

Learning Resources for the Blind

By

C.O. Abosi

ABSTRACT

Basically, teaching aids for the blind fall into two distinct groups, those providing the basic tools of learning such as writing machines, arithmetic boards and allied instruments and those covering the broader and more flexible requirements of the teaching services for the blind. In this write-up, an attempt is made to examine some of the basic learning resources for the blind. Some of the problems inherent in the purchase, maintenance and the use of these equipments in Nigeria is highlighted, and finally an attempt is made to provide possible suggestions for solution of the problems.

INTRODUCTION

The aims and objective of education are the same for the blind children as for the sighted children even though procedures for attaining those goals are achieved by modification of instructional materials and special teaching procedures. No doubt, if visually, handicapped children were exposed only to the educational experiences and materials used with sighted children (which are approximately 85% visual), they would not achieve their educational goals. Special personal methods, materials and equipments must be employed, utilising the senses of hearing, touch, smell, residual vision and taste. Lowenfield (1973) has pointed out three principles to keep in mind in adapting procedures for the visually handicapped. They are:

1. *Concreteness:*

Educationally, blind child's knowledge is gained primarily through hearing and touch. But if the child is really to understand the surrounding world, it is necessary that he or she be presented with concrete objects that can be touched and manipulated. Through tactile

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observation of models of objects, the child can learn about their shape, size, weight, hardness, surface qualities and perhaps temperature.

2. *Unifying Experiences:*

Visual experience tends to unify knowledge in its totality. A child entering a bookstore, for example, will see the relationship of shelves and objects in space. A visually-handicapped child cannot obtain this unification unless teachers present him or her with the corresponding experience.

3. *Learning By Doing:*

For a blind child to learn about the environment, it is necessary to initiate self activity. A blind infant does not reach out for an object because it does not attract him or her. The infant must know of its existence by touch, smell or hearing. Reading and contact must be stimulated by deliberately introducing motivating like rattles for infants to reach for.

THE TEACHER AS LEARNING RESOURCE

The greatest learning resources that can be provided for the visually handicapped is an understanding teacher. It must be emphasized here that a knowledge of braille does not make a person a teacher of the visually handicapped children. An understanding teacher sees a handicapped child first as a child before considering his or her disabilities. The visually handicapped child must be his own term of reference.

The teacher, therefore, as a resource person must be able to:

- (1) Instruct the visually-handicapped pupils directly within the classroom and individually.
- (2) Obtain or prepare specialized learning materials.
- (3) Put reading assignments into braille, large print, or tape recorded form.
- (4) Interpret information on the child's visual problems and visual functioning to other educators and parents.
- (5) Suggest classroom and programme modification which may be advisable.

Typewriters are important in education of the blind. It forms a communication between the sighted or non braille readers and the blind.

Cubarithm Board:

This is a large plastics base board consisting of fifteen rows of twenty sockets each and a lighter plastic cube. Braille characters are written on the cube. The device is to aid the blind children to compute simple arithmetic problems.

Sewell Raised Drawing Kits:

This kit enables the blind to make direct embossed impressions during Geography and Mathematics lessons. The blind pupil draws on the sheet and embossed impression is formed. The Sewell enhances the teachers efficiency and reduces difficulty especially in integrated set-up.

The Abacus:

The Abacus is a simple instrument for performing rapid arithmetical calculations. It consists of plastic frame holding thirteen vertically arranged rods on which beads slide up and down. For convenience in calculating, the beam supporting the beads is marked with a raised dot at each rod position and a raised bar between every third rod. The bars serve to indicate the decimal points and other units of decimal measure.

Thermoform Machine:

This apparatus in some respects resembles a photostat machine except that the end product is three dimensional. Basically, a master copy e.g. a braille text, geometrical diagram or map is inserted in the machine and once it has warmed up sufficiently, chemically treated plastic paper (Brailon) is passed through the apparatus and on this, the master copy is reproduced in every detail.

