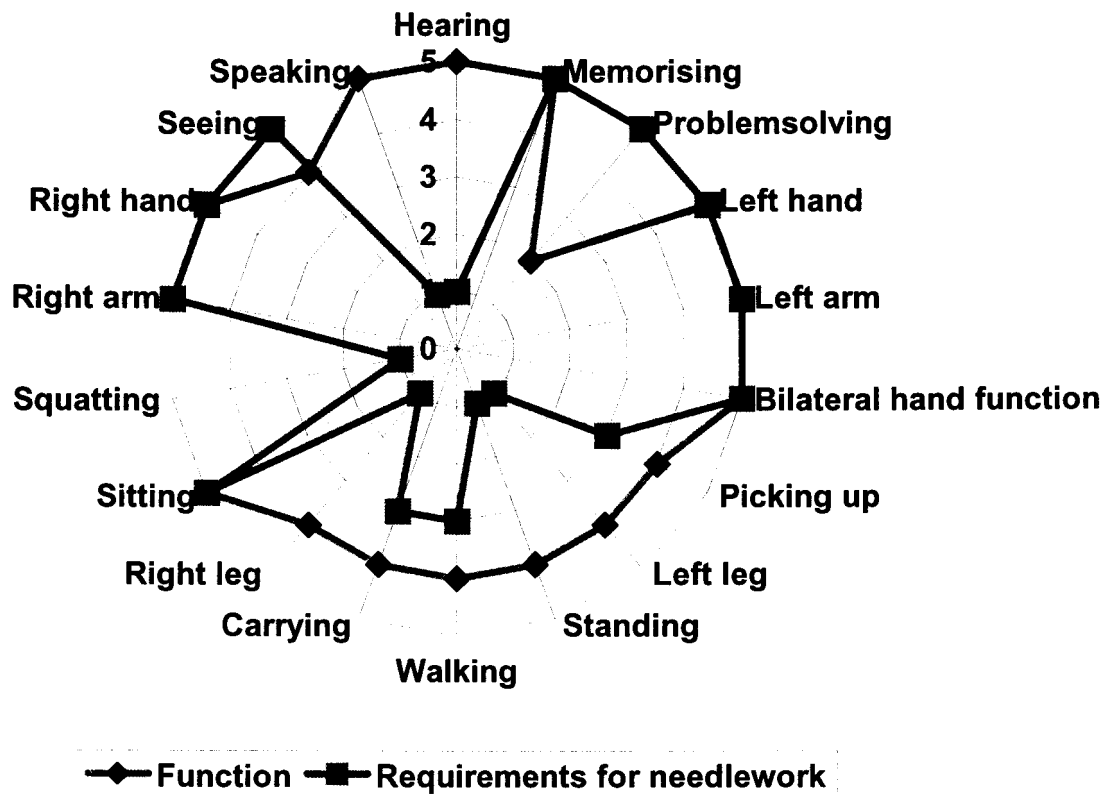


Figure 6.2 Job match: Needlework – Ms M

Discussion

- Level of motivation and action: - Ms M functioned on a level of passive participation, which makes it necessary for her to join a project rather than performing the activity as a home industry.
- Aspiration: - Ms M reported that she would like to do needlework.
- Abilities and skills: - Her abilities match the requirements for needlework well. The only aspect on which she scored below the required level was problem solving. This is to be expected on her level of motivation and action. She reported having skills in sewing, which would probably not be on a level for producing marketable goods. The activity is carried out in

sitting which is ideal for her because of the reported pain with extended walking and standing.

Adaptations

The fact that she is mobile makes it unnecessary to provide special structuring. She would require no adaptations to complete all the tasks involved in needlework independently and safely.

Training

Ms M would need further training in needlework. She could attend a course in needlework presented for community projects, but would require funding and accommodation as these courses are mainly presented in bigger towns and centres.

Conclusion

Being involved in a needlework project would suit Ms M's aspirations, abilities and skills. Training in the field would empower her and would probably lead to a higher level of functioning in terms of her level of motivation and action. She could be a productive member of such a project, delivering quality work at a normal speed.

6.2.4 Case III – Mr G

Discussion

Mr G was severely disabled. He functioned on a level of self-differentiation which meant that he was not ready to hold his own in a group, he did not have a task concept and could not conform to norms. Although he certainly could be involved in activities with an assistant, his abilities were too limited for employment. The speed and accuracy of his movements would result in an unacceptable production speed and he could not be a productive member of a work project. The fact that he had regular epileptic episodes complicated the matter further.

Adaptations

Because of the low level of motivation and action even the highest level of adaptation, that of having an assistant, would not enable Mr G to perform according to the required norms for a work environment.

Training

He was not ready to be exposed to formal training.

Conclusion

Mr G could not be involved in one of the projects. No job match could be made for him.

6.2.5 Case IV – Mr S

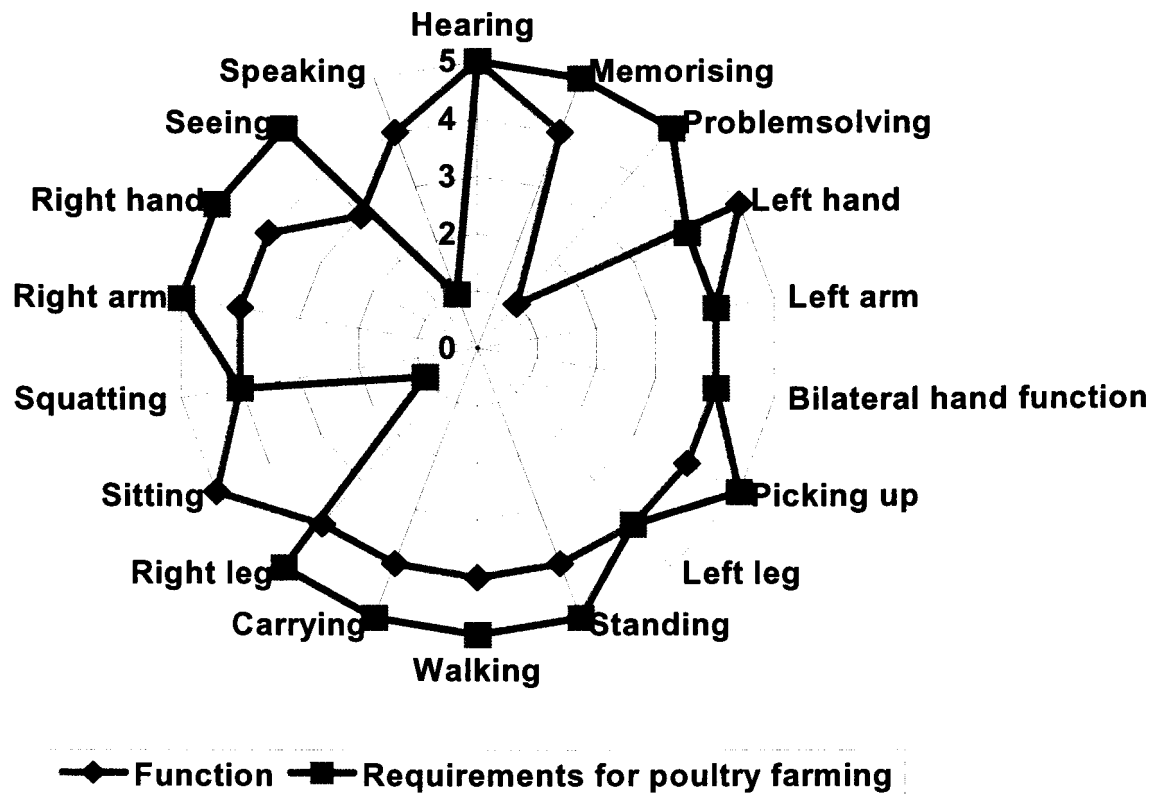


Figure 6.3 Job match: Poultry farming – Mr S

Discussion

■ Level of motivation and action: - Mr S was functioning on a level of passive participation. He participated in activities with the encouragement of his mother. The fact that he reported a wish to rest was an indication that the demands of some of the activities his mother involved him might have been too much for his level of functioning.

■ Aspirations: - He expressed the wish to rest. This suggests that he would participate in work activities only if encouraged by his mother.

■ Abilities and skills: - Mr S performed consistently with some abnormal movement patterns and reduced speed. Except for the rounding up of the chickens he would be able to perform all the tasks at a reduced speed.

The visual problems could be improved with glasses. His poor performance in the problem solving assessment would present problems in situations where he would have to use his judgement.

Adaptations

No adaptations would be needed for the physical aspects of the tasks. Mr S would, however, only be able to function under supervision because of his level of motivation and action, and the reduced speed of his physical performance.

Training

Mr S's reduced score for memory suggest that he would best learn through a repetitive routine. In-service training over an extended period of time would be required to ensure a good grasp of his duties.

Conclusion

The researcher's impression after the interview was that Mr S could be effectively involved in routine activities. Gardening, leatherwork and baking would all result in associated reactions because of the resisted movements in the tasks, which would further reduce the functionality of Mr S's movements.

The best match for Mr S would therefore be poultry farming. The variety of tasks in poultry farming might demand too much of him, even though he could physically perform the tasks. He could be involved as an assistant in a poultry-farming project, although he would best be accommodated in process work in a production line.

6.2.6 Case V – Mr B

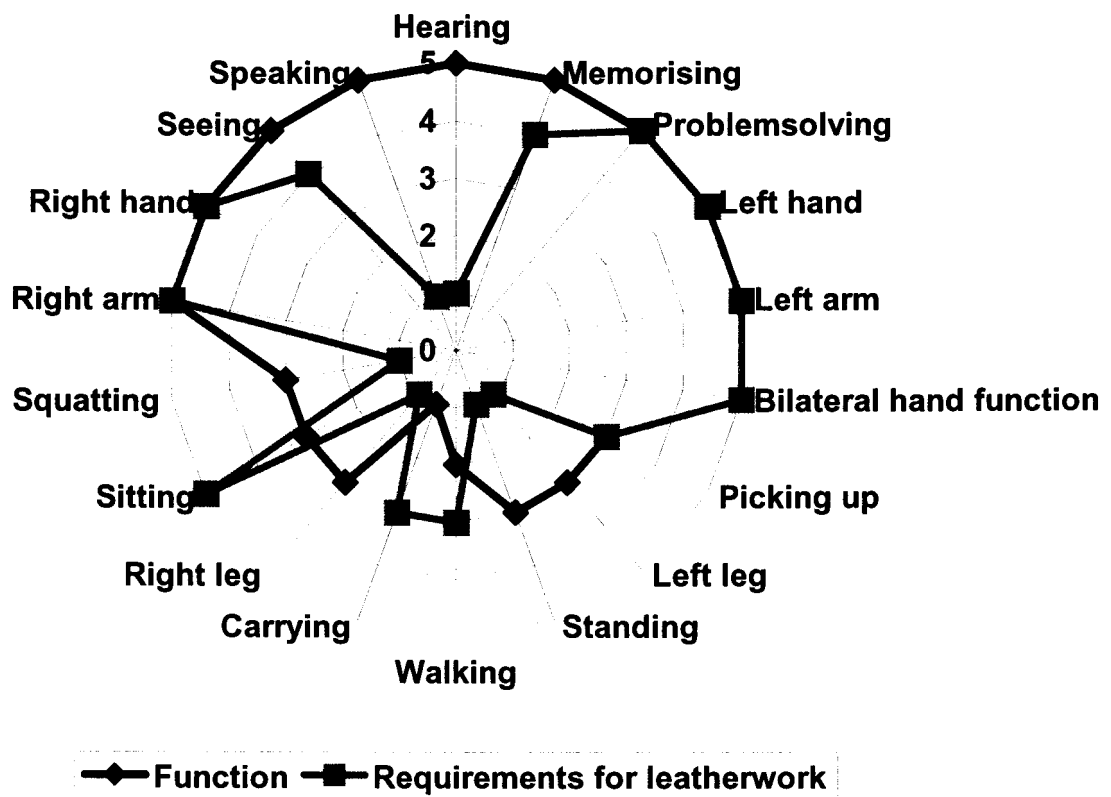


Figure 6.4 Job match: Leather work – Mr B

Discussion

- Level of motivation and action: - Mr B functioned on a level of active participation. He demonstrated initiative and the ability to initiate actions according to his own drive.

- Aspirations: - He expressed during several discussions the wish to build up a small shoe repair business. He started making his own tools and was actively working towards the fulfilment of his wish.

