

EDUCATIONAL PACKAGE ON FUNCTIONAL CLOTHING FOR DISABLED

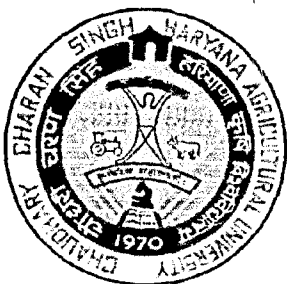
By

SALONI

2000HS201M

*Thesis submitted to CCS Haryana Agricultural University in
partial fulfilment of the requirements for the degree of :*

MASTER OF SCIENCE IN CLOTHING & TEXTILES



**DEPARTMENT OF CLOTHING AND TEXTILES
I.C. COLLEGE OF HOME SCIENCE
CCS HARYANA AGRICULTURAL UNIVERSITY
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Dedicated

To

My Family

And

Well Wishers

CERTIFICATE-I

This is to certify that this dissertation entitled, "**Educational package on functional clothing for disabled**", submitted for the degree of **Master of Science**, in the subject of **Clothing and Textiles** to the CCS Haryana Agricultural University, is a bonafide research work carried out by **Saloni** under my supervision and that no part of this dissertation has been submitted for any other degree.

The assistance and help received during the course of investigation have been fully acknowledged.



MAJOR ADVISOR

CERTIFICATE-II

This is to certify that this dissertation entitled, "**Educational package on functional clothing for disabled**", submitted by **Saloni** to the CCS Haryana Agricultural University in partial fulfilment of the requirements for the degree of **Master of Science**, in the subject of **Clothing and Textiles**, has been approved by the Student's Advisory Committee after an oral examination on the same.

Neels
17/7/03.

MAJOR ADVISOR

Saloni
17/7/03.

HEAD OF THE DEPARTMENT

Neelam
21/7

DEAN, POST-GRADUATE STUDIES

Acknowledgement

Above all I bow my head before him, the almighty god is truly honoured, with his mercy and blessings, this piece of work is the result. Now that I am privileged in completing my thesis and reaching yet another milestones of my academic journey. It's my duty to acknowledge all those who are instrumental in leading me to this accomplishment.

I express my indebtedness and inestimable gratitude to my esteemed major advisor Dr. (Mrs.) Neelam Pruthi, Scientist, Deptt. of Clothing & Textiles for the invaluable assistance provided from her own wide experience, I earnestly thanks her for excellent guidance, inspiring encouragement and constructive criticism during the course of investigation and preparation of this manuscript.

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Date : 17 May, 2003

Place : Hisar

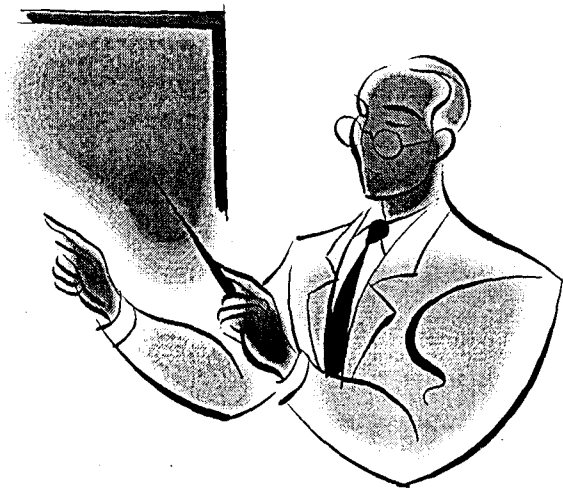
Saloni
(SALONI)

Contents

CHAPTER	DESCRIPTION	PAGE NO.
I	INTRODUCTION	1-4
II	REVIEW OF LITERATURE	5-23
III	METHODOLOGY	24-33
IV	RESULTS AND DISCUSSION	34-91
V	SUMMARY AND CONCLUSIONS	92-96
	BIBLIOGRAPHY	<i>i-viii</i>
	ANNEXURES	