The Thermoform Machine has now become an indispensable item in most educational systems for the blind. At secondary school level, its importance in the sciences, mathematics and geography is paramount. It has produced in teaching, a degree of flexibility which has dispensed with much of the laborious details and has given an opportunity for imagination and initiative in the classroom.

Mobility and Orientation Aids:

Mobility and Orientation training enables the blind to understand his environment and to move from one point to another within the environment. The mobility long cane, sonic guide, the guide dog, the laser cane, and of course the human guide have all been found to be useful aids in this direction.

Low Vision Aids:

There are a number of aids which could be used by the low vision students to enhance their learning. Among these are: Spectacle mounted telescopic lenses, Magnifiers, Scotch Jumbo writer, Braille watches, writing guide board, Talking clock.

The term low vision refers to individuals who have some vision that could be developed through structured programme, which could improve their little vision.

(i) The Spectacle-Mounted Telescopic Lenses:

This instrument is used for distant vision such as watching sports, or checking street name or house number along the street. The spectacle-mounted telescopic lenses can also be very useful for classroom work such as reading the blackboard or interpreting wall mounted illustrative materials.

Microscopic lenses can be used for close work particularly classroom work.

(ii) Magnifiers:

There are various forms of magnifiers and are available in the form of strong convex lenses. The various forms of magnifiers are:

i. *Spectacles:* This is a magnifier with unifocal, bifocal or trifocal lenses and can be used to correct specific eye defect.

The non-prescriptive magnifiers are of different sizes and shapes with a variety of frames either to stand over the material to be viewed or to be hand-held, head-mounted or worn as a pendant. They can be useful for examining print or small diagrams and objects for a short time.

Other magnifiers that have been found very useful are light magnifiers, standing magnifiers and lenses which have power of 5x and 8x.

Sniff Book:

Technology has now made it possible to produce story books for the blind which the blind can read and identify by smelling. The blind simply rubs on the diagram of the object and smell. Other aids for the visually handicapped are peg boards, Televisions, Radios, close circuit television, stainsby, Arithmetic and Algebra frames, Embossed maps, scotch braille writers, scotch jumbo writers, Audible balls. These are some of the numerous learning resources available to the teacher to choose from.

PROBLEMS

From the foregoing, it is apparent that special equipments are a sine-qua-non in the education of the blind. There are however, some factors which militate against the purchase, maintenance and use of special equipments in Nigeria.

Most of these equipments e.g. Perkin's Brailer, thermoform and laser cane to mention but a few, are very expensive to purchase. Even when they are available, the dearth of trained personnels to man as well as maintain them in case of any break down is equally problematic. Federal government's ban on the importation of foreign goods, irrespective of their nature, makes it difficult for these special equipments to be obtained in the right quantity and at the right time. Lack of knowledge about the manipulation, of these special equipments, and above all poverty among our blind people are also worth mentioning. There is also the problem of lack of technological know-how in Nigeria. We are unable to manufacture some of these equipments locally.

Considerable emphasis are laid on integration rather than what is best for individual child. This makes it difficult for each open education scheme to be well equipped.

Teachers are not well motivated and as such, the idea of resourcefulness does not exist. Inspectors of education who do not have adequate training are sometimes assigned to be incharge of special education. This has often led to faulty recommendation to the government in terms of purchases of resource materials.

SUGGESTED SOLUTIONS

The government should embark upon training of supportive personnels such as technicians who will man and maintain the equipments. To reduce the cost of training para-technicians over-seas, it is advisable for courses that border on the manipulation and maintenance of special equipments be introduced at the Federal Advance Teacher College, Oyo, The University of Ibadan or at the University of Jos.

Since the equipments are very expensive to purchase, it becomes necessary for the Federal Government to establish special workshops where they could be manufactured locally. Finally, as a means of reducing the high cost of these equipments, the ban on importation of essential commodities, including educational materials, and equipments, should be lifted forthwith.

Efforts should be geared towards what is best for the child. A child who is totally blind may have a great difficulty in open education set-up where the learning resources are not there. Children who are totally blind should receive their education in special schools where human and material resources are available.