- Abilities and skills: - The only aspect in which he scored below the requirement for leatherwork was sitting. He was only able to perform dynamic balance in a small range of movement. His exposure to

leatherwork in occupational therapy provided knowledge of the tools needed and he proceeded to make himself some needles out of wire found in the vicinity of his house. On one visit he was busy repairing shoes with his new needle. The quality of work was below market related norms. He also showed good problem solving skills, not only during the assessment but in his tool making and attempts to repair a radio that was brought to him.

Adaptations

The only adaptation needed is the provision of a solid work surface at the correct height for his wheelchair, which will also provide external support for his balance problems.

Training

Mr B needs further training in shoe repairs, which he can obtain from the occupational therapy assistant at Bedford Hospital. A referral, transport and accommodation for the period would have to be arranged through the referral system.

Conclusion

Involvement in a leatherwork project would afford Mr B the opportunity to achieve his goals. He would not only be a productive member but his drive could contribute greatly to the success of such a venture.

6.2.7 Case VI – Mr M

Discussion

Level of motivation: - Mr M was functioning on a the level of contribution, both through his teaching and motor repair activities.

Aspirations: - His aspiration was to build up his own motor repair shop in the village. He was already doing repairs for which he had tools available. His physical problems should not interfere with the performance of the tasks involved in motor repair. He experienced problems with walking, especially over uneven terrain and for long distances.

Abilities and skills: - No judgement could be made on how skilled he was at his work and whether he could perform a variety of repairs without supervision. He was teaching some aspects of repairs at the local high school, which might suggest that he had the knowledge for basic repair work.

Adaptations

No adaptations are needed for motor repair work. A workshop near his home or transport to the workplace would, however, reduce the time he needs to reach his destination and the energy expenditure involved in getting there.

Training

Whether further training is needed to operate a workshop independently would have to be established in a thorough assessment of his mechanical and administrative skills.

Conclusion

Because of Mr M's aspirations, skills and current activities none of the projects investigated would make an ideal match. Mr M should be able to work in the open labour market. The area he lives in offers no formal work opportunities

for a man with his skills. He would be a good candidate for inclusion in a project that involves motor repairs.

6.2.8 Case VII – Mr J

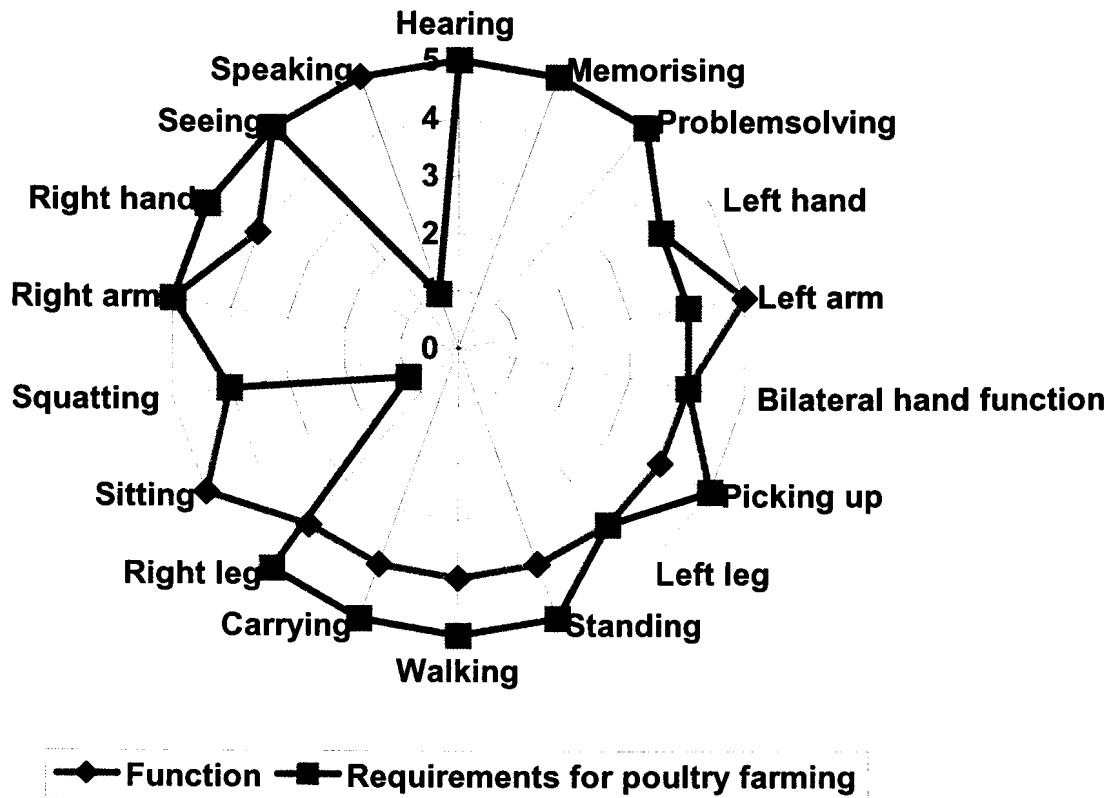


Figure 6.5 Job match: Poultry farming – Mr J

Discussion

- Level of motivation and action: - Mr J was functioning on a level of active participation, demonstrated in the way he took responsibility for the goats.
- Aspirations: - He expressed a strong wish to work and earn a living. He said that he did not know what he could do because of his balance problems.
- Abilities and skills: - Mr J demonstrated abnormal movement patterns and reduced speed in the performance of movements, which would affect his ability to round up the chickens. During the assessment he suddenly

got up and chased the goats he was taking care of out of the neighbour's vegetable garden. The speed he demonstrated in that action, which he performed with the help of his walking stick, would be adequate to perform similar tasks with chickens. The proprioceptive fall out might influence the handling of the chicks and eggs. His problem solving ability and good communication skills ensured that he could deal with decisions that would have to be made in the care and selling of the chickens.

Adaptations

In handling chicks and eggs Mr J would have to compensate with vision for the proprioceptive fall out. Because he uses external support for mobility he could use a cart to transport food etc around instead of carrying it.

Training

He appears to have the motivation and abilities for further education. Training in a community poultry farming course would be beneficial to ensure economic success of such a project.

Conclusion

Because of Mr J's current involvement with animal care and his apparent pride in the work he is doing for his neighbour, poultry farming was considered as a match. Mr J could contribute toward the success of a community poultry farming project especially if it was more structured and the chickens housed in chicken runs instead of roaming freely.

6.2.9 Case VIII – Ms S

Discussion

Ms S's level of motivation and action was that of passive participation. She did not report a wish to work and would thus not be motivated to become involved. Her widespread pain and limited range of motion allow only for light work with encouragement and assistance. Kneading dough, the static positioning of sewing and the high physical demands of gardening are contraindicative for her condition.

Adaptations

Adaptations for joint conservation and splinting for more functional positions or to assist in the case of subluxations would be of assistance if the condition had not been as debilitating as it had become. These should be of help in her activities of daily living but would not be enough for the demands of more strenuous work.

Training

None

Conclusion

No job match could be made with the projects investigated. Ms S is not a candidate for a work project.

6.2.10 Case IX – Mr F

Discussion

Mr F was functioning on a level of self-presentation. He had no aspirations and could not express any needs. He had an abnormal posture, and balance problems aggravated in walking by clonus. He used abnormal movement patterns, which affected the accuracy and speed of his performance. He had an expressive aphasia. His behaviour was inappropriate but he did offer a workable solution to the problem posed during the evaluation. All these factors would affect his ability to contribute towards the success of a work project.

Adaptations

The injury had occurred eight years earlier and he could benefit by adaptations for activities of daily living (ADL) but they would not be enough to compensate for the lack of function in a work situation.

Training

None

Conclusion

No suitable job match could be made for Mr F with the projects investigated. Mr F could not be included in an economically viable venture.

6.2.11 Case X – Mr S

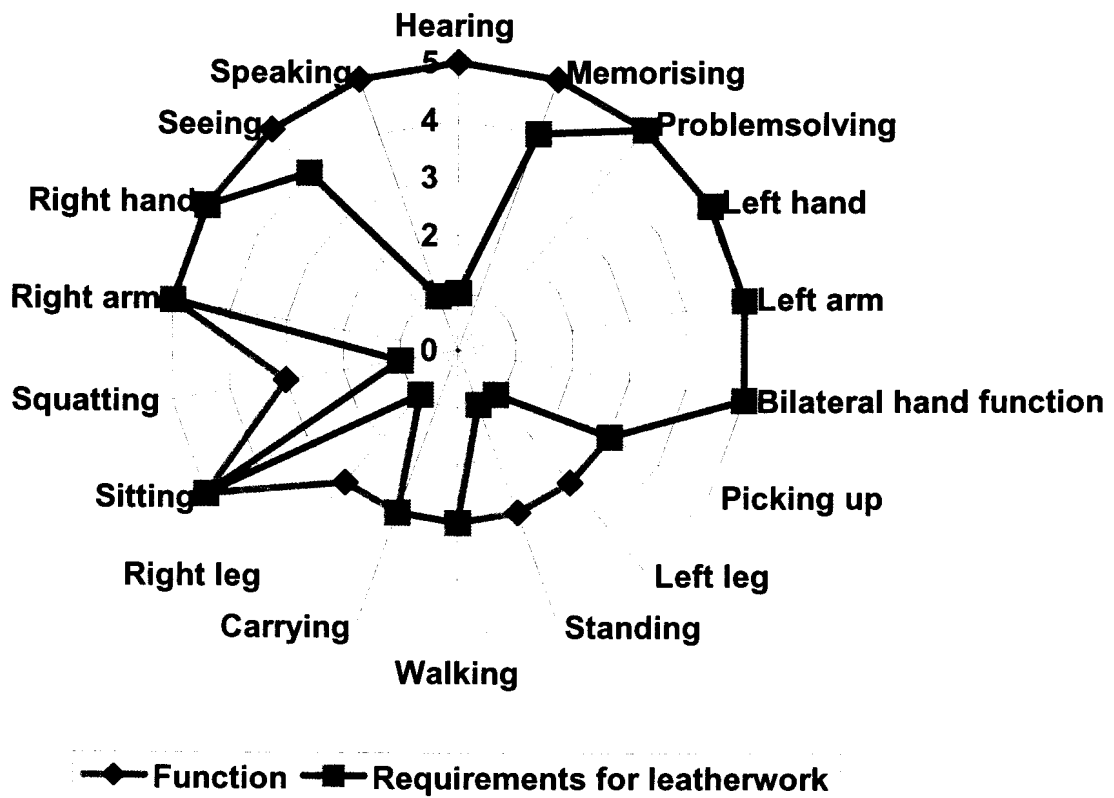


Figure 6.6 Job match: Leatherwork – Mr S

Discussion

■ Level of motivation and action: - Mr S functioned on a level of imitative participation, which means that he would be able to work according to the norms set in training and by examples provided.

■ Aspirations: - He reported wanting to be gainfully employed but did not have any specific preference although he thought he might be able to remember how to do electrical wiring. The villages are not yet connected to an electricity network, his physical abilities would prevent him from doing the installations when it should happen and the type of wiring he did

was for alarms only, not general installations. Electric installations would thus not be a suitable employ for him.

■ Abilities and skills: - His physical abilities match the requirements of the tasks involved in leatherwork. He is mobile enough to position himself at a workstation. The lower score for memory might need compensating for.

Adaptations

The memory deficit could be compensated for by routine in the manufacture of a small range of articles. He could use a kart to move objects from one area to another to compensate for the problem with carrying, as he is not wheelchair bound and won't use his chair to transport things.

Training

Mr S would need training in leatherwork, which can be provided by the occupational therapy assistant at Bedford Hospital. The training might have to be adapted if it is affected by his memory deficit.

Conclusion

The best match for Mr S is that of leatherwork. It is an acceptable work activity for a man of his culture and can be performed with his abilities. The training and the worker status he would achieve through involvement in a project would positively affect his functioning and might assist him to break out of the passive role he had assumed.

