Rehabilitation Manual: 3

AN INTRODUCTION TO PERSONAL ADJUSTMENT FOR THE VISUALLY DISABLED

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A Words from the Editor

In 1995 the National Rehabilitation Center for the Disabled(NRCDC)became a World Health Organization(WHO) Collaborating Center for Disabled Prevention and Rehabilitation. As a project for 1996,,the Center began working on the publication of a "Rehabilitation Manual", the objective of which is to provide information concerning the rehabilitation of people with various disabilities. In publishing this manual, our intention is to describe and present a systematic framework for the rehabilitation of the disabled in Japan . This manual may be used to arrive at solutions to problems which may exist in various countries and regions, or as reference material for review to assit future development in this field. Those of us at the Center would be delighted if this work generates insights for future discussion and practice.

The three manuals "Habitation of Hearing-Impaired Young Children", "Prosthesis and Orthoses in Japan" and "An Introduction to Personal Adjustment for the Visually Disabled" have been written by instructors among the division of education and training of professionals at the NRCDC. However, I would like to emphasize that the concepts described in this manual are commonly acknowledged throughout Japan.

The content planned for this publication project extends over all dimensions of rehabilitaion, including the service frameworks, administrative policies, laws, specialist technologies, and methods for developing and educating specialists for each respective disability. Accordingly, we expect this to become an ongoing project. If an active exchange of opinions and communication between specialists develops through this process, it will further promote the development of rehabilitation of the disabled. We invite any type of criticism,opinions, and/or general inquires from the readers.

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Preface

The goal of this booklet is to describe the field of personal adjustment training for the visually disabled as a part of rehabilitation services. Personal adjustment training may vary according to the individual's cultural, historical, and regional environment. Therefore, personal adjustment training plans are carefully developed based on the individual's environmental factors, potential ability, personality and the degree of the visual impairment. This booklet does not describe the individual's training plan of personal adjustment. Rather than that, this booklet is intended as an introduction to the professional work in the area of the visually disabled. The contents in this booklet refer to the current status of blindness rehabilitation services in Japan.

AN INTRODUCTION TO PERSONAL ADJUSTMENT FOR THE VISUALLY DISABLED

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1. What is "Shikakushogai"(Japanese for: visual impairment, disability, handicap)?

The concept of "shikakushogai" is the first thing to understand in discussing the rehabilitation of the visually disabled. Additionally, it is necessary to have the knowledge and the understanding of visual disability itself. In this chapter, the concept of "shogai" and "shikakushogai" (and the status of the visually disabled in Japan) are explained.

1-1. The concept of "shogai" (Japanese for: impairment, disability, and handicap)

The Japanese word "shogai" has three different meanings in one word. These are "impairment", "disability" and "handicap". The meanings of these three words are clearly defined in English-speaking countries. These are used to clarify the situational differences in the rehabilitation process for the physically disabled. The World Health Organization (WHO) has established these three terms as the concept of "shogai". Today in Japan, too, the concept of "shogai" is described by using three different terms. The following are definitions by the WHO international disability classification

Impairment : In the context of health experience, an impairment is any loss abnormality of psychological, physiological, or anatomical structure or function.

Disability: In the context health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

Handicap: In the context of health experience, a handicap is disadvantage for a given individual, resulting from an impairment or a disablity, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and socail and cultural factors) for that individual.

These three terms also describe the rehabilitation process.

A visual dysfunction (impairment) is mainly handled by medical personnel; whereas rehabilitation workers deal with personal adjustment problems (disabilities) for the visually disabled; and the socially related problems (handicaps) are generally handled by social workers.

1-2 The concept of "shikakushogai" (visual impairment, visual disability, and visual handicap)

The definition of "shikakushogai" may vary depending on the circumstances; such as educational, medical, and social welfare services. However, the degree of visual impairment can be classified into two major categories; blindness and low vision.

1-2-1 Medical definitions

In medical terms, blindness means loss of light perception and "low vision is reduced visual acuity in one eye in the absence of organic disease that is the result of cortical suppression of an improperly focused or directed retinal image. It may occur as monocular suppression in strabismus, un-corrected monocular high refractive errors or opacities of the lens or cornea that occur at birth or early in life."(quoted from [Clinical Low Vision]by Eleanor E. Faye). This is called "AMBLYOPIA"(jakushi). This term is differentiated when discussed in the areas of education and social welfare service. There are two different ways of describing the one word, "Jakushi" or "low vision"; as AMBLYOPIA , medically, and LOW VISION (partially sighted).

1-2-2 Definition in the field of education

In the field of education, "low vision" is determined by what affect the visual impairment has on a person's education compared to a sighted person. Table 1 shows the degree of visual impairment and its placement. It is based on 2 of Article 22 of the laws governing education (in Japan.)

* Table 1. Instructional Education & Placement for Levels of Visual Impairment

Degree of visual impairment	Educational Placement
1 Visual acuity in each eye is worse than 0.1 with the best corrected refractive error	School for the blind
2 Visual acuity in each eye is better than 0.1 and worse than 0.3 with best corrected refractive errors and/or visual function, other than visual acuity, that is severely damaged and may require the use of Braille in the present and/or in future.	School for the blind
3 Visual acuity in each eye is better than 0.1 and worse than 0.3 with best corrected refractive errors, but those who do not have other severe visual function besides visual acuity which makes the studying by using regular print in some way a possibility.	Special classes or mainstream with special considerations

[NOTE: Visual acuity is measured by a universal visual acuity chart and refractive errors are corrected with the appropriate lenses.]

"A severe damage to visual function excluding visual acuity" means a severe visual field loss, night blindness and albinism.

1-2-3 Definition of social welfare service areas

The position of Social Welfare Services are prescribed within the Law for the Welfare of Physically Handicapped Persons and the concept comes from the promotion of rehabilitation for the physically disabled. Six different levels are defined within this law according to the degree of visual impairment and it impacts many service plans and policies for the visually disabled.

Table 2. The classifications for the visually disabled under the Laws for The Welfare of the Physically Handicapped

Levels	Statement of the visual impairment
Grade 1.	The sum of each visual acuity with best corrected refractive errors is shown to be worse than 0.01.
Grade 2.	1) The sum of each visual acuity with best corrected refractive errors is better than 0.02 and worse than 0.04 2) Each visual field is limited to within 10° and the ratio for the loss of visual efficiency is more than 95%.
Grade 3.	1) The sum of each visual acuity with best corrected refractive errors is better than 0.05 and worse than 0.08. 2) Each visual field is limited to within 10° and the ratio for the loss of visual efficiency is more than 95%.
Grade 4.	1) The sum of each visual acuity with best corrected refractive errors is better than 0.09 and worse than 0.12. 2) Each visual field is limited to within 10°.
Grade 5.	1) The sum of each visual acuity with best corrected refractive errors is better than 0.13 and worse than 0.2 2) The binocular visual field is limited to within half of the normal binocular visual field
Grade 6.	The sum of each visual acuity with best corrected refractive errors is better than 0.2. However, this means that the visual acuity in one eye is worse than 0.02 and the visual acuity in the better eye is worse than 0.6.