Teachers should be motivated by sending them overseas for relevant courses and be paid accordingly on their return. Working with handicapped people is more of a humanitarian vocation than a lucrative vocation. It demands that teachers of the handicapped should be very resourceful.

CONCLUSION

Education of the visually handicapped is a team work which is very demanding on the part of the Government, the teachers, the parents, and the society at-large. The visually-handicapped children are what the community thinks they are. If they are encouraged and all learning resources provided for them, they would succeed and contribute their own quota in the general development of the Nation but where they are neglected, they would ever remain a problem to the society.

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Job Opportunities and Placement Problems for the Handicapped

By

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In many underdeveloped and developing countries of the world, both the government and the generality of the people are not convinced that educating a disabled person is a good investment in human resources. They argue, rather one-sidedly, that a large proportion of their people are illiterates who must be trained and placed in gainful employments before attention can be given to disabled people many of whom cannot hold competitive employments even with the best of training in the world.

A few years ago the situation was so serious that an exasperated principal of a deaf school in Lagos declared: "The placement of deaf children after completion of their training is creating a very big problem. Most firms and government establishments have been very hesitant to employ tongue-tied elements that have been sent to them for employment. It is extremely difficult to find jobs for girls. This is very discouraging to both the teachers and the poor handicapped children. The boys are trained together with normal children for three years... and pass the same trade test. These children are capable of doing the work for which they have been trained, but the employing agencies still feel they cannot be useful citizens. It is therefore important to stress that unless the society in which deaf children exist is prepared to tolerate and appreciate their little achievement, the objective of educating them would be lost."¹

Around the same period, another lady, equally dedicated to the cause of handicapped young people, Mrs Dupe Oshin, the then Executive Secretary of the Federal Nigerian Society for the Blind lamented: "There are a few organizations mostly voluntary who try to rescue our handicapped brothers and sisters from the disgrace of permanent dependence by training them for job performance and for placement, but their joys are shortlived when it is found that handicapped people who have been trained at great cost in money, time, and by dint of obstinate human patience and endurance ... can only waste away because there is no opportunity to use their training in employment... even when there are many avenues of use, the handicapped and those who help them to get jobs find themselves up against an insurmountable mountain of ignorance and prejudice from employers"²

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In a survey of employment opportunities for deaf primary school leavers in Oyo State carried out by Babalola (1980), she noted that although many of the employers claimed that they were ready to offer deaf primary school-leavers work in the companies, only a few were sincerely ready to offer them work. Many would want to employ them as a novelty — just to have some experience of a deaf person at work and “would like to send (them) out of work immediately” as soon as signs of misunderstanding and inefficiency became noticeable. Not many would like to treat the deaf as they treat hearing peers because of the notion about the handicapping condition of the deaf³

In another study of employment opportunities for the blind by Agwa (1980) it was found that many employers of labour regard the blind as “helpless and unable to perform any job. ... Some employers of labour would rather give a large sum of money to an individual blind person or organization sponsoring the blind job-seeker than give the blindman a job.”⁴

Employers' prejudice against disabled people is world-wide. Even in civilized and technologically advanced United States of America, McGowan and Porter (1967) were forced to observe that: “Evidence would tend to indicate that many employers have an aversion to employing the disabled, as they believe them less effective and more accident-prone. Some employers seem to have either a conscious or unconscious abhorrence of physical disability, fear rise in insurance rates and a disturbance in their pension systems if they hire the disabled”.⁵

Education of the handicapped is justified on the ground that in any democratic society every member should have a right to an education commensurate with his ability and capacity in order to enhance his opportunities to earn a living, and to some extent, be self-supporting. Education and rehabilitation of disabled members of our society enhance their opportunities to live an independent and satisfying life. We all know that a severely disabled person imposes a great burden on members of his family unless he lives by begging for alms in the streets and market places. Apart from the burden of supporting materially the disabled member of the family, the whole family suffers from psychological strains, acute anxiety, guilt feelings, suppressed anger and unrelieving sense of frustration at having to care for the disabled member indefinitely.