6.2.12 Case XI – Ms L

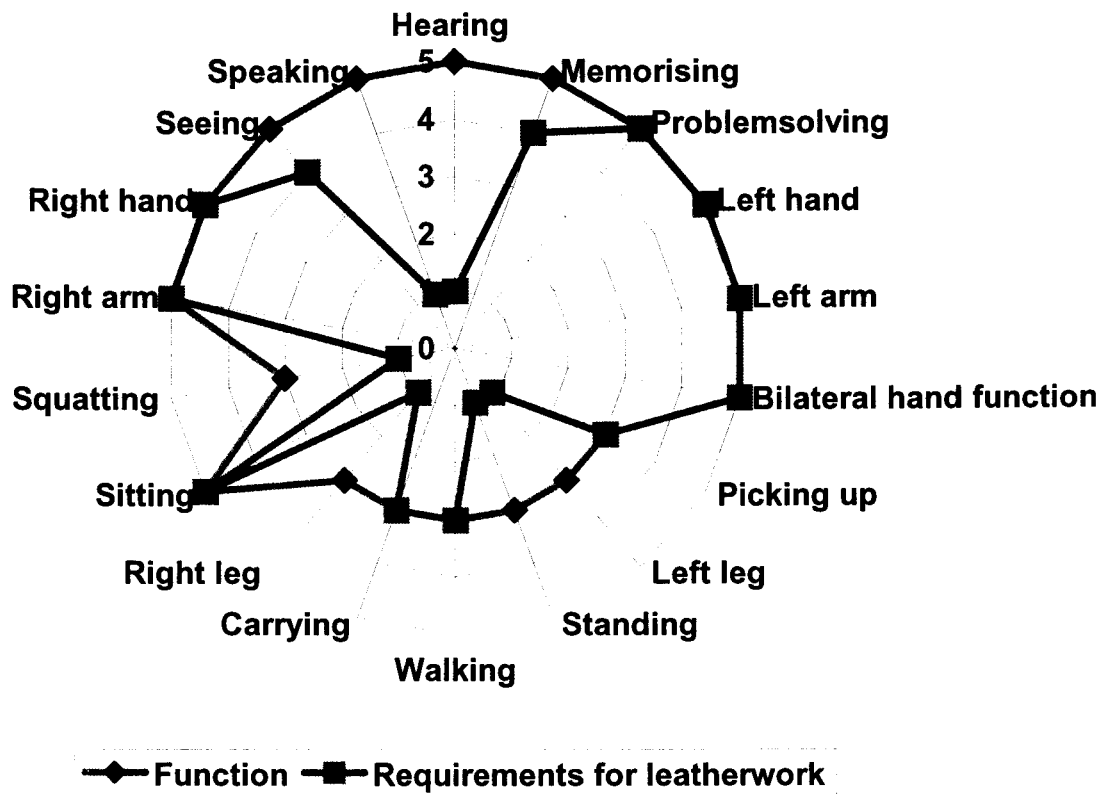


Figure 6.7 Job match: Needlework – Ms L

Discussion

■ Level of motivation and action: - Ms L functioned on a level of active participation observed in her interaction with the neighbours and showed some initiative and insight in the problem solving assessment.

■ Aspirations: - She had no aspirations. From observations of the family interactions it appeared that it was never expected of her to move beyond the home. She played the role of assisting her mother without assuming any responsibility.

■ **Abilities and skills:** - She was adept at performing activities one handed and had found her own methods of compensating because she never had full use of her right hand. Her gait is functional and she moves around freely over the uneven terrain. No needlework skills were recorded but she had been involved in a variety of household tasks.

Adaptations

Beadwork would probably be the most suitable needlework activity for her if she were shown how to make a knot one-handed. Cutting can be done one-handed if the material is weighted down. Pinning, hand sewing and electric machine sewing could be performed one-handed by a person adept at handling materials one-handed.

Training

Ms L would need to attend a course in sewing as offered for community projects. She could be taught beadwork by someone in the village who practises the traditional activity.

Conclusion

Although needlework is a bilateral hand activity there are ways of compensating for the lack of Ms L's right hand functioning and needlework can therefore be a suitable job match for her. Ms L could be a productive member of a needlework project if the family is convinced of the benefits for her.

6.2.13 Case XII – Mr J

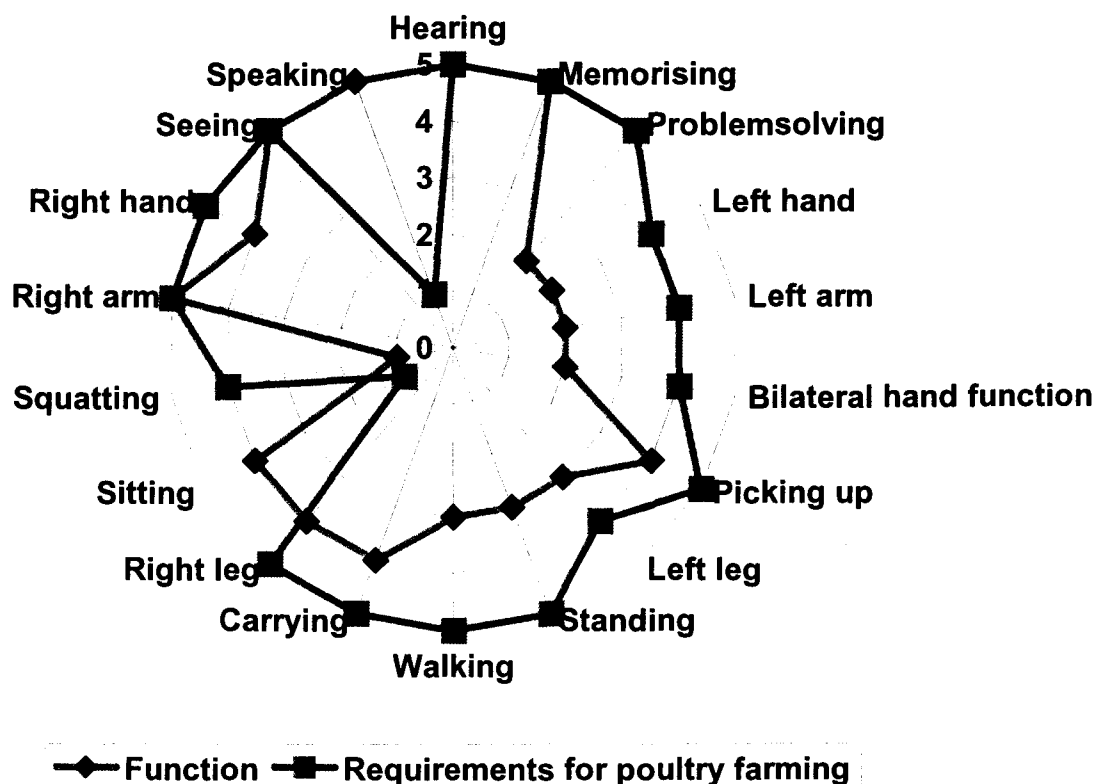


Figure 6.8 Job match: Poultry farming – Mr J

Discussion

■ Level of motivation and action: - Mr J was assessed to be functioning on a level of passive participation. This might have been influenced by the situation, because it does not seem to be consistent with his successful adaptation to his situation.

■ Aspirations: - He reported wanting to farm with chickens and that he needed a fowl run. He appeared to have given it some thought but had not acted on any of it.

■ **Abilities and skills:** - Mr J's abilities fall short on 12 of the 18 aspects assessed. The low score of problem solving was an indication of a lack of insight and judgement. He had adapted to one-handed functioning and made use of a horse for transport. He seemed to have established through trial and error ways and means to live his life as close as possible to the way he always had.

Adaptations

Mr J would only be able to farm with chickens with the help of an assistant because of the many aspects that scored below the required level and those aspects that the assessment identified as needing adaptation.

Training

None

Conclusion

Mr J might be able to farm with chickens with the help of his extended family as part of the family's activities of subsistence farming or even as a home industry. He would, however, not be employable in an economic venture of a larger scale in the community.

6.3 Summary

6.3.1 Summary of job matches

As in any community, disability of various levels was found. Most communities have severely disabled in their midst who can not be integrated into the workplace even with assistance, as well as PWD who can compete in the open labour market with or without reasonable accommodation by industry. The remaining PWD would need professional intervention to determine their ability to perform tasks, compensatory techniques, appropriate workplace adaptations and level of assistance where needed. This study investigated opportunities for PWD to be integrated in rural development programmes. The result of the data is thus presented in terms of possible inclusion in community projects in Tsilitwa.

Number of positive matches

Fifty eight percent of the PWD included in the study could be integrated in community projects planned by the community.

Sixteen percent of these however would require supervision and would only be able to be placed in the role of an assistant. The main contributing factor to this level of employment was their level of motivation and action.

One person could not be accommodated in the projects investigated, because of his particular aspirations and skills.

Type of work project

The following table summarises the spread of projects into which the PWD could be integrated:

Table 6.1 Summary of job matches per type of work project

Work project	N=12
Leatherwork	2
Needlework	2
Gardening	0
Poultry farming	3
Bread baking	0
Other	1
None	4

Gender

Needlework is an activity that is more acceptable for women in the local culture and therefore matches with this type of work were only made for women.

Leatherwork is an acceptable activity for men of the culture and especially the shoe repair work was thus suitable for matches for the men.

Gardening is traditionally carried out by the women of the culture but is suitably related to farming to make it acceptable for men to participate in this activity and could thus be recommended for both genders.

Women also carried out the baking in the projects visited. Because it is common knowledge that in the formal sector men are involved in the baking industry and because of the scarcity of work opportunities in the villages, it might be a suitable placement possibility for men with the right abilities.

Exclusions

The reasons for not being able to accommodate 33% (3 persons) of the PWD in the study were the severity and complexity of their disability.

Case I had multiple conditions and was severely disabled. Case VIII's chronic condition caused widespread pain and limitations. Case IX was complicated by cognitive problems in addition to severe physical disability. Case XII was severely physically disabled.

In all cases the level of motivation and action was below a level of participation because of these disabilities, except in Case XII where the severe disability prevented him to compete with able-bodied applicants for participation.

6.3.2 Summary of adaptations

Two of the PWD for whom successful job matches were made would need no adaptations. Only minor physical adaptations for work would be required, except for accessibility issues like transport and building access. Adaptations for cognitive aspects and a lower level of functioning were needed by three of the PWD.

The following table summarises the need for adaptations for successful and safe execution of the work activities.

Table 6.2 Summary of adaptations needed

Adaptation needed	N=8
Physical adaptation	2
Supervision	3
Both	0
None	2

6.3.3 Summary of training

Three types of training were identified for successful participation in the work projects, namely:

- In-service training – for which a knowledgeable person should be available who is able to convey information and develop skills in employees.
- Community development courses – which are offered by various NGOs nationwide; the community would need information about details.
- Vocational rehabilitation – as part of vocational rehabilitation, occupational therapists offer skills and adapted skills training; the referral system would need to operate effectively for PWD requiring further rehabilitation.

The following table summarises the need for further training to ensure competitiveness in the workplace.

Table 6.3 Summary of training needs

Training	N=8
In-service training	2
Community development courses	3
Vocational rehabilitation	2

Formal tertiary education is not necessary for participation in the projects investigated. If one of the PWD were to assume leadership of a project business training would be advisable.

The results presented in the last two chapters were derived from the data collected during the two phases of the disability survey and the analyses of the requested work projects.

The data collection was kept simple with the intent of developing a model for data collection that might be carried out by community-based rehabilitation workers in the future. The results reflect this level of information.

Chapter VII

Discussion of results and methodology



"It is neither wealth nor splendour but tranquillity and occupation, which give happiness." *Thomas Jefferson*

Results

- The disabled people of the Tsilitwa area
- Work opportunities for the disabled people in the Tsilitwa area

Method

- The participatory model
- The method of assessment
- The method of analyses

7.1 Introduction

The lack of statistics on the prevalence and needs PWD in South African rural areas necessitated an in depth investigation into the type and severity of disability as well as the skills, needs and aspirations of PWD before job opportunities for PWD in rural development programmes could be determined. The results gave insight into circumstances under which the PWD live and emphasised the many barriers they face to achieve full integration into their communities.

In this chapter the results described in the previous chapters are interpreted and the factors which influenced them discussed. Where appropriate the discussion integrates the quantitative and the qualitative results.

The discussion of the results of Objective 1 are discussed in subsection 7.2.1 and the results of Objectives 2 and 3 in subsection 7.2.2.

This chapter also includes a discussion of the research methodology that was followed.

7.2 Discussion of results

7.2.1 The disabled people of the Tsilitwa area

7.2.1.1 Community profile of adult disablement in Tsilitwa

The focus of the disability survey was on physical disability found in the age group 16-40 years of age.

The national disability survey found the highest prevalence of disability in the country among the African population in the Eastern Cape. It was reported that this province had a 3.1% higher average prevalence than the rest of the country. The national survey found a disability prevalence of up to 7.9% higher in the age group investigated compared to all age groups of the total population²⁰¹.

Based on these statistics, it appears that the prevalence in the Tsilitwa area was lower than the Eastern Cape average and the expected rate for the age group. This correlates with the findings of the national survey, which indicated that disability prevalence is lower in rural areas than in urban areas.