1-2-4 Miscellaneous

There are more definitions based on different laws; such as fundamental pension laws, laws governing worker's compensation, and laws for the employment of the physically disabled.

2. The Concept of Rehabilitation for the Visually Disabled

"Shikakushogai"(visually disabled in Japanese) is classified as one of the physically

disabilities. However, a visual disability is also considered a sensory disability of which is classified into the three types of: sensory, physical and internal impairment. Sensory disabilities can be further classified into hearing impairment and speech impediments. It is very important to understand that "shikakushogai" is not only a physical impairment but also a sensory impairment. This is because the rehabilitation process varies according to the type of disability. The Japanese word "rehabilitation" itself is not always used with the same meaning. Sometimes, problems in communication occur even among the professionals themselves because the word "rehabilitation" is misused.

2-1 The meaning of rehabilitation

2-1-1 Rehabilitation is not only for the medical field.

Originally the word "rehabilitation" was used for regaining human rights. Thomas J. Caroll defines rehabilitation in the following manner: "Rehabilitation is the process in which people with an adventitious visual impairment find themselves in various different circumstances and become perplexed due to their inability to cope, but obtain an understanding of their own handicap and those of others and the skills necessary to cope with the disability and to handle their own emotions and the environment." This definition gives us a strange feeling today, but when we consider the process of rehabilitation for the adventitiously disabled becoming independent, it makes a lot of sense for them to accept their disability and manage themselves within society.

The word "rehabilitation" is often compared to the word "habilitation" but these two words are strictly different in meaning. "Rehabilitation" is the process that enables the disabled person to return to a lifestyle that was enjoyed previously, while "habilitation" is the process to enable the person's life to develop.

2-1-2 Rehabilitation in ophthalmology

As mentioned before, rehabilitation for the visually disabled is not restricted to the medical field only. There is a different kind of rehabilitation in the area of ophthalmology. The main target of rehabilitation services may be the person with "amblyopia". Specialists involved in this type of rehabilitation are called "orthoptists". Orthoptists are treated as ophthalmic professional workers

governed by the Orthoptists Act established in 1971. Besides general orthoptics, they are also involved in general ophthalmologic examinations under an ophthalmologists. Strabismic amblyopia is within the realm of orthoptics and therefore, rehabilitation for the visually disabled in general is not considered a medical rehabilitation.

2-1-3 From occupational independence to real independence as a person

Until 12~13 years ago, the idea of independence for the visually disabled was thought of in terms of securing a job. However, this notion became the norm for all who were visually disabled, such as seniors with visual disabilities and persons with multiple disabilities. Both areas need to be considered, not only complete physical and economical independence but also partial independence with some kind of support ('shelter" and/or "independence'.) Recently the basic idea of real independence in rehabilitation has been brought into Japan, and occupational independence is only a part of the independence. The basic approach of professional workers that deal with the visually disabled is that the disabled must first regain dignity and only then is the relationship with the self realized and the concept of rehabilitation begins to be established.

2-2 The definition rehabilitation for the visually disabled

The definition of rehabilitation for the visually disabled is for them to regain their former lifestyle both mentally and physically prior to the loss of sight. To do so, they would compensate for the impairment by using other senses as well as any residual visual function effectively and use adaptive aids based on their past experiences.

3. The principles of rehabilitation for the visually disabled

It is very important to understand the basic principle of rehabilitation for the visually disabled since it has the distinctive feature of being a sensory disability

3-1 The awareness and acceptance of a visual impairment

Rehabilitation for the visually disabled begins with the realistic awareness of the disability. Real independence does not occur without accepting the reality of being impaired. (This is different from understanding the disease and lesions medically.) The awareness of being visually impaired and the acceptance of living with a visual impairment in the future makes the rehabilitation process

meaningful. Understanding the medical condition which remains as a dysfunction and not curable in terms of the limitations of modern medical science is the key to the rehabilitation training.

3-2 Developing a system of alternative senses

Based on the awareness described above, the gaining of alternative senses is necessary for the process of rehabilitation in order to reduce the limitations of mobility for the visually disabled. This process should be supported appropriately and effectively by professionals. The ultimate goal of rehabilitation of the individuals should be a system to replace senses that are appropriate to the individual.

4. The Structure of Rehabilitation for the Visually Disabled

4-1 The areas of rehabilitation for the visually disabled

What kinds of services are available to the visually disabled and how are these services implemented? The response to this question is to create a system for the rehabilitation of the visually disabled, but when considering the rehabilitation system, careful consideration must be given to the rehabilitation process.

There are different areas of rehabilitation for the visually disabled depending on the backgrounds of the respective specialists. Currently these are the medical, social, psychological and vocational rehabilitation areas. Each area is responsible for their respective process of rehabilitation. Generally speaking, very few medical workers are involved in the rehabilitation services, however it would be rash to consider medical workers totally excluded from the rehabilitation process and this is because the job of an ophthalmologist is to prescribe the necessary visual aids. There is no doubt that medical treatment is within the area of responsibility of the ophthalmologists but ophthalmologists also have the responsibility of informing the patients of their loss of sight. The notification clarifies the beginning of the rehabilitation and the role of ophthalmologist is to then inform the patient of the loss of sight and to refer the patient to rehabilitation facilities and social welfare agencies, and to provide the necessary medical information to the rehabilitation workers in order to preserve any residual vision, counseling

for hereditary disease. In this area medical staff means ophthalmologists, nurses, and orthoptists.

Social rehabilitation is mainly the job of social workers. The role of social workers is to plan for the general rehabilitation program, counsel the visually disabled, support family adjustment, support the utilization of social resources, community organization and coordinate, as a team, the various professional workers in different fields of specialization. Therefore, when the need arises, the social worker may become involved during medical care. The other side of social rehabilitation is the rehabilitation training program to become independent. The personal adjustment training program is carried out by rehabilitation workers for the visually disabled. The purpose of this program is for the visually disabled to become independent within the community.

Psychological rehabilitation promotes the psychological adaptability of the visually disabled. There are cases where the adventitious visually disabled person cannot reach his/her individual goal and goes into shock as a result of their impairment and develops a negative attitude towards being independence, quitting the training midway. Psychologists must then encourage the visually disabled to reach the goal through psychological guidance.

Vocational rehabilitation is to be independent vocationally. Vocational counselors gives guidance on the working attitude and assists in the acquisition of a vocational ability. Vocational training for the visually disabled is very limited (such as; acupuncture and massage courses, computer programming courses and telephone operator courses) and the Japanese vocational history for the visually disabled still have an impact today.