List of Tables

Table No.	Description	Page No
1.	Evaluation of pamphlet-1	35
2.	Evaluation of pamphlet-2	38
3.	Evaluation of pamphlet-3	41
4.	Evaluation of pamphlet-4	43
5.	Evaluation of pamphlet-5	46
6.	Evaluation of pamphlet-6	48
7.	Evaluation of slides	51
8.	Evaluation of video film	74
9.	Level of effectiveness for pamphlets	88
10.	Level of effectiveness for slides	90
11.	Level of effectiveness for video film	90



Introduction

CHAPTER-I

Introduction

Clothing makes contribution to physical comfort, psychological well-being and social interaction of individuals. It influences a man socially and emotionally. A certain amount of confidence and security is obtained by the individual from an appropriate dress. Erwin and Kinchen (1964) has rightly remarked that *“the value of clothing in meeting certain human needs, physical protection and decoration has long been recognised”*. Clothing is most powerful form of non-verbal communication which is vital in developing social relationship and it can contribute the need for self-acceptance and self-expression. Today the concept of clothes has widened including psychological and sociological factors.

Physical needs of the disabled are different from normal human beings, because of their physical limitations hence specially designed garments can play an important role because their clothing requirements are different from normal human beings.

Sociological and psychological aspect of clothing are even more important for the disabled persons because their appearance deviates from

the normal ones. Saidydain (1957) has remarked that “*the handicapped often suffer from perceptible defects of the body and movements which tend to set them apart in a class by itself due to which they are not expected or encouraged to take full part in social life*”. So they need appropriate and attractive clothing that can help them to develop higher self-concept by giving them confidence in their appearance.

To cope-up their physical limitation they generally use orthotic and prosthetic aids which influences their garment style, construction and fabric selection. These assistive devices place stress on clothing and modify the body's size, shape and posture. Easily removable and wearable garments are essential for people with physical limitations as it is necessary that clothing should not restrict their physical and mental activities and provide them independence. Such clothing is called functional clothing “*These are designed to promote self-dressing, camouflage the deformity of the handicaps to improve their ability to maintain physical activities and allow them to be self-sufficient*” (Park, 1989).

A lot of information has been generated on functional clothing for the disabled but this is primarily available to the professionals only. The disabled, their care-takers and even most of the rehabilitating organisations are not aware of the existence of functional clothing. Which is also one of the rehabilitation tool for the disabled. It is well know fact that merely developing suitable garment designs would not be of any use untill and unless information regarding functional garments passed on effectively to the target group (Pruthi, 2000). To make the disabled and their caretakers

aware about the special clothing, it is very important to disseminate the information and for this purpose basic modes of communications identified are written material, audio-visual aids etc. Generation of information is important but equally important is its transfer to the target group. To communicate with the masses it is important to identify crucial messages, treat the message suitably and to find out effective medium of instruction.

Printed material has been relied on as primary source of information for speech content. Print media enjoys high credibility, prestige and preference, convincing and motivating power. This media conveys information quickly, cheaply and simultaneously where reader can read at leisure, at his own pace and also referred as and when needed (Batra and Grover, 1993).

For the past few years, electronic media have been gaining greater importance. The swift changes in technological development have necessitated everyone to switch over to new techniques. Audio-visual aids are easily adaptable and proves to be an effective medium in information dissemination. Events can be captured in film and are easily available as source of information for the viewers and source of material for speaker. Video is a latest such tool that has cast its spell over development activities, beside providing entertainment, of course.

On the basis of some previous research conducted on clothing for disabled it was found that special features incorporated in the garments were found suitable and acceptable by the group of disabled and their care

takers. It was felt by the researcher that the information regarding functional garments should be widely spread over large number of disabled and their care-takers. Keeping this in mind, efforts have been made to prepare an educational package. The present study was conducted with the following objectives:

1. To prepare an educational package on functional garments for disabled.
2. To assess the effectiveness of prepared educational package.