The final figure of identified PWD was affected by the following factors:

- Perception of disability: – The list of PWD identified in Phase I included persons with recent injuries, which would not have a long-term effect on their activity performance, as well as persons who functioned according to

norm in spite of an impairment, e.g. the loss of a finger or a stature slightly shorter than the norm.

■ **Financial need:** - Because of the lack of employment opportunities in the rural areas many families are solely dependent on subsistence farming for survival. The possibility of obtaining a disability grant, if someone was identified as a PWD, seemed to have influenced some of the reports of disability in Phase I of the survey. Over reporting like this is a common occurrence especially in poor communities and regularly described in the literature²⁰²

■ **Lack of services:** - Although the heads of household were asked to supply information on persons living in the villages at the time, 20% of the PWD identified in this phase were living in urban centres because of a lack of local services (see **Table 5.2**). The reasons for reporting these persons were linked to financial need of the family left behind or a hope that if services and opportunities improved their family members could return and be included.

The PWD in the area included a number of retrenchees and persons who had worked outside the community before their disablement and were the breadwinners of their families. This is seen as the explanation for the percentage ratio of 66.6% (8 men) male to 33.3% (4 women) female PWD in spite of a generally reversed pattern in rural populations.

Of the five who were receiving disability grants three had been awarded these as children. The other two had received rehabilitation in urban centres where the procedures of assessment for grants had been followed through. The lack of financial aid for PWD in the area is caused by a breakdown of the system put in place to assist PWD who have special needs and are unable to earn a living. The PWD not eligible for a grant and who should be able to find employment are prevented from doing so by the lack of employment possibilities for PWD in rural areas. As a result of the absence of grants and the lack of work opportunities the PWD and their families are the poorest of

the poor in these areas and dependent on the generosity of family and community.

Due to their condition, the ability of all the PWD to move around in the village was restricted and they experienced even greater difficulties in moving beyond the area. The reasons for this were:

- The most common cause of permanent disablement (eight PWD) was found to be of a neurological order with resultant abnormal movements and instability.
- Half of the PWD had upper and lower limb involvement indicating a high level of disablement.
- The lower limb dysfunction of ten of the PWD affected mobility.

The physical barriers of the environment compounded the problems and resulted in isolation from the community. The physical barriers present in the area were:

- Hilly countryside,
- Uneven surfaces,
- Narrow pathways and poor roads,
- Distances,
- Lack of transport,
- Inaccessible buildings,
- Lack of assistive devices.

These barriers prevented the PWD from moving around freely and on their own in the community. Only four of the PWD in the study were able to move around independently in the villages. The rest were dependent on their families or even the community, with its limited transport resources, for assistance.

7.2.1.2 Aspirations and needs of the disabled people in Tsilitwa

Aspirations

Fifty percent of the PWD reported aspirations regarding a return to work or to gain the status of worker. This emphasises their need to improve their grave financial position and is linked to an associated need to be recognised and accepted as members of their community. Through involvement in a workplace they would achieve a place in society outside their family and be respected for their skills and contributions instead of being a burden on the family and community. This need for acceptance is highlighted by the fact that two of the respondents also reported a wish to be afforded a place in their community.

The remaining six reported no aspirations or “rest”. This exceptionally high percentage of aimlessness is affected by the following factors:

- Culture – The attitude of the Tsilitwa community toward PWD appeared positive (full discussion follows in the next sub-section) yet it seemed that in practice due to underlying traditional beliefs PWD were expected to accept their situation. The community was satisfied to leave them in the care of family members and special care organisations. The PWD seemed to feel powerless to change this situation and could not foresee a different future for themselves.

- Depression and low self-esteem – The PWD experienced additional stressors to those already present in current rural situations. The isolation within their homes because of the physical and social barriers, the often-incomplete rehabilitation and their financial situation on top of their disability, further induced depression and low self-esteem. Depression and a lowered self-esteem are characterised by feelings of helplessness and pessimism and this leads inter alia to a loss of ambition²⁰³.

- Level of motivation – Eighty percent of the respondents who reported no aspirations were functioning at low levels of motivation (assessed according to the Vona du Toit Theory of Motivation and Action). The above

psychological factors as well as the person's personal characteristics and the disability itself contribute to the level of functioning. This leads to the deduction that 20% of the PWD had aspirations, but did not expect their situation to change sufficiently for them to be realised.

■ Lack of information – The PWD, their families and the community did not have knowledge of services that could enhance the quality of life of the PWD or of solutions they could find within their community to improve the situation. This lack of information forced them to accept the status quo unquestioningly and affected the PWD's aspirations.

The initiative to improve the situation for the PWD came from the TDC. During discussion with the TDC and the interviews with PWD and their families more concern about the situation was mentioned by the community leadership than by those directly involved. The impact of disablement and the physical and social barriers that prevent rural PWD from full participation in community life appear to leave them apathetic and powerless to strive for a better future.

Needs

Although 11 of the PWD could be more functional with appropriate assistive devices they did not possess, only four felt they had a need for such. Increased functionality would accordingly improve their employability.

The three PWD who reported work related needs indicated some insight into how they could realise their aspirations to work again.

Only four of the PWD reported more than one need. Taking into consideration the plight of PWD in their area these short lists, in one instance none at all, support the deduction that they feel hopeless.

Their needs would have been affected by:

■ Aspirations – The general low level of motivation and the resultant lack of aspiration would directly affect the needs perceived by the PWD.

■ Lack of knowledge – Needs are defined as requirements in order to solve problems. A need can therefore only be expressed if one is aware of a solution. Most of the PWD had inadequate rehabilitation, in which they were not informed about appropriate solutions to their problems. None received vocational rehabilitation. Their knowledge of work opportunities was thus non-existent. Because of their general lack of knowledge about services available to them they were incapable of expressing and listing the needs that would improve their quality of life.

The needs identified by the researcher correspond to those found in other developing countries²⁰⁴.

The most compelling being the need to:

- Improve the everyday life of the PWD in terms of basic necessities, including medical care,
- Create an awareness of their needs and rights in the community,
- Alleviate poverty among the PWD through employment opportunities and social services.

The inability of PWD to express their needs and aspirations presents a dilemma that is experienced globally⁴⁹. It emphasises the passive roles PWD play in their families and communities. They are often managed by authorities who decide for and on behalf of the PWD and their communities as to what their needs are and what services can be developed for them. This does not take into account the rights of the people involved to decide on their own priorities. The best way to address this dilemma is by providing information on services available and the rights of PWD, and by raising the awareness of the situation of the PWD within a community. Informed decisions by the community, inclusive of the PWD, will ensure that their specific needs can be met and appropriate services provided.^{49,205}

7.2.1.3 Educational and skills background

Both schooling and previously learned skills are important for effective participation in a work situation and as a basis for the acquisition of new skills. The PWD interviewed lacked both.

Education

The extremely low level of education, only three having attended some high school and one having received some further education, contributed to the PWD's inability to influence and control their future. Most showed poor problem solving skills and none had any knowledge of how to use local or national systems to their advantage. Only one PWD could converse in English, which might be a problem if further training is considered.

Skills

One of the PWD had some formal skills training from which he could no longer benefit. Another one had some training post-injury in skills that would be appropriate for income generation under present circumstances. Nine reported some traditional skills, which may be useful as basic knowledge in the projects.

The low levels of education and skills are not unique to the PWD in the local population. To ensure that income-generating projects are sustainable and economically viable the workers involved have to deliver quality goods or services consistently. Not every member has to be involved in the management of the project, for which business skills are essential. They would, however, all need access to all training that is planned if they are to have equal opportunity to compete for a work-place. Training for all community members would have to take their mother tongue into consideration for effective communication.

7.2.1.4 The attitude to disablement in the Tsilitwa area

The participants took the discussions, which took place in small groups during the attitude survey, seriously. Everybody was involved in a lively debate and they made sure that the scribe recorded their opinions accurately.

The attitudes expressed reflected an awareness of the human rights of the PWD mixed with more traditional views on ways of dealing with disability. The awareness of disability issues could have been affected by talks the researcher was asked to give on the purpose of the study on various occasions. The purpose of the attitude survey was to establish whether the community would be willing to accept PWD as co-workers in their development projects. The talks were meant to prepare the community for this and it was considered appropriate to measure the attitude at the end of the study, as the next phase in the process would be the implementation of integration into the workplace.

The results from the semi-structured interviews are arguably limited because of the small number of participants on the day, fact that all opinions were formulated by the facilitators and translated for interpretation.

However, the recorded responses gave a good insight into the community's attitude at the time and could be used during further discussions with the TDC regarding this step.

Examples of the attitudes recorded on the day illustrate the mixed feelings that existed in the community at several levels.

■ In terms of their place in the family:

Many comments demonstrate that the community felt the family and the community should accept the PWD, as illustrated by "Disabled people should be accepted in the family and in the community so that they can feel that they belong somewhere" or "Mother should remain mother". Comments like "They should not be isolated, locked in their houses" and "His/her family must not feel shy about him/her" described an awareness

of such practices and indicate a open attitude towards the PWD in their midst.

Traditional beliefs, that the PWD should accept her/his disability were reflected by comments like, “They should not have self-pity and should involve themselves in minor duties so that they don’t relapse” and “They must take part in the domestic work, e.g. making tea for their parents.”

The comment “He/she must not be isolated from other people. Their need shelter” shows some contradiction. It demonstrates that although the PWD’s rights have been noted, the community still feels that they should have separate facilities.

■ In terms of community involvement:

The contradiction found in the comments on the PWD in the family is continued in the comments on their position in the community in “Need love, respect and protection” and “They must be protected against taking harmful substances e.g. alcohol successively”. These comments contain elements of control by the community rather than by the PWD about their lives.

The willingness of the community to move toward integration by PWD into full community participation was illustrated by expressions like “They must attend community meetings and their views must not be looked down on”, “She/he must be elected in the committee” and “Disabled people can use their skills to improve the economy of our country. They must be organised and thought skills that they use.”

The recordings of the discussion also revealed a need for assistance to achieve such integration, through comments such as “If they could be build a school for their special education so that they come back with their skills to the community” and “If they can get assistance or training to start small business for themselves. They can also be included in projects where they will be able to fund raise”.

Social development theorists, in studying the transition from traditional to modern societies emphasise the values and norms that operate in these two types of society.²⁰⁶

It is argued that the transition from limited economic relationships of traditional society to the innovative, complex economic associations of modernity depends on prior change in the values, attitudes and norms of the population.

During the survey it became clear that the community under investigation is in a transitional phase. The vision of empowerment and upliftment for all its inhabitants – PWD included – is a sign of the leaders' empathy. Empathy is seen by social scientists as an indicator for the intervening stages that take place in the development from a traditional to a modern society.

Observations made during the survey that indicate the transitional stage were:

- In terms of the *value* of the person to the family and the community the following attitudes were recorded - the PWD are loved, deserve respect and should participate in family and community activities according to their social position.
- In terms of the *function* of the person in the family and the community the following attitudes were recorded - they participate in household duties according to abilities and should have opportunities in the community in terms of work and social participation.
- In terms of the *burden* of the person to the family and the community the following attitudes were recorded - they need support, shelter, special facilities and continued treatment if necessary.

The phrasing of the comments, recorded in the community attitude survey, e.g. should, deserve etc. indicate an awareness of modern norms and not necessarily an implementation of these norms. The fact that all groups indicated, to some degree, an attitude that PWD should be taken care of and the community decide for them, once again points out that norms have not consistently changed.

The community thus seems to be aware of the rights of the PWD in their midst but in practice still feels that they should control the extent to which they include the PWDs. These attitudes do not reflect intolerance to the same degree as those described in the national survey on disability where it was reported that PWD are subjected to intolerance and prejudice⁴⁴, but can rather be seen as evidence that change is taking place in South African rural communities.

An incident, which occurred at the meeting, further illustrates the conflicting attitudes. Mr B (Case V) was not at the meeting as had been arranged by the researcher. TDC members informed her that it would be better if he did not attend. His presence would remind the community that one of its members, as yet unpunished, had caused the injury that disabled him and his presence at the meeting would upset some participants. It thus appeared that some PWD would be integrated more readily than others.

During the final discussion with Mrs Madikane this attitude was noted again. Mrs Madikane mentioned that the committee would favour home industries as least disruptive to the community whilst still assisting the PWD. In follow-up telephonic conversations it transpired that the committee had indeed followed this route.