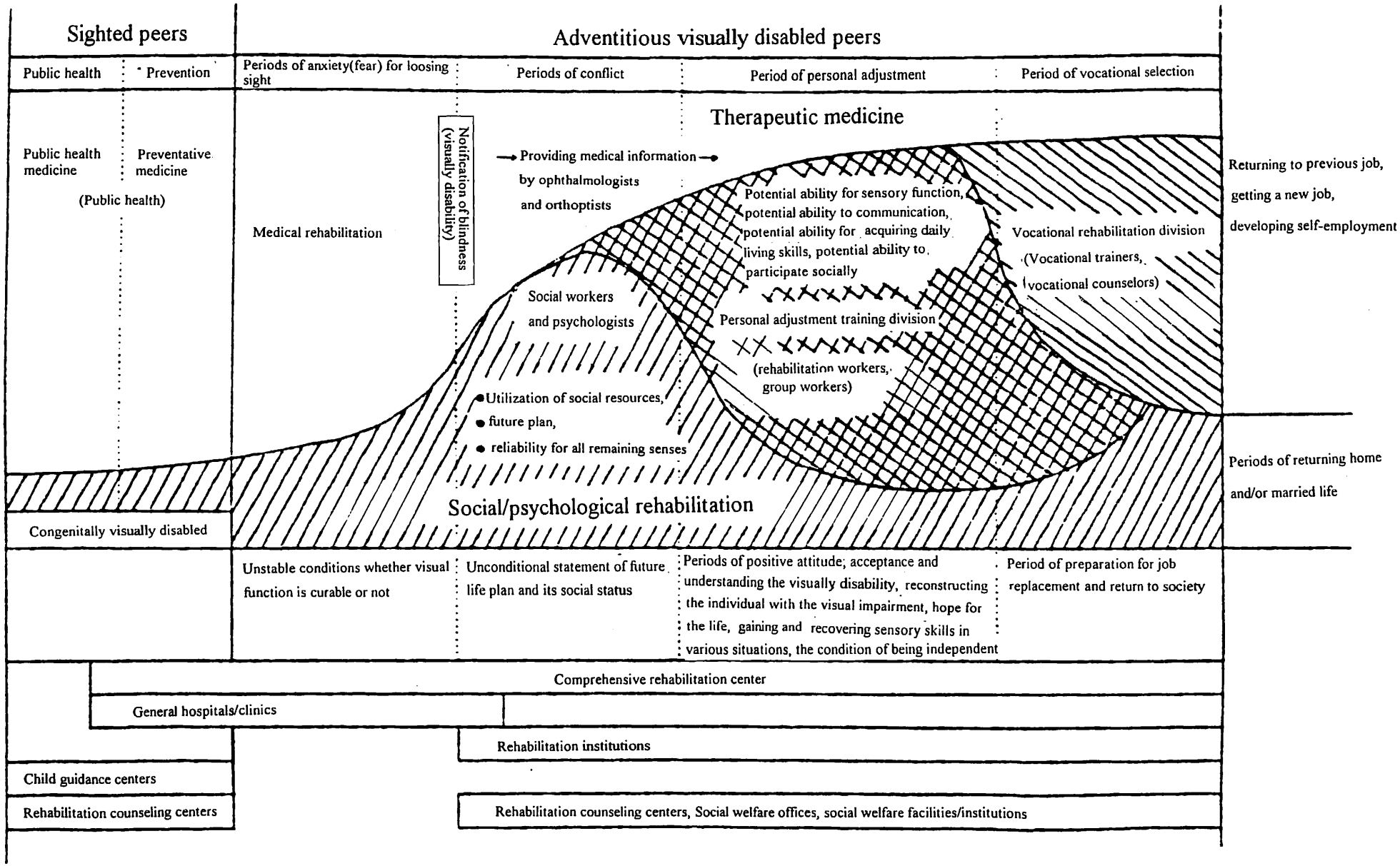

Figure 1. The rehabilitation process chart for the visually disabled

4-2 The role of low vision clinic

Low vision services is significant in the system of rehabilitation for the visually disabled. In Japan the first low vision clinic was founded in the department of ophthalmology at the hospital of the National Rehabilitation Center for the Disabled. Since then, low vision rehabilitation services have been efficient and effective. The services offered at low vision clinics may solve vocational problems without changing the job situation (the present job). Low vision clinics are not real personal adjustment training facilities, they can, therefore, be explored, in the future, as a rehabilitation service with a medical twist. The staff at a low vision clinic consists of ophthalmologists, orthoptists, social workers, nurses and other professionals when necessary. The professional teamwork approach is used for helping the visually disabled to adjust in society through their services; such as, prescribing low vision aids and training its effective use in a short period of time. However, it is very difficult to provide services to all visually disabled with residual vision because of the different types and different degrees of impairment. Some patients may need long term training in the residential facility. In that case, referring them to other rehabilitation training facilities is important under proper low vision evaluation.

4-3 The structure of rehabilitation services for the visually disabled

There are various forms of rehabilitation services today and these services need to be systematically developed.

Institutionalized residential services for rehabilitation training has been emphasized in the past and up until today. However, in recent years, the home care services are considered and suggested more frequently. Besides the residential facilities and itinerant services, some facilities provide day care training services. Legally, rehabilitation institutions for the physically handicapped and social welfare centers for the physically disabled B-type are conventional. Rehabilitation institutions in Japan are formed as a social welfare administration, therefore there are no facilities staffed entirely by volunteer workers. Strictly speaking, social welfare administrations are semi-governmental and semi-private. The administration in each facility is under the supervision of the Ministry of Health and Welfare. They all function similarly and each facility in Japan lacks uniqueness, now may be the time to consider deregulating these facilities.

Generally speaking, this type of institutionalized service also provides day care services. Some social welfare administrations that provide institutionalized services also provide itinerant services as a service commissioned by the city and/or the prefecture's administration. Many of the facilities that provide itinerant services are not certified as a social welfare administration. Most of these facilities are then councils for the disabled or administrative foundations.

Rehabilitation services for the visually disabled are divided into two categories, one is institutional service and the other is mainly itinerant service; both types of services have merits and demerits. The institutional services provide a variety of services performed by various different types of professional workers. The visually disabled have many opportunities to interact and discuss their feelings or future plan with their peers. This makes it easier for individuals to accept their disability realistically. Environmentally, residential services may be better than itinerant services since there is also a system for periodical medical administration and it is easy to undergo treatment for systemic diseases and other illnesses. On the other hand, there is a need to adapt to the facility rules to live as a group and the training environment is different from the real environment which means that the individuals may not be able to use their learned skills in their own community.

Itinerant services are less restrictive compared to residential services that require time for the individual to adjust physically and psychologically. They provide the service for the individual's needs within a real community setting. This type of service is also advantageous for the person who is not able to use residential services due to family reasons, but it also has its demerits in the form of decreased opportunities to interact with peers, less opportunities of having a variety of services by various different professionals, and the difficulty of managing health control and treatment of illness.

These pros and cons are an on going real situation in Japan. It is not always constitutional. However, this should all improve with the development of a service network. At any rate, it may be necessary to divide the residential function and the itinerant service function and make the two types of services more efficient. Even within the facilities size and function varies. We are have reached a period in time in which the needs of the visually disabled must be met with the appropriate type of service based on individual needs. This will be an important issue in the future.