Mba (1975) observed: "The attainment of adulthood in any society is equated with the achievement of self-sufficiency and independence. Unaided, the disabled individual attains adulthood and sometimes, old age, without any prospect of achieving independence or self-sufficiency. It is by no means easy for an average able-bodied Nigerian to achieve self-sufficiency in our society today. It is difficult, twice over, for an illiterate or semi-illiterate disabled Nigerian, even without the dark cloud of public prejudice under which, more often than not, he is forced to pass his whole existence".⁶

In contrast, when a disabled individual has been successfully rehabilitated in the sense that he has been well educated and/or vocationally trained and placed in a job or helped to be self employed, everyone gains. The disabled person is not only able to support himself but also members of his immediate and extended family. He pays his taxes and contributes his skills and know-how to the development of his society and country. Great as these benefits are, they are little when compared to the indescribable feeling of relief and satisfaction which comes to the family of the disabled person. These benefits are nothing when compared to the sense of independence, feeling of worth and self-respect which the disabled individual gains. Merton (1959) was keenly aware of this situation when he wrote: "The status of independence is self-sufficiency, hardwork, industriousness, contribution to society and upward social mobility of the individual. To the extent that the handicapped individual is unable to reach these goals, he suffers a loss of personal dignity, prestige, both as a member of society and as a member of a family."⁷

THE DISABLED WORKERS

Speaking of disabled workers generally, what kind of employees are they? How do they perform on the job? How do they relate to their employers and co-workers? In a study of deaf school-leavers at work and their employers involving Oyo, Kwara and Lagos States, Afolabi (1979)⁸ found that:

- (a) Fifty-nine percent of the employers sampled believed that the hearing problem of their deaf workers did not hinder the deaf in understanding and carrying out instructions,
- (b) All the employers agreed that the deaf worker is always present at work, and 95% of them confirmed that the deaf worker is always punctual. Another 95% maintained that deaf workers obey the company's rules and regulations.

- (c) Ninety percent rated deaf workers highly as being able to adjust to new demands and developments in their companies, and all employers sampled testified to the fact that deaf workers are rarely involved in police case. While only 25% thought that the deaf workers react violently to criticisms, 75% of the employers thought otherwise.

In another study, Aderinboye (1980) noted that in the private sector in Nigeria where the emphasis is on maximizing profits, and all employees are expected to work hard or face termination, employed blind workers still hold their own and many private employers opt for them.

To avoid generalization, it should be appreciated that the type and degree of disability or handicap may be expected to limit the types and complexity of work a disabled individual may be expected to do. Some severely disabled people are only capable of work in sheltered employments.

EMPLOYMENT OF THE DISABLED: RANGE OF POSSIBILITIES

In many countries, employment of disabled persons is usually handled in conjunction with employers' and workers' organization in order to ensure that all available opportunities are utilized to secure the most suitable employment for the disabled person. Measures taken in these civilized countries are governed by certain basic principles laid down by the International Labour Office:

1. The disabled should be given equal opportunity with the able-bodied to perform work for which they are qualified by training or experience.
2. Disabled individuals should have the same opportunity as the non-disabled of accepting suitable work with employers of their own choice.
3. Emphasis is placed on the abilities and work capacities of disabled persons and not on their disabilities.¹⁰

Current trends, demands that "The range of work for the disabled should follow the same range as for the able-bodied" In other words, if the sky is the limit of opportunities for the non-disabled, the ceiling or the roof should not be made the limit for the disabled

This might seem unrealistic to some people, but we never know what a disabled person is able to do or cannot do until he is given an opportunity to try. Many University Authorities a few years ago, for example, would have rejected the idea of accepting a totally blind youngman to study mathematics as his major subject for the B.Sc Honours examination. But because the University of Nigeria, Nsukka, decided to give Mr. Christopher Aniegbuna an opportunity to try, Nigeria can now boast of a blind Mathematician in the person of Aniegbuna who received his degree with Second Class honours. What is even more encouraging is the decision of Mr. Aniegbuna to be a teacher of Mathematics to sighted students at a top-notch institution like Christ the Kings College, Onitsha.