Global experience revealed the importance of providing appropriate information and instilling a feeling of optimism through the sharing of successes at public meetings and celebrations.⁴⁹ The empowerment of PWD in the community will also create awareness of their abilities and the contributions they can make, thereby advancing the necessary attitude change.^{172,204}

7.2.2 Rehabilitation facilities

Rehabilitation in the region can only be offered to a few PWD as a result of limited facilities and incomplete professional teams. Only one of the PWD in the area had received occupational therapy during his stay in the Bedford Hospital in Umtata.

Because of short hospital stays the focus is usually on performance components. The occupational therapists often opt for a rehabilitation approach that attempts to improve occupational performance through adapted methods of activities of daily living. Except for a limited number of wheelchairs no assistive devices were observed in the hospitals or in use by the PWD of the community. Most of the treatment is concentrated on the personal care context with limited attention to the work and leisure contexts.

This fragmented approach and the often incomplete rehabilitation process have the effect that the PWD remain uninformed about their own potential, their rights and services available. The resulting lower than necessary level of functioning contributes to the low level of motivation observed during the study.

Despite the newly instated community service year for rehabilitation professionals, which should improve services in historically underserved and disadvantaged areas,²⁰⁷ the Speciality Focus Group for the Modernisation of Tertiary Services, from their discussions, deduced that shortage of general and specialised comprehensive rehabilitation services is likely to increase over the next 10 years in South Africa.²⁰⁸ The access to services in rural areas is thus not likely to improve in the near future.

7.2.3 Work opportunities for disabled people in the Tsilitwa area

The focus of this study was work opportunities for PWD within the planned development programme rather than investigating informal work related tasks within the households or social circles of the PWD. The discussion thus is also restricted to formal work opportunities within the community.

Unemployment in the area is high. Except for the schools, the clinic and family owned shops there are no employment opportunities. Most of the economic activity is centred around these structures, e.g. women selling fruit and refreshments. The other adults are involved in subsistence farming and household maintenance.

International research shows that income-generating projects, as part of rural development programmes, have had a 50% chance of failure.¹⁸ The researcher's experience in the Eastern Cape was similar. Although this aspect was not included in the study it was observed that many projects were slowly declining. On a visit to the Lubisi and Umtata areas, people involved in projects there mentioned various reasons to the researcher for such collapsed projects, mostly to do with business and financial problems or a loss of motivation. The researcher also observed a lack of problem solving and marketing skills in the projects still running. All the projects seemed to have difficulties in producing a reasonable income for the participants involved, who often seemed to find social gratification out of participation rather than financial satisfaction. The same was found in the Tsilitwa area where the lack of funds to re-erect the collapsed building that had housed the poultry project and the lack of buying power for the products produced in the sewing project were cited as reasons.

The CSIR withdrew its involvement in the area during the course of this study because of funding difficulties. In the researcher's opinion the implementation of the IRDM could have been of great value to the community to ensure sustainability of their development programme. Without the support of an interdisciplinary team the projects planned by the community face the same problems that have caused the collapse of so many community projects. However, the commitment of the leaders in the community who initiated the Tsilitwa development programme is strong and this should ensure that the momentum is maintained.

Involvement of PWD in income-generating projects of development programmes is globally promoted by organisations such as the UN, WHO, ILO and various development agencies like Oxfam. Local policies, acts and strategies have initiated the process in South Africa.^{82,95} The presidential Jobs Summit of October 1998 was aimed at furthering the economic empowerment of South Africans with disabilities. One of the targets set at the summit was that 5% of all economic development investments by public sector, small, medium and micro enterprises (SMME) promotion, training, micro and

industrial credit resources are to be targeted at people with disabilities²⁰⁹. In 1997 the Society for the Blind, the Association for the Physically Disabled and the Society for Mental Health in the Eastern Cape formed REHAB an organisation that acts as a resource for PWD to fulfil their potential. Their objectives are to:

- Build the capacity of PWD and people living with AIDS and their families,
- Facilitate an understanding of the concept for inclusive education,
- Facilitate the setting up of income generating activities in communities and
- Facilitate the placement of PWD in the formal sector.

The organisation is operating from East London with offices in Stutterheim and Butterworth. Although the aim of the organisation is to serve rural areas throughout the province, at the time of the study the organisation was not active in the Umtata region.

This study investigated the opportunities for implementation of employment equity in rural areas in South Africa.

The work opportunities for PWD in Tsilitwa were in the process of development. The discussion is based on information received at the end of the study and during follow-up conversations with Mrs Madikane.

Work opportunities are inevitably linked to opportunities to acquire the necessary knowledge and skills to execute the work activity and will therefore be discussed consecutively. Thereafter the barriers that need to be addressed to achieve access to these opportunities will be discussed briefly.

7.2.3.1 Opportunities

Work

The only work project initiated by the TDC by the end of the study was a bread-baking project. None of the PWD had expressed an interest in this type of employment. The analysis of a bread-baking project did, however, demonstrate suitability for involvement of PWD who have bilateral upper limb functioning. The planned electric ovens and the spacious work area of the new building would thus allow PWD who have the abilities and interest to participate in this project on equal footing with any other inhabitant of the area.

As requested by the TDC, the recommendations delivered to the community in the final report included three scenarios for job matching. Advantages and disadvantages for the development of a sheltered workshop and home industries were presented and a strong recommendation was made for the inclusion of PWD in the planned communal income-generating projects.

The TDC had after the completion of the study applied to the Thabo Mbeki Development Trust for Disabled People for financial support to develop a shoe repair workshop for PWD. The Trust's vision is to enhance the quality of life of PWD and promote their integration into mainstream society.

One of the PWD had expressed the interest to pursue this line of work and the TDC believed that other PWD might be involved in the project with him. From the last communication it was not clear yet where such a workshop would be housed.

Work opportunities thus currently remain scarce for PWD and the direction the TDC has taken indicates that they are favouring separate rather than integrated work opportunities. This would exclude PWD from further development projects of the villages.

The analyses of work projects have shown that with the right structuring and, if necessary adaptations, PWD with physical problems could be included

according to ability and interest in all the projects. This probably also applies to other projects not analysed in this study that the community might consider.

International literature confirms that these opportunities exist by virtue of the fact that no projects are excluded on grounds of unsuitability for PWD. Full integration is thus globally deemed possible for PWD.

Training

Through appropriate knowledge and skills, PWD can be empowered to support themselves and to overcome poverty and deprivation. Global experience shows that in spite of changed legislature, policies and guidelines it still remains difficult to enable rural PWD, particularly those with elementary schooling.²⁰⁴

Training opportunities are generally scarce and often of an inferior standard in rural areas. The lack of adequate training needs to be addressed in planning on a national and district level to remove this barrier to employment. McLaren and Zungu recommend the setting up of databases of training offered in the districts, facilitate the setting up of skills training courses and to investigate the work opportunities for PWD in their communities.²⁰² The government has made bursaries available to PWD who have completed school.²¹⁰ This, however, implies that access to schooling should be available even in rural areas so that PWD can benefit from this opportunity.

Training in Tsilitwa is provided on various levels and through a variety of institutions. There are two primary schools and one technical high school in the villages studied. Tertiary education for those who have access to financial aid is provided in Umtata or other national centres. Various NGOs and development agencies provide ad hoc training for community development projects in the area. Information about when and where such training takes place is difficult to obtain and costs in terms of transport and accommodation often prevent participation.

For the PWD of the Tsilitwa community the following levels and avenues are relevant:

■ The first step in the providing of training should be access to mainstream schooling, where appropriate, and adult literacy programmes. The key skills for further training in South Africa are reading, writing of English and arithmetic. Although some community courses are presented in local languages more formal education is mostly provided in English and communication with suppliers and clients might necessitate the use of English.

■ Mainstream tertiary education is a logical consequence for suitable candidates, which would equip them to compete on equal footing in the job market.

■ PWD should be considered as candidates when the community can send inhabitants to training programmes for development projects.

■ Vocational rehabilitation in the area is carried out as part of occupational therapy programmes and provides basic skills training for a limited number of income generating activities. However, the occupational therapy department in Umtata needs to develop this aspect of their services by further training of the therapists to provide adequate pre-vocational and vocational skills training. The department also needs to develop a referral network for training of PWD who have needs they cannot meet. For example, a link could be established with the soon to be introduced MODE programme in the Eastern Cape²¹¹, which offers entrepreneurship development, support and training for the setting up of a small business or workshop, placement in the formal sector and assistance with structuring of a workshop to accommodate the various needs, as well as consultations on business and financial structuring of the venture.

The importance of work and business skills training cannot be over-emphasised as a basis for both sustainable community development projects as well as the empowerment of PWD to afford them employment equity. The need for implementation of training strategies is stressed in many publications across the world in developed and developing countries.^{49,161,172,212,213,204}

In developing countries training is broadly defined as any instruction, advice or other type of purposeful activity that advances the capabilities of targeted individuals and/or groups through the provision of relevant knowledge and the development of specific skills, including indigenous knowledge.²¹⁴

The importance of the training in rural areas of developing countries is by no means greater than in other circumstances, but because of the lack of opportunities for accessible training it needs special attention in strategies to provide equal opportunities for all.

7.2.3.2 Barriers

Globally and especially in rural areas of developing countries, many PWD do not have the opportunity to participate in the workplace. What prevents them from taking part is often more the result of barriers than the disability itself. Examples of these barriers are:

- The attitude and assumptions of non-disabled people, including employers,
- The way in which employment is structured and organised,
- The built environment,
- Laws and regulations relating to employment.²¹⁵

PWD are not a homogenous group. The various disabilities and combinations thereof have different needs and face different barriers to integration in the workplace. In advancing a “Society for All” the ILO has drafted a code of managing this diverse group in the workplace to act as guide for governments and service providers.

Member states of the OAU are encouraged to address barriers to integration of PWD during the African Decade of the Disabled by active support for training, adaptations to workplaces to allow access to PWD and assistance in work placement.⁹⁸

General environmental barriers have been mentioned briefly before. This subsection will address both the physical as well as the social barriers PWD in Tsilitwa face regarding employment.

Physical

The physical barriers in terms of getting to and from a community project are the environment and the lack of suitable transport. Both can be addressed if they are taken into account when budgeting for a project.

The community is in the early phase of development and all buildings that are erected can without extra costs be designed and built according to national guidelines for accessibility. Awareness of the need for access for PWD has been instilled in the community through this project. It would now depend on the willingness of the TDC to implement suggestions so that no future adjustments and changes will be necessary.

Adaptations to work areas will need to be considered for each PWD on an individual basis. The costs of alterations to accommodate an individual might prevent equal opportunity to compete for a place in a project. The willingness of the community to spend the extra money will thus finally influence the involvement of the PWD in community projects.

As a group project the physical problems can be addressed more economically than on an individual basis. The physical barriers thus become more limiting when an individual workshop or home industry is established. Obtaining supplies and reaching the target market in this remote isolated area in which the PWD, because of the area and their current financial state, have no access to telephone and transport facilities contributes to the difficulties of ensuring a viable income from a home industry.

Social

Social barriers, which could affect the PWD's access to employment opportunities, are the attitude of the community towards them as a group and

the general lack of employment opportunities, which would intensify the competition for work places in the projects.

Both the committee and the community have indicated a tendency to want to keep the PWD separate. The community through reported attitudes like

“They should not have self-pity and should involve themselves in *minor duties* so that they don’t relapse.”

or the more ambivalent attitudes like

“If they can get assistance or training to start *small business for themselves*. They *can also be included in projects* where they will be able to fund raise”

“If they could be build a school for their *special education* so that they come *back with their skills to the community*.”

(Emphasis added)

The TDC has put motions in action to develop a separate workshop, which does not exclude them from future involvement in projects, if the PWD and national guidelines prevail with promoting their rights.

Another indication that PWD were not afforded equal opportunities in the community is the fact that Case VI had been teaching at the technical high school for years without being considered for a post. The involvement was seen as charity towards him, an attempt to make him feel appreciated. The fact that his work was not worthy of compensation put emphasis on his disabilities rather than on his abilities.

Probably the most important social barrier is the strong competition for work in the community because of the general lack of employment opportunities within the area. As both the PWD and the other inhabitants are in the same position with regard to suitable business and work skills, it remains to be seen who will be afforded the opportunity for training and therefore the best positions in the projects.

As both the physical and the social barriers depend to a great extent on the attitude of the community toward disability issues the situation is flexible. One successful involvement of a PWD in a community project could change attitudes positively as experience has shown in other parts of the world.⁴⁹

7.2.4 Employability of the PWD in Tsilitwa

Fifty-eight percent of the PWD included in the study could be integrated in community projects. The empowerment achieved through training and the recognition as equals in the community, would have the effect of reducing depression and functioning on a higher motivational level. This means that they would perform better with time and might be able to take on more tasks or more responsibility in the projects.