4-4 The structure of subsidiary services surrounding the visually disabled

The visually disabled require many subsidiary services in order to live within the community. These can be broadly divided into systems related to facilities, to organizations for the disabled, to home-based services, to guide dog programs, to volunteer activities, to programs to use adapted living aids. In the area of educational area, there are schools for the blind.

(1) Systems related to facilities

Facility services for the visually disabled are classified as the following: rehabilitation institutions, residential home care, vocational facilities and community based facilities. Physical disabilities refer to physical impairments in the narrow sense of the word, visual disability, hearing disability, speech disturbance, and internal disabilities. Therefore, the visual disability is included within the meaning of a physical disability.

There are two types of rehabilitation institutions ; rehabilitation institutions for the visually disabled and rehabilitation institutions for the severely physically disabled. Rehabilitation institutions for the visually disabled have personal adjustment training programs and vocational training programs for massage and acupuncture (and moxocauter). The other institution for the severely physically disabled rehabilitate with the objective of achieving social independence through a personal adjustment training program.

There are two different types of residential home care services: convalescent homes for the and nursing homes for the physically disabled. The former is a residence for the severely disabled including the visually disabled who needs continuous care and assistance with medical management and health care. The latter is a residence for the physically disabled who have difficulty in their living situations with family members. This facility allows the disabled person to live as independently as possible.

The vocational facilities encompasses sheltered work institutions for the physically disabled, sheltered work institutions for the severely physically disabled, daycare sheltered work institutions for the physically disabled and others. The sheltered work institutions for the physically disabled provide vocational training for the physically disabled who have difficulty working in companies in the mainstream. The goal for this facility is to allow the disabled person to be independent

vocationally by providing work that is in accordance with the individuals' ability. The sheltered work institutions for the severely physically disabled provides the training to be independent in an accessible environment with assistance. Even though they may have the ability to work., these individuals may not able to work in a regular work environment because of their severe disability. The daycare sheltered work institutions are the same as the sheltered work institutions for the physically disabled. The difference is whether the individuals commute to work from the their homes or not.

Community based facilities are the following; social welfare centers for the physically disabled (A type), social welfare centers for the physically disabled (B type), day care service centers for the physically disabled, rehabilitation centers for the physically disabled, Braille libraries, facilities for Braille publication, and homes for the blind. The social welfare centers for the physically disabled promotes health awareness, sports, leisure, culture and recreation as well as a variety of counseling. Social welfare centers (B type) are for the severely physically disabled at home who have very few opportunities to go out and/or work. These daycare facilities provide leisure activities (creative activities), easy work and personal adjustment training. The day care service centers [the difference from the B type is that is basically for all physically disabled and not only the severely physically disabled] provide daytime care for the disabled. Rehabilitation centers for the physically disabled are leisure facilities where the disabled, his/her family and volunteers can to relax and stay overnight. The Braille libraries offer library services, such as Braille publications, tape-recorded books, in accordance with the the needs of the visually disabled. The facilities for Braille publication are for publishing Braille books and articles. Homes for the blind are provided for the visually disabled worker who needs a place to work and to refine the techniques for massage, acupuncture, and moxocauter after mastering the skills. It provides an environment which makes living independently easier.

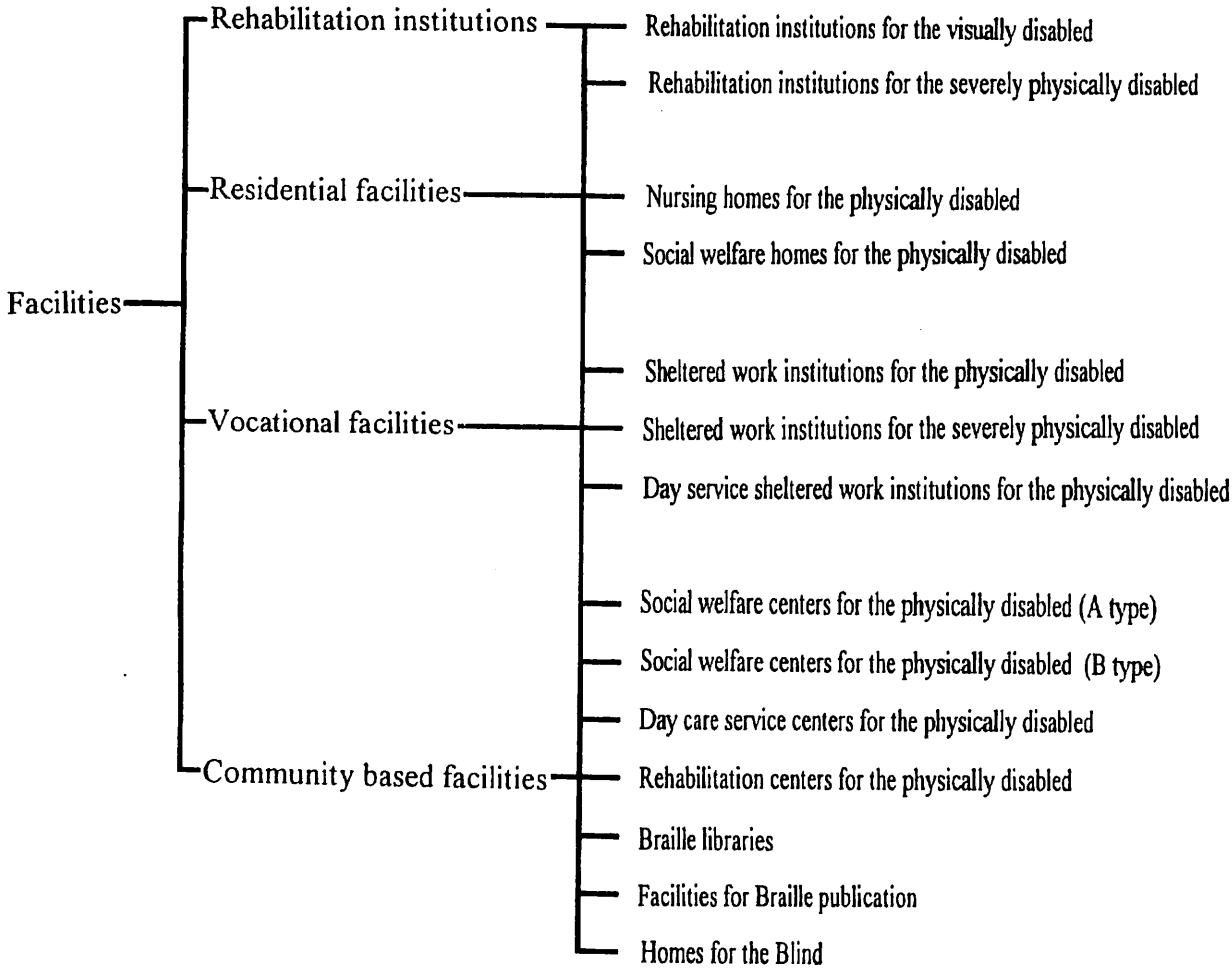

Figure 2. Chart for these facilities

(2) Disabled Organizations

These organizations are administered by the disabled themselves to counsel the visually disabled individuals and support their vocational situations. Each prefecture has one organization throughout Japan. Additionally, the Japan League of Society for the Blind is established in each prefecture ; the members are visually disabled themselves. Presently, there are approximately 50,000 members. This organization brings together demands for administrative services for the visually disabled and provides mutual exchange among the members.