Review of Literature

CHAPTER-II

Review of Literature

A brief resume of past researchers, relevant to the present study have been incorporated in this chapter. The pertinent literature have been reviewed under the following subheads :

- 2.1 Role of functional clothes
- 2.2 Dissemination of information
- 2.3 Role of media in educating people

Special features added to garments which serves as functional designs provides ease, comfort and satisfaction to the wearer. In case of handicapped persons to accommodate the disability, the garments made with special plackets, suitable fasteners, reinforcements, elastic support etc. add a significance. Many research has been conducted in this direction. A brief resume of their work is as follows :

2.1 ROLE OF FUNCTIONAL GARMENTS

Tavawala (1982) identified handicapped children having different disabilities and selected seven children for designing garments according to their specific needs. Adaptation were found satisfactory and useful to

make children independent in dressing. She recommended full front opening or enlarged opening for easy dressing, simple fasteners with minimum number or no fasteners, use of elastic at waist instead of string or belt, elastic cufflinks, placket along leg seam of trousers for braces users, reinforcement at the point of maximum wear and tape loops were sewn in garment in different position to aid in dressing.

Dallas and White (1982) suggested that conventional zipper with large teeth with a ring pull tab and a convex button with shank were easy to manipulate by the persons who have physical disability.

Miller and Franklin (1982) revealed that physical appearance variables were found to influence clothing. They studied the impact of physical impairment and clothing on impression formation.

Demarest (1984) offer idea for wheel chair users. He provided grooming aids and clothing that are fit for disabled using wheel chair for mobility. Hipline suits, jackets and pants were recommended. He suggested to make pants, legs 3" longer than usual pants as it prevents rising while sitting.

Klinger and Strebel (1984) designed special and comfortable clothing for wheel chair users to replace the conventional clothes. Men and Women found upper garments more comfortable if they were cut to the hip line. Pants were made 3" longer than usual, prevented short cut appearance in seated posture. To make the garments more functional for wheel chair users back pockets were replaced by side or leg pockets. Women preferred pants

with elastics and without pockets. Warp around garment which look like skirt with full length was recommended.

Khanna (1984) conducted a study on female orthopaedic patients with a fracture of left upper limb and designed functional *kurtas*. The information was obtained from the patients and the doctors regarding clothing related problems encountered by the patients. Keeping in view the problems, fifty designs were sketched, out of them ten were finally constructed. Designed *kurtas* were found comfortable and proved to be a boon during recovery time.

Rosenblad and Karlsson (1986) noticed non-availability of appropriate clothing styles for persons suffering from parkinson's diseases, hemiplegia or hemipares (weakening of one side) which occur due to nervous system disorders. They found that 65% of men and 72% of women needed help while dressing and undressing, flat and open garments were suggested for bed-bound patients. Use of soft, warm and elastic materials were recommended by parents and nurses. Recommendations for fabric, styles and design details were made.

Jaipuria (1987) conducted a study on 100 orthopedically handicapped who encountered problems related to clothing and difficulties in using readymade garments. He suggested garments designs for poliomyelitis patients. Design for trouser with placket along outer leg seam on both sides fastened with velcro pieces and trouser hook. Saree, peticoat, blouse and skirts were designed for women having similar kind of disability. These

garments could be dressed while in sitting or lying position. Pain caused while wearing ordinary constructed garments was reduced by these garments.

Warner (1988) suggested loose fitted garments for disabled children to meet their dress requirements. The garments were made with wide sleeves and elastic waist bands. For easy pulling overlap fly was made which was fastened with velcro tape or zipper having loop or knob. Large buttons with big button holes/cloth loop were found to be suitable. Tube socks with heel were recommended, to make the garments easy wide sleeves with elastic waist bands, placket overlaps fly fastened with velcro tapes or zipper with loops for easy upward pulling were recommended. Large buttons were found easily manipulated by disabled children. These functional features proved helpful while putting and taking off garments.