Any community, like the one in Tsilitwa, will have a percentage of severely disabled persons who will have to be supported. However, if the majority of PWD can contribute economically the burden will not only be lifted for their families but the community as a whole will benefit.

There are no doubts in the minds of global and national policy makers that it is not only possible but highly desirable to achieve employment equity in all communities. Few studies were found about employment opportunities for PWD in rural areas in developing countries.^{172,204,213} No published studies were found on involving them in general development programmes of communities. This is thus a relatively new development and will need attention to ensure that rural communities do not lag behind in the implementation of employment equity. The great challenge lies in the timing of intervention. In the researcher's opinion a multi-disciplinary approach like that of the IRDM of the CSIR would be ideal to illustrate the possibilities of integration, assist in the implementation and support the community in following through with the provision of access to all its inhabitants.

At this point in the development of the Tsilitwa community the timing to integrate the PWD appears to be perfect. By including them in the planning for the development programme about to be launched, accessibility issues can

be addressed from the start. In this way the PWD could participate from the beginning as equals with minimal extra costs involved. However, the community's transition from a traditional to a modern society is not complete and it is necessary to aid and promote social change to assimilate the new philosophies.

If the PWD in Tsilitwa follow the route of self-employment they are by no means unique. The literature shows that in rural areas self-employment appears to be the most common form of employment for PWD globally.^{171,216} Such information implies the lack of implementation of integration policies in community projects worldwide.

If there had been employment opportunities in the open labour market in the area one of the PWD would have been able to rejoin the open market with the encouragement of the new policies and laws of the country.

The study has shown that more than half of the PWD in the villages are employable. The reasons they have not been able to rejoin the labour force were personal and societal attitudes, the lack of opportunities and the environmental barriers in the area.

7.3 Discussion of research method

7.3.1 The participatory research approach

The participatory research approach was selected for three reasons:

- Theoretical reason - Participatory research, based on ecosystemic human rights and development frameworks is directed at human, political, economic and social emancipation. It is a suitable approach for use by social scientists and health professionals to enhance the full human development of disempowered people.

- Political reason: - Many disadvantaged South African communities have in the past experienced no benefits from the results of research. They feel they have been abused by researchers for their own gain and

have no improvement in their situation to show for it. A request for research has thus to be initiated by the community or its leadership so that it will be meaningful for them. In this study a request was made by the TDC to investigate the employment possibilities for PWD in their community.

■ **Personal experience:** - The researcher had developed a research model based on the theory of Rifkin¹⁷⁸ and Whyte¹⁸¹ during a previous study in a rural community and had found the participatory process to be beneficial to all participants.

In applying the approach the researcher experienced similar difficulties to those described by Doherty and Price,²¹⁷ e.g.

■ **Concluding the project in the predetermined time** – The researcher only had one year in which the study needed to be brought to a conclusion. This implied that awareness of the issues had to be raised, the community educated in terms of PWD rights and their attitude determined at the same time. The community's attitude could not be investigated before and after the input on these matters because it was not possible to mobilise the community as a whole to participate in the research at the beginning. The research process activated an interest in the issues as demonstrated by the reasonable attendance at the attitude survey. The process thus needed to be adapted to fit the time frame.

■ **Protecting the independence of the research project findings given the political agendas of the participants** – The initial agreement helped to keep the study on track instead of turning it into the development of a home industry project in spite of considerable pressure from participants with such agendas.

■ **Inconvenience of distance** – This impediment could only be overcome by careful planning and by obtaining the participation and support of the community members who made up the participatory research team.

- Need for good research skills by team members - The training of community members and careful follow-up checks were needed to ensure acceptable findings.

- Cost implications – The withdrawal of the CSIR team from the area put serious constraints on the implementation of the study. This resulted in fewer visits than planned in the protocol and resulted in more pressure to complete the study within the predetermined time.

However, In spite of these difficulties the researcher, in agreement with Doherty and Price²¹⁷, believed that the advantages of the approach outweighed the problems, namely that participants:

- Had the opportunity to participate in the design and implementation of the research study,
- Improved the quality of the information,
- Assisted in transparent planning and consensus realisation,
- Expanded their knowledge and skills.

The process generated commitment and ensured that the community acted upon the findings.

The TDC approved the approach and remained committed to the study throughout the year. The committee members assigned to participate devoted freely of their time, shared their knowledge and experience, and worked well together as a team with the researcher. The assistants from the community were enthusiastic and completed their work with pride. They went far beyond their duties to ensure that the researcher could complete her part of the investigations and proved to be valuable members of the team.

Isolated negative remarks from community members indicated that not all members considered such a study beneficial and that they would prefer more tangible results from outside interest. The majority of the members, especially

the families of the PWD, gave their full co-operation and were open to the ideas presented in open meetings about disability issues.

The most important aspect of the participatory approach was found to be the shared planning. On each visit the next step was discussed and agreement reached among the team members. The researcher is convinced that this was the main reason why the execution of the study progressed according to the mutual plans. The needs of the various members had to be accommodated and as a result there were small changes as the study continued, e.g. including the speech and hearing therapists in the planned visits of rehabilitation professionals because the clinic sisters wanted to screen the school children for hearing defects, although this was not the focus of the physical disability survey undertaken.

Because individual needs were accommodated within the agreed upon plan, as long as they did not divert the study from its objectives, everybody felt recognised as a worthy member of the team. Making absolutely certain that all team members understand the objectives of the joint study from the very beginning is essential. Early agreement on what was to be done and mutual respect prevented the study from derailing near the end when financial support was expected from the researcher for the implementation. It had been agreed in the first meeting that the disabled people would be integrated in the general development projects, therefore, no additional funding for them would be needed to provide work opportunities.

The withdrawal of the rest of the CSIR team complicated this issue. The community now had to find another development agency to support their development plans. In the spirit of participation the researcher presented a training course in fund raising to the TDC and put them in contact with some development agencies. This again ensured goodwill from their side and the study could be completed.

This incident illustrates the importance of co-operation and insight into the factors that affect participation. Such insight can only be gained through a

close working relationship, an openness to the various value systems and good communication.

The MBR model was applied through all its phases and as expected led to the next cycle. As agreed, the researcher ended her involvement in the community on completion of the study and could only act as advisor for this step. She was not able to accompany them through another cycle but followed the process through telephonic consultations and by supporting their applications for funding to the Thabo Mbeki Development Trust.

The contrast between a participatory approach and the customary research practices was illustrated by the involvement and withdrawal of the rest of the CSIR team. In a customary research situation, when the researcher scouts for a suitable situation for his research, the focus of the research is his own goal. If a community-initiated request is addressed through a participatory research approach, the desired end result is to provide answers to the community. The commitment entered into is ethically binding in both approaches. However, it appears to be easier to break this commitment if the researcher elects a community on his own accord and decides for a one-sided reason that another location is more suitable for reaching his goal.

In this study the CSIR had become aware of the community through work in a different community in the Eastern Cape. They investigated the Tsilitwa community to establish whether they could apply their IRDM. The community then made the request for this study and the researcher was brought on board. The researcher was free to select her own approach for the study and chose a participatory approach because of previous experience of research on community level. The agreement between the researcher and the management of the CSIR team was that the information supplied by this study would be used by the team and her recommendations in terms of integration into the development programme would be implemented by the team in the community's development programme.

The discussions of the CSIR with the community created certain expectations, which could not be met by the researcher after their withdrawal. This left the

researcher in the awkward position of being a representative of the CSIR but only addressing a small fraction of the community's needs. It meant that the recommendations of this study could not be implemented after completion of the research. This was a great disappointment and diminished the value of the study.

Notwithstanding the above, the researcher is of the opinion that the study could still be completed because of the collective agreements reached in the planning of the study. Furthermore, the process provided the community members with knowledge and skills with which they can proceed to implement the recommendations in their own way.

7.3.2 The method of assessment

A two-phase survey was conducted. In the first phase the self-reporting method was intended to identify the households in which PWD were residing. The questionnaire was based on questionnaires used in similar studies by Concha⁷⁹ and McLaren⁷⁸. The questions were phrased in the positive (e.g. Can use his right hand?) to emphasise abilities the person has, whilst gathering information on disabilities. The questionnaire was designed for use by the research assistants. The layout proved to be user friendly and the scoring method effective as shown in the inter-rater reliability test described in **Chapter IV**.

All persons who had reported difficulties or a lack of use were then followed up in the second phase for more in-depth assessment. The functional assessment was designed with a view to its future use by community health workers. Instead of formal assessments of various performance components, observations are made in function of how these components are used. Abnormal patterns and the speed of execution are noted but the focus is on the occupational performance, i.e. whether the activity can be performed effectively.

The functional tasks posed in the assessment were found to be appropriate for the community and can be used in other rural communities. However, the

researcher did find that she made extensive use of her knowledge of the performance components needed to execute the tasks and her experience of assessing disability in her interpretations. If community workers are to use such assessment in the future it would have to be included in training programmes.

The dressing and eating activities were effective for observing hand and upper limb function and the range in which the activity could be performed if the objects were positioned appropriately. The picking up and carrying of the brick had to be adapted and interpreted according to the highest position in which the person was functional, e.g. in sitting for a wheelchair-bound client.

The functional assessment was also found to be very effective in eliminating pretended disability because clients focus on the task and are inclined to forget the pretence. The following case illustrates such an incident. Respondent No. 13 entered the room complaining of pain in walking and sat down groaning with pain. The movement patterns he displayed did not fit with the problems he reported to have retained from a motor vehicle accident. He demonstrated no problems in performing the tasks. He enjoyed the attention and started to show off his strength as a man, throwing the brick into the field instead of just picking it up, and jogging to fetch it and return it to the researcher. When it became clear that he had no disability the family confessed that he had developed serious addiction problems since his convalescence and was not working, they did not know how to handle the situation and thought he might be eligible for a disability grant.

Another advantage of the functional assessment was that it could be carried out in a relatively short time. Because the various performance components are integrated in the tasks they can be observed simultaneously. This however does complicate the assessment again for inexperienced fieldworkers.

The various items of the kit were easily obtainable and could be substituted by local materials, e.g. a rock of a comparable weight instead of the brick, own shirt. It was also easy to transport the kit while walking from house to house.

The researcher thus found the functional assessment to be effective to use in the circumstances.

7.3.3 The use of the ICF in the study

The usefulness of the data for comparison on an international level is restricted by the limited use of the ICF and the small sample size of the study. The ICF was used as a conceptual basis for the study was. The further classification of the qualifiers of the limitations was felt to be too complex for the level worker for which the system of assessment was designed. Although the classification was certainly culturally applicable the system is cumbersome in the field. The comprehensiveness of the classification, designed to address the complexity of the study and documentation of disability in itself appeared to be a disadvantage in fieldwork with community level workers in developing countries.

Other researchers have found the lack of a standardised definition for disability and measuring instrument problematic. The meeting at a workshop on Disability Statistics for Africa held in Kampala Uganda (2001) recommended the use of global questions for the screening of disability in a population based on activity limitation, which should record severity, a time frame and use of assistive technology. The use of such global research tools would make data comparable.²¹⁸

Another reason for restricted value is the transitory nature of the findings. As discussed earlier the community in which the study took place is in transition. Developing and developed communities are constantly changing as the paradigm shift in the global perception of disability demonstrates. Such changes affect the barriers PWD face and therefore their level of functioning. Unless detail of the environmental factors is taken into account comparisons are unscientific.

The researcher therefore used the global tools for background information to begin the development of a strategy for integration which could have wider application after refinement.

7.3.4 The method of analyses

The analysis formats were designed with community workers as intended users in the future. The researcher developed a uniform scoring system for both the functional analysis of the PWD and the work activity, based on the levels used in the FIM, so that the two analyses can be directly compared to make a job match. The comparisons between the client's functional abilities and the job requirements are thus on a functional level instead of the traditional performance component level used in occupational therapy analyses and job matches.

The web type recording system was designed to give a visual image of the corresponding abilities and the shortfalls, which either make a match impossible or can be corrected through adaptations. The match was done on a computer but can be plotted on forms where such facilities are not available.

The system and the visual illustration of the web, the WAW, were found to be effective but once again the researcher used her knowledge and experience extensively in the final conclusion for the job match. Scoring is complicated if a person uses a different position to work in than the average worker will, e.g. working in sitting rather than in standing, although the activity can be equally successfully performed in that position. Normal requirements were scored but in a variety of positions. This was the reason why an average score for a task could not be assigned and alternative scores for some components had to be made.