It follows therefore that the range of work for the disabled should be the same as for the able-bodied and this usually includes:

1. Competitive employment in factories, offices, institutions, shops, in the professions, in the government etc.
2. Self-employment in the form of independent concerns.
3. Handcraft work including cooperatives. Added to these three groups is a fourth, specifically for the severely handicapped.
4. Sheltered employment which is provided for those who are so severely disabled that they are rendered unfit for open or ordinary employment. Sheltered employment usually provides restorative services such as: medical supervision, social services, evaluation and adjustment, vocational guidance, vocational training, vocational supervision and graded employment.¹¹

VOCATIONAL REHABILITATION OF THE DISABLED IN NIGERIA: THE STAGE OF THE FIELD

Placement of the disabled (or handicapped) is usually one of the many services which a comprehensive vocational rehabilitation programme provides for disabled persons in the developed countries. Vocational rehabilitation is defined as a process of restoring a handicapped person to the maximum usefulness of which he is capable: physically, mentally and vocationally (Mba, 1975).

Since 1974, there has been an insistent voice of one in the wilderness" crying and stressing that what is needed to combat employers' prejudice and rehabilitate our beggars is a Federal Ministry of Rehabilitation, with State counterparts and local rehabilitation agencies, all equipped and staffed with teams of trained vocational counsellors, placement officers and research workers, and working in conjunction with community organizations and self-help groups to plan and carry out projects directed at:

1. Locating handicapped persons in the community and determining the extent of their disabilities and the kind of assistance which they need.
2. Surveying establishments to compile a dossier of jobs and to encourage employers to offer jobs to handicapped persons.
3. Sponsoring handicapped persons for training for specific jobs known to be available on a regular basis. Employers, may also be encouraged to organize in-service and on-the-job training.
4. Involving handicapped people in community projects, local festivities and recreational programmes in order to develop in the community better attitudes, and in the handicapped, a sense of belonging.
5. Organizing demonstrations, exhibitions, contests, lectures, social gatherings which could require some performance by both handicapped and the able-bodied persons.

Again, the vocational counsellors, assessment and placement officers in each State and local government areas would be routinely involved in:

1. Gathering, analyzing and evaluating information on handicapped people within the locality.
2. Providing regular counselling and guidance service for disabled people and their families until the former are gainfully employed.
3. Arranging for transportation and payment of maintenance allowances to handicapped people undergoing rehabilitation.

4. Procuring tools, licences, initial stock and supplies for trained disabled persons who wish to set up independent businesses of their own.
5. Gathering and utilizing information on employment possibilities, job-trends, community services and facilities to maximize placements.
6. Providing sheltered workshop facilities for those so severely disabled that they cannot maintain open employment.
7. Finding suitable jobs for disabled persons who have had or do not need vocational training, and providing follow-up, counselling and guidance services.¹³

In short, the type of national rehabilitation service we envisage, and which I think Nigeria needs, is what McGowan and Porter had in mind when they wrote:

"The rehabilitation process is a planned, orderly sequence of service related to the total needs of the handicapped. It is a process built around both the problems of a handicapped individual and the attempts of a vocational rehabilitation counsellor to help solve these problems, thus, to bring about the vocational adjustment of the handicapped person."¹⁴

The International Year of Disabled Person should give a sense of urgency and also impart to our government a sense of direction to get down to the grassroots and tackle the problems of Nigeria's disabled population, estimated at more than 8 million. The National Committee on the I.Y.D.P. and the National Council for the Rehabilitation of the Disabled, has had discussion along these lines. But whether this will lead to definite actions that will ripen into benefits remains to be seen. Some thought is being given to such provisions as: legislative measures to protect the handicapped and provide jobs, vocational guidance and counselling, disability preventive measures, quota system of employment, national assistance scheme, prohibition of street-begging etc. I am certain that your focus in this conference will add needed impetus to what is being done. God bless you.

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