(3) Home Based Services

The services for the visually disabled living at home is promoted by the Ministry of Health and Welfare. The policies planned by the government are executed by the local authorities. The home-helper dispatch programs provide for the severely physically disabled at home who have difficulty with daily life. The role of the home-helper is to assist in daily living care which may entail chores or sometimes accompanying them when going out. The guide-helper dispatch programs are provided for the visually disabled who are not able to travel independently. The role of guide-helpers is to be a "sighted guide". Personal adjustment training programs, such as orientation and mobility skills and adapted daily living skills are provided in order to become independent.

(4) The Guide Dog Programs

Guide dogs are one of the aids for mobility. There are 8 certified training facilities for guide dogs in Japan. Currently there are approximately 800 guide dogs being used by the visually disabled in Japan.

(5) Volunteer Activities

Volunteer activities are also important for the visually disabled in daily living. The councils for social welfare located in each prefecture coordinates and organizes the volunteer activities and training for the volunteers. The councils for social welfare are a nationwide network and it facilitates the smooth running of each council. The Japanese Red Cross Society also promotes a variety of volunteer activities such as participation in various events, Braille translation services and reading services.

(6) Services that provide adapted devices and daily living aids

The government supplies adapted devices and daily living aids according to the needs of the visually disabled. Based on the Law for the Welfare of the Physically Handicapped, the following aids are supplied ;adapted devices, such as white canes, prosthetic eyes, glasses and Braille writing guides. Adaptive devices as daily living aids are tape recorders for the visually disabled, clocks (watches), timers, KANA typewriters (Japanese typewriters for phonetic script), electric calculators, electromagnetic hot plates, speaking thermometers, balances, Braille books, weight scales and closed circuit televisions. In some cases, the individual is responsible for payment but that depends on the person's income.

(7) Educational services

For the visually disabled under 18 years of age, the ministry of Health and Welfare has established at least one school for the blind in each prefecture and is implemented as a special education program. In the mainstream, low vision classes are set up in elementary and junior high schools according to need. There are opportunities for the visually disabled who wish to attend a regular college or university to do so. Each school for the blind has a vocational training course for massage, acupuncture (and moxocautery) which has traditionally been offered as a career choice to the visually disabled. Training courses to be an instructor in those courses are also provided. Admission to these courses is restricted to the visually disabled only.

4-5 The flow of the rehabilitation process for the visually disabled

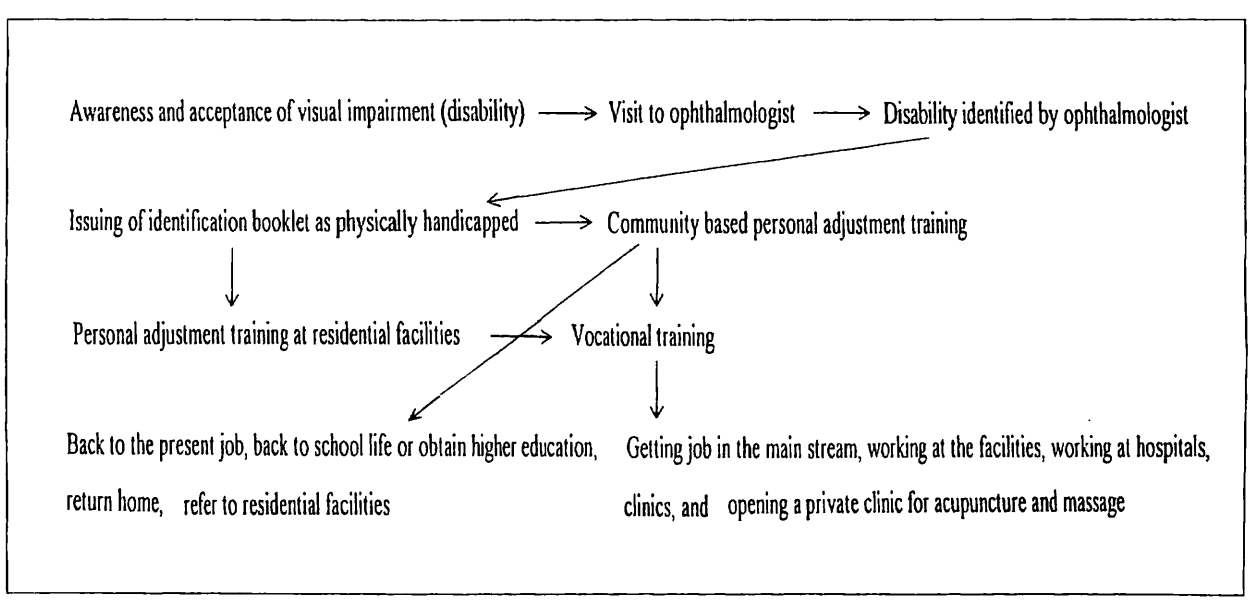

Figure 3. Flow chort of Rehabilitation Process.

The individual visits an ophthalmologist after feeling that something is wrong with the eye or after a health screening at work. If it is a visual disability the ophthalmologist notifies the person of the visual impairment when it is diagnosed and determined functionally. The ophthalmologist also may inquire whether the individual accepts the registration of being identified as disabled.

The ophthalmologist has to evaluate the type and degree of the disability and submit a report in accordance with the procedures prescribed by the Law for the Welfare of the Physically Handicapped. With the ophthalmologist's medical report, the individual applies for an identification booklet for the physically disabled at the local social welfare office in his/her residential area. The issuance of this booklet is not mandated by law but is issued at the individual's request. The individual is officially admitted as physically disabled and he/she is able to receive social services as prescribed in accordance with the Law for the Welfare of the Physically Handicapped.

Therefore, holders of this booklet are eligible to receive social welfare services. Thereafter they can receive counseling,, personal adjustment training and vocational training through the local social welfare office. The social welfare worker may contact the rehabilitation institute for the physically disabled or the rehabilitation institute for the severely physically disabled. The rehabilitation training leads to independence in obtaining higher education, returning home, back to the present job, obtaining employment in mainstream, and a referral to a nursing home or other residential facilities. However, mastering personal adjustment skills does not always mean to be independent in the rehabilitation process for the visually disabled. The rehabilitation training itself is not the only tool for real rehabilitation.

5. Personal Adjustment Training

The area of personal adjustment training is very important training in the rehabilitation for the visually disabled. In the process of the rehabilitation this training period is somewhere between the final stage of medical treatment and the beginning of vocational training. This training also gives social interactive skills to be independent in society. This chapter explains the philosophy and the contents of personal adjustment training.