A final conclusion of a suitable job match is a complex integration of physical, psychological, cognitive and motivational components with the requirements of the work activity, taking into account environmental and social barriers as well as the possibility of appropriate adaptation where necessary. Whether this can successfully be carried out, even with training, on a community level will need further investigation.

The analysis of the clinical reasoning that is applied in the job match was the first step in formalising this decision making process. According to

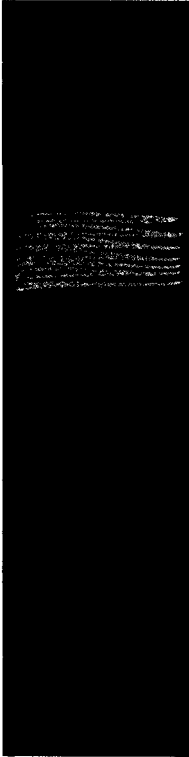
Hammond's six modes of enquiry it advanced the practice from intuitive judgment (Mode 6) through peer-aided judgement (Mode 5) to developing a system for the system-aided judgement of Mode 4, along the cognitive mode from intuition to analysis.²¹⁹ Further research is thus needed to test this system by trials and experimentation to achieve the highest level of clinical expertise of Mode 1.

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Information of disability prevalence on its own does not provide the impetus needed for implementation of the global policies and national strategies that can lead to full integration of PWD in their communities in all corners of the world. This study aimed at investigating the possibilities of achieving integration in rural communities where the situation is even more complex because of remoteness from the driving forces and the lack of services and facilities. The discussion in this chapter illustrates the complexities of both disability studies and research in such rural communities. The effectiveness of this work depends on whether the conclusions are meaningful to the community studied and others in the same situation, and whether the recommendations for further study and implementation find application.

Chapter VIII

Conclusions and recommendations



“I am concerned about the whole man. I am concerned about what people using their government as an instrument and a tool, can do toward building the whole man, which will mean a better society and a better world.” - *Lyndon Johnson*

Conclusion and recommendations

- Opportunities for integration into the workforce in development projects
- Research in rural communities in South Africa

8.1 Introduction

A thousand opportunities invite us to a new life. Christian Morgenstern

This study was part of a community-driven development programme in three villages in a remote rural area. The conclusions drawn in this chapter are specific to this area and not necessarily applicable to all rural areas in South Africa. The recommendations cover both recommendations for the Tsilitwa area, as well as recommendations to address the aspects studied on a national level.

This chapter firstly provides the conclusion on achieving the research aim and secondly a conclusion on the suitability and effectiveness of the research

methodology. Recommendations on both these aspects follow directly after the respective conclusions.

8.2 Opportunities for integration of PWD in development programmes.

The conclusions reached through the results and the discussion of these in the previous chapter will be discussed per objective and the final conclusion given in the sub-section on the actualisation of the aim.

8.2.1 Conclusions

8.2.1.1 Actualisation of objectives

1. Draw up a community profile in terms of the adult PWD

The conclusions on the various points agreed upon in the first phase of the participatory process for this objective are as follows:

■ Identification of adults with physical disability

The percentage of physical disability was 1.35% in the age group of 16-40. The incidence of lower limb impairments was high (91%) and appeared to be the most disabling because of environmental barriers.

The burden of disability in poor rural areas, with high unemployment rates and inadequate services, is severely felt by the whole community. The economic burden reduces families with PWD in rural areas to being the poorest of the poor in the country. The inadequate medical and rehabilitation services and transport and training facilities leave rural PWD and their families isolated and in despair. Social and cultural isolation aggravate the situation, rendering the PWD powerless and despondent. This results in low self-esteem, depression and inactivity as illustrated by the PWD's low level of motivation, with 58% at the level of passive participation or lower.

■ Needs and aspirations of the PWD and the community/care-givers for integration into the work place

The needs expressed and observed in the community are typical for under-serviced rural communities in developing countries. The poverty, lack of knowledge about their rights and the services that could assist them, together with the social and physical barriers to an active community life, have resulted in depression and a lack of motivation. In this state the PWD foresee little hope for improvement and cannot formulate what they need in order to better their situation.

The strongest need was for financial assistance or a means to procure an income. This emphasises the importance of implementing employment equity policies and strategies, as well as addressing the problems in the local system to obtain disability grants for PWD who are not able to work.

■ Level of skills of the PWD in the area

Only 8% of the PWD had tertiary training that could be used if a suitable project was initiated. The general lack of schooling and formal skills training, especially of the women, stresses the importance of access to mainstream schooling and the equal access to training programmes that the community is planning for their projects. Although the traditional, indigenous knowledge will be useful the PWD will need to develop their skills to be competitive in the job market.

■ Attitudes of the PWD, caregivers and community to equal employment opportunities for PWD

The Tsilitwa community was found to be in a transitional phase of development in which traditional norms and beliefs are being replaced by modern philosophies and guidelines. Community leaders are committed to change and are attempting the implementation of government directives. An example is the founding of the Tsilitwa Committee of PWD, through which the PWD of the area have obtained a voice and will be involved in future planning for the community. The committee members will need

support and encouragement to ensure that this step will effect the necessary changes to achieve full integration.

2. Investigate the planned job creation projects in the IRDM for suitable integration of the PWD

Conclusions of the investigation of the work opportunities cover the following three aspects:

■ Planned projects

All previous community projects had stopped functioning by the beginning of the study. The TDC reported to be interested in developing bread baking, gardening, sewing, poultry farming and shoe repair projects in their community. By the end of the study the implementation of the bread-baking project had begun. Involvement from development agencies and the commitment of the TDC and the community should result in sustainable projects which will benefit all in the community.

After the final report on the study the TDC decided to develop a shoe repair workshop for PWD in Tsilitwa.

■ Facilities

The present workshop is accessible for PWD. Professional help will be needed to adapt personal workstations according to individual needs. The contact with the professionals in Umtata was created by the study to ensure the referral line for such adaptations.

Awareness of physical accessibility issues was created in discussions with the TDC and through the report on the survey delivered to the community in November 2000, and should positively affect all future planning, ensuring that facilities will be made accessible.

The main roads in the villages were levelled at the end of 2000 making them accessible to wheelchair users. The distances, lack of transport and

the hilly nature of the environment remain barriers that do not allow PWD full access to facilities in the area.

■ Resources in terms of training and adaptations needed by PWD

Contact was established with the regional rehabilitation team and awareness created of the services they provide. The referral network has been restored and all the role players have been made aware of the importance of this in the lives of PWD and their families.

The community has been provided with contact names and telephone numbers of people who could provide vocational rehabilitation and training for PWD, as well as development agencies that provide training for community projects.

Resources remain scarce, however, in terms of training and adaptations for PWD as well as for community projects in the area.

3. Assess the placement possibilities for integration of the PWD into the workplace developments.

None of the identified PWD was interested in the first project the TDC initiated, a bread-baking project. That will hopefully not exclude interested persons outside the investigated age group and persons with physical problems who are functional, as identified in Phase I of the disability survey.

The planned poultry farming and sewing projects will provide further employment opportunities for many of the PWD.

The shoe repair workshop for PWD that has been initiated by the TDC will provide a work opportunity for the most destitute PWD in the area and might provide opportunities for more. The scope for growth of the workshop will depend on the local demand for the service. It is, however, limited by the remoteness of the area in terms of reaching a wider market.

8.2.1.2 Actualisation of aim

The aim of the study was to investigate the opportunities for the integration of PWD into rural development programmes. The aim to study opportunities has been achieved only on a theoretical level since the promised opportunities failed to materialise when the CSIR withdrew.

The area in which this study took place was typical of many rural areas in South Africa where development efforts have taken place but with little evidence of success to be seen. Until recently various projects had been initiated and run by individuals in the area. These efforts did not actually constitute a development programme. The formation of the TDC and mobilisation of the community by the committee had started the process of a co-ordinated development programme, with the income generating projects still having to be realised. Therefore, opportunities had to be deduced from investigations of community projects in general.

The study was initiated by a request from the TDC and carried out at the time to fulfil their request. The advantage of doing the study at the beginning of the community's development programme was that they could take disability issues into account from the beginning. The disadvantage was that it was impossible to implement an integrated work placement which would provide a model for further placements. Although the agreement with the community was for the necessary information about work opportunities and not the implementation of the recommendations, an example of successful employment would have provided a convincing argument for the integration of PWD in the development programme, especially at the stage of social transition in which the community was in terms of disability issues.

The WAW was found to be effective in illustrating a job match on functional aspects and could be used by community health workers with some additional training. The method could be used in situ for uncomplicated cases, thereby providing a local service, reducing the cost of transport and hospitalisation/accommodation for vocational rehabilitation purposes and decreasing the workload of professionals. For complex cases the referral

network can be used to obtain the services of professionals for analyses, matches, adaptations and guidance on workplace structuring. A flowchart for the process is provided as **Appendix VIII**.

The disability survey, the analyses of projects and the theoretical job matches have shown that persons with physical disabilities could be integrated in all community projects the community wants to implement according to interest and abilities, if the following process can be performed:

- Assessment of abilities and aspirations – A discharge assessment after a completed rehabilitation programme, vocational assessment by an occupational therapist, or a functional assessment as used in the study by a trained community health worker is needed to provide a complete functional profile of the PWD. This should include the motivational level of the client.
- Job analysis – A professional job analysis or an analysis performed by a trained community health worker using the format developed in this study is needed to clarify the requirements for effective and safe performance of the work tasks.
- Job match – A professional opinion on a suitable match or the use of the WAW developed in this study is necessary to investigate a match and the need of adaptations for successful placement.
- Placement – The necessary access, structuring and adaptations have to be implemented. This includes a supervision or assistance structure where applicable.

8.2.2 Recommendations

The community needs assistance and guidance in the development process it has undertaken. Financial support on its own will limit the pace and scope of development in spite of the remarkable dedication of the leadership and the potential for growth that exists in the community.

To achieve full integration of the PWD in the villages' development programme the transition from the traditional norms and beliefs to acceptance of modern philosophies and guidelines must be completed. The awareness created on disability issues needs to be followed up with further education and successful implementation, so that the theory can be assimilated into the community's own history and culture. The community will then be ready to incorporate the legislature and strategies for equal opportunities into their development programme for the benefit of the community as a whole.

To implement the integration of PWD into the workforce of the development programme the following issues need to be addressed:

- Inclusion in the planning – Either the TDC or the development agency should involve the regional rehabilitation professionals as consultants to ensure that legislation and strategies are put into operation.

- Tsilitwa Community of PWD – The local committee of PWD needs to be empowered to act in their own interests and ensure that their needs are considered by the TDC in the development programme for the area. Active involvement by the PWD themselves will ensure sustainability of the initiated process of integration.

- Local process for assessment, job match and work placement – Local community health workers need to be trained in the job placement process, described in the previous sub-section, for uncomplicated cases. The training should include identification and assessment of disability and should place emphasis on observation skill especially of motor components needed for work, like range of motion, or sensory and cognitive components, like perception or proprioception. Community health workers should refer the complex cases via the network (Tsilitwa Clinic, Sulenkama Hospital, Bedford Hospital) to professionals at the regional centre. Referrals to professionals should include information on the work opportunities available at the time and environmental barriers in the area. The community workers should follow up on placements to ensure that the

match was successful, the adaptations are functional and that optimal work relationships are maintained.

■ Professional rehabilitation support network – Occupational therapists at Bedford Hospital should receive further training in vocational rehabilitation to perform assessments and job-matches for the complex cases referred to them. Their services should include the provision of assistive devices and guidelines on adaptations to work activities. A follow-up service should include enquiries on a successful match and advice on necessary changes that could improve access, structuring or relationships. Outreach visits are important to maintain the referral network, identify problem placements or develop further work opportunities. Regular contact should be maintained with the Tsilitwa Committee of PWD to support their efforts and provide them with new information on disability issues.

■ Training network – A network of training providers in the Eastern Cape needs to be developed for both specialised training as well as mainstream training to ensure that PWD have equal opportunities to develop their skills so that they become and remain competitive in the job market. Information in the form of a database needs to be made available to professionals working in the region and the communities they service.

Primary health care services are available in all areas of South Africa. Referral lines are established for all these local areas to regional centres. The recommendations for Tsilitwa could thus be applied in any rural area under the right circumstances.

Ideal circumstances would be an integrated development approach, a sustainable development programme, committed leadership, involvement of PWD, trained health workers at all levels and effective referral systems.