Ratna (1988) conducted study on lower limb disabled and upper limb disabled in view of the need for specially designed clothing to improve disabled people comfort and to make them confident for their better future. The design garments with special features met the requirements for comfort, convenience for wearing, camouflaging deformities and to avoid abrasion due to assisted devices used such as crutches.

Park (1989) studied the problems of women using wheel chairs. The main objective of his study was to enhance the comfort and function of garments for individuals with (arthritis). He recommended raglan sleeves or large armholes, front opening, large button, zipper or pressure tapes and action pleates.

Mann (1991) suggested self-help features in garments for physically handicapped boys. The study recommended loose fit garments with half front placket opening to provide ease in dressing and undressing. Use of metallic studs, zipper, velcro tapes, raised buttons with loose loops used as fasteners were found appropriate. However garment with full elasticated waist having fly opening fastened with zipper or velcro tape were recommended.

Yadav (1991) conducted study on self help features in garments for physically handicapped girls. The study recommended centre front full opening or half opening with big press buttons, velcro tapes and zipper as fastner. Lower garments with elasticated waist and salwar pauncha without placket were most suitable.

Aggarwal (1993) recommended specially designed garments for orthopedically handicapped males. She recommended pant for persons using artificial leg. Opening in pauncha fastened with zippers or studs provided ease while putting on and taking off the pants. To reduce the dependency of upper limb amputees, use of velcro tape / studs, zippers instead of button holes, permanently folded cuffs or partially elasticated cuffs, elastic at waist level for easy tucking and elastic at waist in lower garments were recommended.

Rashmi (1993) conducted a study on poliomyelitis women having problem on one side and advised to wear loose kameez with half centre front placket fastened with zipper or velcro tape, elastic at waist and opening at pauncha fastened with velcro tape. Flexibility provided in blouse with

elastic, smoking or shirring and pre-set pleated saree designed for arthritic woman made them independent in dressing. For poliomyelitis lady who crawled, it was suggested to have kameez with back till sitting length and front longer than back to avoid soiling and wear-tear. Recommendation made for callipers users were : thin length pauncha placket fastened with zipper in salwar or double layered salwar to conceal the callipers, lining in salwar or hoses under the callipers to avoid pinching of callipers.

Brat (1994) recommended garment designs for children with problems in their arms due to polio. Garments were designed with full centre front placket and opening at sleeve fastened with velcro tape for ease in dressing and undressing, rubber bands for cuffs, big patch pockets with flaps for keeping belongings, elastic at back of trouser and cloth loop for zipper and trouser belt for pulling them up.

Padding of foam at inner armpit level in shirt to avoid pain created by crutches, elastic at back waist and zipper at the side seam in trouser for ease in dressing/undressing.

Jain (1996) designed and constructed garment for orthopaedic patients with plaster of external fixator to reduce the time, fatigue and dependence on others while dressing undressing. The designed garments were evaluated by patients, doctors as well as nurses. She incorporated self-help features in the garments like special opening, easy to manipulate fasteners, these garments were simple to cut and stitch.

Ganguly (1999) designed garments for the physically and mentally challenged to make them independent. The constructed garments were tried and evaluated on disabled. Parents reported that garments and accessories were very useful as disabled could work without much help and their self-image got boosted. Helmet, drooling bib, harness and bathing gloves were extremely helpful in meeting various disability needs. To increase acceptability fabrics with attractive colours and prints were selected.

Pruthi (2000) conducted study on two hundred respondents. Majority of them were victims of poliomyelitis and were using callipers and crutches. Clothing related problems encountered by them were identified by interview and observation. Functional garments were constructed with the requisite constructional features to overcome the problems. After trials it was found that small armholes prevented rising of upper garments and bunching under the armpit, reinforcement at armpit level with a layer of fabric increased serviceability of garments, reinforcement done along the yoke or panel seam made it inconspicuous. Foam padded covers for head and handles of crutches prevented frequent wear and tear and also provided comfortability under the armpit. To provide ease in slipping the legs and wearing callipers under garments, the pauncha placket were made which was fastened with zippers, knee drop lock could be operated easily due to knee level plackets. Reinforcement at knee level and lining at thigh level prevented frequent wear and tear at knee and thigh level underwear also protected the garment from frequent wear and tear at thigh level.