5-1. The philosophy of the personal adjustment training

The purpose of this training is aimed to enable the visually disabled to adjust within his/her real community and/or society, it is called "shakai-tekiou". The word "shakai- tekiou "(social adjustment) is considered a personal adjustment. It means that the individual functions as a member of society. It does not describe a particular real society.

The personal adjustment training provides the person with a visual impairment, the opportunity to function in society as he/she used to do or even better than before the disability. The training offers orientation and mobility which are the basic skills for independent travel, communication skills, adaptive daily living skills, adaptive recreation and leisure information and gathering living information through the various resources. The training is performed by using the other senses as well as the residual visual function effectively and using adaptive aids when necessary. It is based on the past experiences and goals of the individual. The training process is systematized in order to regain the lifestyle the individual was used to before the visual disabled both physically and psychologically. It also means that he/she is able to overcome the visual dysfunction by substituting it with other skills and aids.

The process of social adjustment varies from the individual to individual. Every visually disabled person is not always able to conquer the difficulties. One of the reason is that the difficulties are not only physical but also psychological. The acceptance of the visual impairment realistically is very difficult to the visually impaired person and there are many reports that of adventitious visually impaired individuals considered suicide.

5-2 The pillars of personal adjustment training

In the process of social adjustment, rehabilitation workers for the visually disabled have to carefully consider how to provide the training and what kinds of training to offer. There is no doubt that it is necessary to provide training based on the individual's needs and ability.

Presently the followings are generally the main factors for training

(1) Orientation and Mobility

(2) Activities of Daily Living

(3) Communication skills

(4) Recreation Activities

(5) Low Vision Training

(6) Knowledge

According to these items, the initial evaluation is performed before the training and the individual's program is customized in accordance with the first evaluation.

Orientation and mobility training is difficult for the visually impaired. However, it is a very important training to obtain the strength psychologically after being able to travel independently. After the training, the individual can travel independently which he/she could not do independently before. The completion leads to the gaining of self-esteem and confidence. Moreover, the achievement of mobility skills creates greater motivation for the individual to learn other skills. In some cases it is not necessary to obtain the entire independent mobility skill. However, independence is always encouraged even in a limited situation.

Generally, orientation and mobility training consists of sighted guides, orientation skills, indoor mobility skills, basic outdoor mobility skills, skills in a residential area, skills in shopping areas, skills in downtown, and advanced skills. The methods of mobility skills are traveling with a sighted guide, with a cane, with a guide dog, with electrical devices and a combination of electrical devices and other methods. If the person has residual vision, training to make effective use of the residual vision is also provided. Professional workers (Mobility instructors) have to determine which method is the best or better for the individual's need.

Communication skills provide the adaptive communication skills for the visually disabled. When the person looses his sight, it is easy to think of using Braille stereotypically as a method of communication. However, visually impaired persons are not always able to use Braille as a method of communication; some people may have difficulty with the sense of touch due to diabetes or for other reasons. The methods of communication for the visually disabled are: the skills for listening and speaking, the use of Braille, tape recorder, optacon, word processors (personal computers), voice activated calculators and handwriting. Some communication skills are necessary to live in society independently. The listening and speaking training for the visually disabled is not considered important among ordinary people. However, the visually disabled are not able to see non-verbal

cues such as gestures and facial expressions. Therefore, listening and speaking skills are very important to communicate with other visually disabled and with sighted people.

Activities for daily living skills are categorized into two major sections. One is personal management and the other is home management. It is difficult for the visually disabled to understand the necessity of learning daily living skills because they feel that they can handle everything themselves. There are many students who think that they can do the required task by themselves. Practically many of those students cannot perform in a real situation although they understand the task very well verbally. They are often referring to their situation prior to their visual disability. One of the difficulties of teaching daily living skills is to evaluate the previous knowledge and real skills which the individual had, unlike the orientation and mobility skills which can be started from scratch. Mobility skills are the techniques for traveling and these skills do not have any meaning without purpose. For example, mobility skills are performed to get the grocery store, but once there shopping skills are now required. Daily living skills are always connected with some other skills, so it is necessary to observe how much and what kinds of daily living skills are being mastered in any training area.

Besides the basic survival skills, recreational activities are important , in order to broaden the scope of leisure activities. The visually disabled tend to be passive when participating in activities due to the limitation of mobility. However, through recreation, self-esteem and motivation to be independent increase for some. There are two categories of recreation,, one is sports; such as baseball, table tennis, bowling and the other sports. The other form of recreation is leisure activity, such as playing cards, chess, listening to music. The basic idea is to inform the individuals that there are many activities that they can do by using modified skills and aids.

Low vision training provides training for the visually disabled with residual vision. There are three different situations depending on the working distance; such as near, intermediate, and distance (far) when providing low vision training. The training for near distance is mainly for reading and writing, and for intermediate distance is daily living activities and far distance is mainly for mobility. The purpose of low vision training is to be able to use the residual vision effectively and maximize the residual vision. Therefore, the visually disabled with only light perception is also eligible for low

vision training. The eligibility requirements for low vision are restricted to the description by WHO. If visual orientation exists, it should be maximized, even if there is only light perception.

Gathering living information is also necessary for visually disabled to live in society. The training will offer them the resource to obtain information such as governmental reports, social welfare services and systems, such as physical disability pension, community services, such as the use of rehabilitation centers. It is important to be aware of the information within the community that is around the visually disabled. Not everything in the area of training is covered. Professionals have to always make individual evaluations based on the degree of the visual impairment, the living situation of the visually disabled, and individual's personality.

5-3 The contents of the personal adjustment training

The goal of the training is to first set up an initial evaluation, and discuss the needs of the individuals. The training plan will be organized based on the goals. During the training, evaluation is needed to re-adjust the plan for the individuals. At the end of the training a final evaluation is done to see if the goals were achieved or not.

The practical contents of the personal adjustment training is explained in this chapter. all training programs are planned individually and based on the initial evaluation.

5-3-1 Orientation and mobility skills

This training is provided individually on a one-on-one basis. It must be taken into consideration that when the visually disabled travel there is a certain amount of risk to their life.

The following explains the skills required for using a cane.

(1) Indoor travel 1) To enable effective and safe travel

a) self protection (upper body, lower body, face and head), orientation skills, direction taking, grid line method, tracing method, trailing method

b) reducing the anxiety of independent travel

c) structuring mental mapping of rooms and/or buildings

d) effective use of landmarks and cues

e) effective use of numbering system for indoors

f) self familiarization

g) effective use of direction(including the four cardinal points)

h) finding dropped objects

i) understanding space without trailing

(2) Sighted guide travel

Travel with a sighted guide is the least stressful. However, the individual is not able to have any privacy during the travel. This chapter explains effective and safe travel with a sighted guide and the skills to teach the sighted guide method to ordinary people when necessary.

1) understanding the methods of visually disabled traveling
2) understanding the basic sighted guide position and its execution
3) understanding the modified position (the difference of height, weakness for seniors, guiding more than one visually disabled)
4) passing narrow pathways
5) doorways
6) changing directions
7) stairs (descending and ascending)
8) sitting
9) guiding at theater (narrow pathway, seating etc.)
10) soliciting assistance (accepting and refusing assistance)

(3) Outdoor skills

It is important to understand the use of the cane and its basic technique and to enable travel with a sighted guide when traveling in a straight line and with/without a cane.