To achieve ideal circumstances in rural areas in the country the following steps need to be taken:

■ Create awareness of disability issues with development agencies and communities – Information to development agencies on disability issues

and international and national guidelines for implementation of employment equity is the first step to ensure that disability issues are addressed in development programmes. Development agencies globally assist in developing countries where local government is unable to address all the needs of the inhabitants in their areas. Rural areas, because of their remoteness and often sparsely populated vast spaces, are often the last to be serviced. Because of the legacy of Apartheid there are many such areas in South Africa and many development agencies and NGOs at work in them. If they could address disability issues as an integral part of development for all inhabitants of a community, integration of rural PWD in work projects and their communities could be applied nation-wide. Information could be presented by addressing development conferences, and training modules could be introduced in programmes designed for local developers like the Ecogrow Foundation, an organisation involved in developing a national developers' training programme to be presented by all technikons in the country.

■ Training of CHW – The creation of a post classification for community rehabilitation workers is still being debated. Although three provinces, Gauteng, KwaZulu Natal and Limpopo, trained and employed such workers few rural communities in the country enjoy such services. To assist the communities which do have community rehabilitation workers a module on the method of assessment and job matching used in this study could be included in their training. In areas where there are no such services an occupational therapist could present a course to community workers from NGOs, DPOs, health workers or clinic personnel on identifying activity limitations, screening the complexity of the case for referral to professionals, functional assessments, basic job requirements and making a job match with the WAW developed in this study. Even in developed countries rural areas are understaffed with professional rehabilitation personnel. It is thus not foreseeable that South Africa will be able to provide enough professional personnel to offer all PWD in the country professional services. By selecting the most complex cases for

professional intervention and assisting the uncomplicated cases from within the community more PWD can be served.

■ Postgraduate vocational rehabilitation training focused on the needs of rural areas – Postgraduate vocational rehabilitation courses, such as the Postgraduate Diploma in Vocational Therapy presented by the University of Pretoria, provide excellent training in this field. However, the courses include assessments carried out with expensive, high-tech equipment and the knowledge and skills learned are more applicable in centres where services and economic opportunities abound. These courses could include modules in which the focus is on appropriate knowledge and skills for under-resourced areas. Alternatively, special courses should be developed for therapists working in provincial centres that service rural areas.

■ Development of the referral networks – An effective referral network, utilised by well-trained persons from both the community and the tertiary levels, is the key to providing an appropriate service for the circumstances. Provincial health planners have provided the referral lines. Knowledge and experience will build and strengthen the network to include the various role-players a community requires to address its needs. The importance of such a network and the basic role-players needed to start a network should be taught in courses for community workers and professionals alike.

■ Development of training networks – The local school system and local governmental training facilities should form the basis for the training network. Involvement of development agencies who are aware of the rights and needs of rural PWD should expand the network, by providing access to training courses they offer. Vocational rehabilitation services provided by government and private enterprise need to address the needs for training that cannot be met in mainstream education. As the development process progresses the community will have formed more ties and gathered further information on appropriate training available, and the network will expand.

The social acceptance of PWD's rights and the willingness of local communities to address the issues are the key to implementation of the global guidelines to full integration of and employment equity for PWD. Disabled People's Organisations and health professionals should co-ordinate their efforts to create awareness and support local PWD to find their place in their societies.

8.3 Research methodology

8.3.1 Conclusions

The research methods selected were effectively applied to achieve the aim set for the study. Through involvement with the community some additions were included, but all the aspects agreed upon for the study during the planning phase with the community could be investigated and processed in the given time frame. Both the research approach as well as the WAW method was found to be useful in the community setting. The conclusions on these follow.

8.3.1.1 Participatory research

The participatory approach and the participatory model through which it was applied proved to be effective for research in a community setting, for the following reasons:

- Research approach - Given the distance the researcher was based from the community studied, the lack of communication facilities (cell phones could only be used from a hill outside the village, thus only pre-arranged calls could be made from the researcher's side) and the withdrawal of the rest of the team, the successful completion of the study can be accredited to the commitment from both parties through the participatory approach. A strong bond was forged between the representatives of the TDC assigned to the study, the research assistants and the researcher, through planning and working together. The participating community members received recognition from the

community, as observed in the community meetings in which plans, progress and results were presented, and were proud to be presented as examples of community builders by the chairperson of the TDC during closing ceremonies for the various stages of the study. This approach creates ownership of a research study and its results, not only by the researcher but by the community as well. The community thus receives something they can use instead of feeling used for the benefit of strangers only.

■ The participatory model – The phases of the MBR model were applied as described. The use of the model ensured that the participatory approach was followed throughout. Criticism from an advisor that the feedback phase should also involve the community is well founded. In this study there was no opportunity to first share the results as a team and then present it to the community together. The format of the feed-back session had been planned together during the previous visit and was presented to the community accordingly. Questions were dealt with as a team, involving the members of the Tsilitwa Committee for PWD as well. The same comment was made about the analysis phase, which is commonly left to professionals outside the team. If community members share in the presentation to the community it would enhance the feeling of ownership and would make the presentation more appropriate for the community. Similarly, if simple statistical calculations are involved, a shared analysis process might shed light on this research step for persons who have not been involved in research before. This new knowledge would empower community members and could encourage and aid further enquiry into the effectiveness of customary activities and improvements thereof.

8.3.1.2 Work Abilities Web

The WAW used in the study can only be seen as a prototype. The assessments as well as the web were designed with community workers as intended users, in order to widen the service reach of vocational rehabilitation personnel. The comparative scoring scale of the functional assessment and the job analyses provided a means of superimposing the two onto one type of

graphic illustration The depth of the analyses on a functional level was considered effective so as to make a match, and feasible so as to be carried out by persons without the equipment, knowledge and skills for in-depth performance component assessments. However, as illustrated by the discussion in the previous chapter, the researcher had relied on her professional knowledge and skills to draw conclusions from her observations, e.g. in the functional assessment of activity limitations when observing the integrated performance components and deciding on a scoring level in the job analysis if the client used an unusual work position. This leads to the conclusion that the method cannot simply be applied by any category of community health worker. The same conclusion can be reached for using the WAW as an instrument for applying the general process described in **8.2.1.2**, i.e. that only trained personnel would be able to use the web effectively.

8.3.1.3 Contributions of this study to the accumulated knowledge of the scientific community

The final stage of the research was the report back to both the community as well as the scientific community. New findings and developments of research enrich both. The feedback to the community was described in **Chapter IV**. This thesis constitutes the feedback to the academic community.

Although the global guidelines and national policies, accepted by the local DPOs, were applied, the size of the study limits their use on an international level. The experience of research in a rural community could be of value for other communities and researchers and will be reported in relevant journals.

The study contributes the following innovations to the knowledge base of health and social sciences theory, in terms of disability and development issues:

The Mutual Benefit Research Model

The participatory research model, developed in previous research and refined during this study, has proven to be useful in meeting the needs of the various members of the team participating in the research. The shared experience not

only meant shared ownership but also increased the knowledge and skills of all the persons involved.

The frustration experienced by the researcher and the community because of the restricted involvement by the researcher in the community emphasises the value of a long-term relationship with a community. Credibility and good relationships with community members before embarking on research ensures that research undertaken truly meets communal needs. Long-term involvement allows for implementation of findings and follow-through in new cycles. Continued participation can also develop the knowledge skills participants acquired in the process to maximise the empowerment. Sustained capacity building combined by formal training opportunities, where appropriate, would consolidate various inputs and result in true enablement. Collaborative research as this study started out with the CSIR team thus poses a danger of exploitation if team members are brought in without consideration of the effects of short-term contact with a community.

It can be concluded therefore that the MBR model would be most useful for professionals, of various disciplines, involved in long-term community work.

The assessment format

■ The questionnaires – The questionnaire for Phase I of the survey was adapted from existing questionnaires to make it serviceable for the use of non-professional personnel in disability surveys. By phrasing the questions in the positive the interviews with community members and PWD stressed abilities, thereby contributing to the awareness of PWD's abilities to participate in a variety of social and work activities.

■ The functional assessment – The functional assessment compiled for this study can be used not only by professionals but also by community health workers after some basic training. It is practical for assessment in community settings where sophisticated equipment is not available. The researcher is convinced of the method of assessment as a tool to distinguish between real activity limitations and feigned disability.

The analysis method

■ The scoring system – The comparative scales for the analysis of abilities of PWD and job requirements are unique. Although many systems exist for both aspects, the use of a scale that can be used for direct comparison has not been described in the literature before.

■ The Work Abilities Web – The purpose of a single scale was to develop a comparison system for use by community rehabilitation workers (CRW). However, the method as demonstrated in the results chapters could be developed into a computerised system with further research.

The job match process

The job match process is described in the literature as an occupational therapy clinical reasoning process. The described process in this study is an attempt to analyse the process. It has triggered the interest of specialists in the field who will no doubt develop this line of thought further.

The study and the academic theory provided are an attempt at demystifying the integration process of PWD into the work place. The researcher saw the invitation to participate in the investigation not only as an opportunity to assist PWD in a rural community in a remote corner of the country, but also as a challenge to develop a clear method to open doors to PWD elsewhere.

8.3.2 Recommendations

Recommendations in terms of the methods used include the following two aspects:

■ Participatory research – Community members should be drawn into participation during all phases of the model. After receiving analyses from statisticians the researcher should involve the members of the team in the interpretation of the results and the development of the feedback report. In the current development stage of the country this will contribute to the general education and upliftment of community members. Specific team members can

be assigned to the task as with certain planning aspects of the study. As full community members PWD should be considered as community participants and should be included in planning and recommendation of research that concerns them.

■ Work Abilities Web - The focus of the study was to investigate work opportunities. The researcher used the opportunity to simultaneously explore methods for vocational assessment and the placement process that could be applied at the community level. The development of the WAW was intended to find a solution to the shortage of professional personnel in the area and the country as a whole. The conclusions indicate that although it was used effectively in the study, the method needs refining and an application system developed. As a spin-off from the actual study it will therefore need further development.

■ Recommendations for the comparative web include the following:

- Further research to investigate whether the assessment and analyses are comprehensive enough for universal implementation,
- Further research to establish the reliability of the scoring system,
- The development of a computer programme and manual format for wider application,
- The development of appropriate training programmes for community health workers,
- Research to establish whether community rehabilitation and community health workers can be effectively trained to apply the model to make suitable job matches.
- An investigation into the effectiveness of such a placement system using international guidelines for the development of health systems.

It is hoped that when this method is thoroughly researched it will contribute to the implementation of policies and achieve integration in the workplace for all PWD in the country, even those in the remotest rural areas of South Africa.

8.3.3 Final deductions

The situation of the PWD in rural areas is desperate. Global philosophies and national policies and strategies have not yet delivered the desired results for them. The solution to the PWD's plight lies in the development of a strategy which will reach into these areas.

The most obvious change occurring in the communities is driven by development programmes, which because of constraints in terms of finances and experts at a local level are mostly facilitated by NGOs and development agencies. A logical deduction is thus to include disability issues into the repertoire of aspects addressed in sustainable rural development, so that the necessary attitudinal changes are achieved in the general social development of the communities, and the needs of all citizens are taken into account in the planning for development. This would open the way to full integration for PWDs into their communities, including work opportunities.

A strategy developed with input from representatives of rehabilitation disciplines, DPOs, community development committees and development agencies should thus include:

- Enlightenment of development agencies in terms of global guidelines on disability issues and disability prevalence and needs of PWD in local communities,
- Guidelines for an integrated, multi-disciplinary approach to sustainable rural development,
- Well-defined indicators to measure sustainable development of these issues,

- Guidelines for the evaluation of the implementation of the national disability policies in development programmes.

Work opportunities for PWD in rural areas are affected by the general scarcity of work and the attitude of the communities they live in. Although there are signs of changes in rural communities, specialised workshops and more enlightened attitudes to integration in the workplace are currently only found in larger centres. Financial constraints and shortages of professional services in the country will affect services and opportunities in the rural areas for an undetermined time to come. Isolated efforts have often not been sustainable or have resulted in duplication of services in some areas and neglect in others. These inconsistencies add to the frustration of PWDs, their families and professionals attempting to co-operate with projects, alike.

This study is an attempt to gather information from the local communities about their needs and attitudes so that it can be assimilated in the accumulated scientific knowledge. This knowledge base needs to be extended and brought to the attention of agencies that could utilise it to the benefit of the people on the community level. Wider application of such knowledge could lead to sustainable co-ordinated efforts at applying strategies for full integration.

Effective implementation, instead of the fragmentation by which efforts have been plagued so far, thus depends on mobilising both ends of the spectrum – the global agencies and the local communities.