1) Understanding the cane (its purpose and meaning)
2) To enable travel with a sighted guide using a cane
3) Proper way of holding the cane
4) Diagonal technique of the cane
5) Ascending/descending stairs with a cane
6) Placing the cane

7) Touch technique of the cane

8) Sliding technique of the cane

9) Three point touch technique of cane

10) Straight line traveling

11) Adjusting veering

12) Contacting objects

13) Determining objects

14) Getting in and out of a car

(4) Introduction to Traveling in residential areas

Before traveling in residential areas the basic outdoor skills (cane technique and mobility skills) must first be acquired and the concept of mobility in a quiet safe environment.

1) Straight line traveling

2) Detecting a curb and shorelining

3) Turning into a pedestrian path.

4) Detecting intersections for street crossing

5) Crossing the street in a quiet environment

6) Straight line traveling and shorelining

7) The concept of residential environment (difference between driveway and pedestrians path, main street, bus route, bus stop area, block unit etc.)

(5) Traveling in residential area

To enable effective and safe travel in residential areas

1) The use of clues (sound of cars)

2) Detecting the required intersection in residential areas

3) Crossing the street in residential areas

4) Traveling block units in residential areas

5) Detecting the required place in the middle of the block

6) Traveling on the street which is jammed with cars and pedestrians

7) Detecting the intersection of a street jammed with cars and pedestrians

8) Detecting the perpendicular path in a street jammed with cars and pedestrians

9) Detecting pedestrian bridges

10) Traveling in residential areas freely

11) Awareness of distance in residential area

(6) Traveling in commercial areas

There are many obstacles and pedestrians in commercial areas. This environment makes it more difficult to get around for the visually disabled. The goal of learning the skills is to enable the visually disabled to be cognizant of the environment and be able to shop. The skills also enables them to cross intersections with traffic lights effectively and safely.

1) Straight lining travel in commercial areas

2) Understanding the landmarks and cues and its use

3) Traveling the main street in commercial areas

4) Detecting the destination in commercial areas

5) Crossing the street at an intersection with a traffic light in commercial areas

6) Enable shopping

7) Traveling in the mall

8) Railroad Crossings

(7) Traveling in downtown

To enable safe and effective travel downtown in a refined manner. Also enables the use of public transportation to travel to the desired store or department store.

1) Familiarizing the environment of the railroad station area
(familiarizing desired bus stop and taxi area around the station)

2) The use of bus transportation

3) Traveling to the desired destination using a bus

4) Becoming familiar with the layout of the station area (Inside the station area)

5) Getting on and off the train

6) Traveling to the desired destination by using railroad transportation

7) Transferring railroad lines

8) Traveling in downtown (crowded area)

9) The use of escalators and elevators

10) Traveling in department stores

11) Soliciting assistance (accepting and refusing assistance)

12) Gathering information to get to the destination by using the telephone

(8) Advanced training

This training is provided after the basic skills are acquired and enables the visually disabled to travel safely within their environment (commuting, etc.)

1) Traveling in subways (station area and shopping area)

2) The use of the subway system

3) Traveling in complicated railroad station areas

4) Traveling in air terminal areas

5) Crossing a scrambled intersection with traffic light

6) Crossing an intersection with a timed traffic light

7) Miscellaneous (traveling in suburbs, parks and amusement areas)

5-3-2. Activities for daily living skills

This training consists of two separate parts, one is personal management and the other is home management. Personal management enables the person to learn basic need skills such as bathing and grooming. The home management training enables the person to take care of household chores, such as cleaning, cooking and keeping financial records.

(1) Personal management

1) Personal hygiene (brushing teeth, washing face, shaving, cut nails,)

2) Use of the toilet

3) Bathing

4) Eating skills

5) Clothing (selecting clothes and putting them on /taking them off)

6) Putting on make-up

7) Identifying personal belongings and organization

8) Bed making (Japanese and western style)

9) Shoe care 10)Money identification

10) Money identification

11) Money management

12) Telling time (includes the use of watch and/or clock)

13) Using telephones

14) Understanding manners and acquiring social skills

15) Safe smoking if necessary

16) Miscellaneous

(2) Home management

1) Cleaning rooms

2) Laundry

3) Cooking

4) Shopping

5) Sewing

6) Manage household finances and maintain household records

7) Child care

8) Wrapping

9) Maintain and organize legal documents

10) Maintenance of household appliances

11) Simple repairs of household appliances

12) Gathering information for living

5-3-3 Communication skills

The visually disabled are able to use verbal communication therefore, their major problem is with reading and writing. There are many communication aids for the visually disabled. It is important to learn the use of these communication aids effectively. The professional workers have to determine what kinds of communication aids are best suited for the individual need.

1) Comprehending listening and speaking skills

The visually disabled cannot get a feel for the speaker's thoughts through facial expressions and gestures, but it is important that they learn to express their feelings through nonverbal cues during a conversation. It is especially very difficult to identify the speaker in a group setting, this type of situation requires the skills that are necessary to listen.

2) Braille

Braille, which is a punctiform system based on a "cell" composed of six dots, is one of the most popular forms of communication among the visually disabled all over the world. Mastering Braille is very difficult, especially for the adventitious visually disabled because it requires a great deal of time and patience.

3) The use of tape recorders

The use of tape recorders is also a good communication aid , especially for the visually disabled who are not able to use Braille. Tape recorders are used effectively in an educational environment and when the telephone is used.

4) Handwriting

The visually disabled must learn to write printed letters in order to communicate with their sighted peers. Simple aids, such as a signature guide makes it easier for them to write regular letters.

5) The use of word processors (typewriters) and computers

These days there are many adapted devices for the visually disabled such as typewriters and computers that are voice activated and/or enlarged. With some devices, the visually disabled can input Braille and output printed letters or vice versa. The use of the Internet is one of the great tools for obtaining information for the visually disabled and E-mail can be used for personal communication. The operation of a computer itself is becoming simpler and many new features for the visually disabled are being developed all the time.

5-3-4 Low vision training

Low vision training is aimed to maximize the residual vision effectively for independent living. The initial low vision evaluation is the important factor for providing the training.

(1) Near vision

Near vision training is provided mainly for reading and writing tasks. People are trained in the selection and use of low vision optical aids (magnifiers, loupes, reading glasses, CCTV) and other low vision aids. Visual training includes eye-hand coordination, tracking, tracing, eccentric viewing, localizing, etc.

(2) Intermediate Vision

The working distance for intermediate vision is approximately the length from the wrist to the shoulder while the working distance for near vision is about 30cm. This training provides the skills necessary to solve the problems of daily living tasks (ex: cooking and sewing). This training also provides the understanding of the lighting condition, contrast and the ability to avoid clutter in order to improve the external environment.

(3) Distance vision

This training is provided to improve mainly the orientation and mobility skills. The use of monocular low vision aids assists in detecting traffic lights, reducing glare, and night travel skills can be performed.

5-3-5 Recreational activities

Recreation activities are vital in order for the physically disabled to secure personal independence. The adventitious visually disabled, in particular, tend to be negative (passive) about participating in any kinds of activity. However, there are many activities that are available to the visually disabled if the rules and equipment are modified. The following are examples of these activities: card games, chess, shogi (Japanese chess), volleyball, table tennis, and golf.

5-3-6 Obtaining information and culture

Understanding how to obtain social resource for living and acquiring updated

information on administrative systems and public relations are required for the visually disabled to be independent. Some of the information that the visually disabled should have is: the definition of legal blindness, living conditions and working conditions, The role of social welfare administrations and rehabilitation counseling offices, the granting of identification booklets to the physically handicapped and its approval, medical rehabilitation services for the adult handicapped, the legal welfare measures, rehabilitation funds, employment insurance, self- payment and public assistance, rehabilitation training fees, occasional temporary aid, employment support funds, guide dog fees, the use of community facilities, volunteer services and much more.

6 The educational system for the rehabilitation workers for the visually disabled

Learning mobility skills, daily living skills, communication skills and recreation activities effectively in the process of rehabilitation is essential for the visually disabled. The professional workers should have a good understanding of the visually disabled. This requires a high degree of knowledge and professional techniques of high quality. Ideally speaking, these specialists should be appropriately positioned all over Japan.

6-1 The educational goal of the rehabilitation workers for the visually disabled

The rehabilitation workers have the responsibility of providing services such as orientation and mobility training, daily living training, communication skills training, recreation and activity services, low vision training, skills to obtain information based on the living situation. These rehabilitation workers must work as a member of a team related to the visually disabled , such as, the ophthalmologist, nurses, social workers, home care aides (assistance at home; semiprofessional job), and other staff when necessary.

Therefore , the educational goals of the rehabilitation works for the visually disabled are:

1) To develop the humanity and refine the ethics as a rehabilitation worker
2) To master the knowledge and techniques as a rehabilitation worker for training the visually disabled

3) To understand the theory of teamwork, its approach and practical use, to master the professional knowledge and technique to be able to perform effectively.

4) To develop the ability to research professional knowledge and techniques

6-2 Method of education for the rehabilitation workers of the visually disabled

To enter the course, the required minimum academic background is a B.A. and an entrance examination is held once a year to determine if the applicant has the potential ability and compassion to be a rehabilitation worker. This is a one year program. The subjects are categorized as basic subjects, professional subjects, practicum, special lectures, internship, and independent research. The uniqueness of this program is that, after the basic study there are simulation exercises using eyemasks and low vision simulation goggles. Along with the simulation exercises there are instructional programs. Internship is required under the supervision of someone who has been working as a rehabilitation worker for a long time..

6-3 The curriculum of education for professional workers for the visually disabled

The curriculum for the educational goals is as shown below.

Table 3 Curriculum

Subject	Categories	Classes	No. of Hrs.
Basic Subjects	General rehabilitation	Introduction to rehabilitation	12hrs
		Introduction to rehabilitation for the visually.disabled	24hrs
	Psychology	Cognitive Psychology	30hrs
		Educational Psychology	12hrs
		Developmental Psychology	16hrs
		Visual Psychology	16hrs
	Medical Field	Sensory physiology	58hrs
		Anatomy of the eye and its function	84hrs
		Kineology	22hrs
		Gerontology (diseases related to aging)	8hrs
		Diabetes (internal medicine)	4hrs
	Education	Early education for visually disabled (infants)	20hrs
		Education for the visually disabled (school age)	44hrs
	Social welfare	Introduction to social welfare	10hrs
	Research	Research methods of rehabilitation for visually disabled	24hrs
		Statistics for rehabilitation of the visually disabled	24hrs
Special Subjects	Fundamentals	Rehabilitation for the visually disabled 1 (ophthalmology)	32hrs
		Rehabilitation for the visually disabled 2 (psychology for the visually disabled)	12hrs
		Rehabilitation for the visually disabled 3 (Definition and the cause of visual impairment)	20hrs
		Rehabilitation for the visually disabled 4 (Theory of kinetic control for the visually disabled)	16hrs
		Rehabilitation for the visually disabled 5 (Theory of learning process of information management for the visually disabled)	42hrs
		Rehabilitation for the visually disabled 6 (Senior citizens with visual impairment and a population with multiple disabilities)	36hrs
	Training theory and teaching methods	Theory and teaching methods for orientation & mobility	118hrs
		Theory and teaching methods for daily living skills	52hrs
		Theory and teaching methods for communication skills	60hrs
		Theory and teaching methods for recreational activities	14hrs
		Basic knowledge of social interactive information for the visually disabled	12hrs
		Theory and teaching methods of low vision training	24hrs

Practicum	Practicum	Orientation and mobility	170hrs
		Communication skills	42hrs
		Daily living skills	84 hrs
		Low vision training	20hrs
		Recreation and activities	15hrs
Special Lectures	special lectures	special lecture 1 (Planning training and evaluation methods)	8hrs
		special lecture 2 (Practicum of sensory training)	6hrs
		special lecture 3 (Low vision training)	16hrs
		special lecture 4 (Optics)	32hrs
		special lecture 5 (Introduction to personal computers)	16hrs
		special lecture 6 (Various problems of orientation and mobility)	8hrs
		special lecture 7 (Rehabilitation for the diabetic visually disabled)	8hrs
		special lecture 8 (Personal computer skills for the visually disabled)	20hrs
		special lecture 9 (Rehabilitation for multiple disabilities)	20hrs
		special lecture 10 (Civil rights of the disabled)	6hrs
		special lecture 11 (Guide dog training)	8hrs
		special lecture 12 (The role of the Japanese Braille library)	6hrs
		Visiting facility (Guide dog training center)	24hrs
	Visiting facilities		
		Visiting facility (School for the Blind)	10hrs
		Visiting facility (Japanese Braille Library)	10hrs
Internship	Internship	Internship	365hrs
Independent Research	Independent Research	Guidance for writing research paper	70hrs
Total hours of required subjects			**1807hrs**

7. Governmental social welfare measures for the visually disabled

The government implements a variety of the measures for the visually disabled

7-1. The pension system

When a person who is a member of the public pension system becomes disabled, the pension is paid then paid as a pension or in a lump sum payment based on the degree of the impairment.

7-2. The Tax system

The disabled has the benefit to be exempt or have taxes reduced based on the degree of the impairment.

7-3. Miscellaneous

The following are examples of benefits for disabled:

Japan Railroads discount fare, discounted airfare, discount of toll fees, free NHK (public) broadcasting, free postage for Braille postal items, discount postage on parcel post, free NTT directory assistance, loan for living welfare funds, release of copyright restrictions, installment payment plan for installing telephones, priority admission to public housing, preferential treatment for loans for housing allowance, absentee ballot voting, workmen's comp.

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