Singh *et al.* (2001) conducted study on 300 physically handicapped respondents, few of them had temporary disability due to fracture and most of them had fracture in their lower limbs. The problems encountered by males with upper fractured limbs were : wearing garments over fractured arm due to plaster, slipping garments over head, manipulation of placket and cuff fastners, tucking of shirt, fastening/unfastening of pant's belt, fly's zipper and tying/untying of string of *pyjama*.

The problem faced by female respondents were : wearing garments over fractured arm, slipping garments over head, manipulation of placket fastners, tying and untying of string, setting of sarees. Other problems faced were : string used to support the fractured upper limb caused rashes at back neck, plaster became dirty and shedding of plaster powder.

2.2 DISSEMINATION OF INFORMATION

Koester and Leber (1984) surveyed orthopaedically handicapped adults to determine that information they perceived to be available, which they used and which they preferred to receive about selection, adaptation and construction of clothing was obtained 80 per cent through their friends, television, radio, newspapers and family to acquire information.

Lamb (1984) focused to examine as to what extent the family used functional clothing, factors associated with family for using functional clothing and problems encountered by families in clothing of their children. The participating families were noted to be well integrated and highly adaptable. The article provided a list of idea for functional clothing for

body stiffness, limited range of motion, wheel chair confinement, braces users, drooling and limited vision. The author identified the need to provide network for mothers to seek assistance on creating and using functional designs.

Pruthi *et al.* (2001) determined that it is very important to disseminate the information to make research effective and useful. She conducted a study on two hundred respondents comprising of children using callipers and crutches, upper limb amputees, lower limb amputees, hemiplegics and paraplegics. She designed functional garments for them in accordance to the clothing related problems encountered by them. To disseminate the information regarding suitable functional garments to the target group, their construction and production was initiated. For that, a catalogue entitled 'Drafting's of Functional Garments' was prepared in English and Hindi. To impart technical know-how regarding stitching of functional garments, workshops were organised in two rehabilitating organisations running training-cum-production centers. The workshops were attended by instructors and the trainees of the centers including handicapped persons. The participants of the workshop opined that it was very useful for the handicapped. To create awareness among the handicapped as well as their care takers, the garments were exhibited in the institutes and the camps organised by the NGOs which were appreciated by the organisation, handicapped persons and their care takers.

Verma (2001) suggested that communication strategy is a plan or a design for changing human behaviour on a large scale basis through the

transfer of new ideas. The process of generating new technology through scientific research and its dissemination through extension agencies to the ultimate users i.e. women and children has to be viewed in its totality. Broadly the major systems involved are : Innovation Development System, Innovation Dissemination System and Innovation Utilization System. The effective performance and productivity of each of these system and their strong linkages will lead to better living and prosperity. The major functions of innovation development system is to conduct basic and applied research. This includes creation, production and development of new technology. Innovation dissemination system comprises of extension personnel. The functions include acquisition processing and communication, conducting training programmes and facilitating adoption.

Grover (2001) suggested that a strategy is a course of action designed to achieve desired results, fulfill objectives and goals and to make the information available to the target group. The strategies for dissemination of information on functional clothing and social integration of the handicapped should cover a wide spectrum of activities, communication medias, extension methods combined with elements of creativity and journalism. Designing clothing needs is one aspect while these clothes must be readily available to the customer to suit his pocket, be functional to use and have personal appeal. These should be close to normal clothing as possible so that a person feels that he is not different from others and is integrated socially on clothing front. Functional clothing for handicaps is a new area and holds vast scope for being readily acceptable both by customers and designers/tailors.

2.3 ROLE OF MEDIA IN EDUCATING PEOPLE

Khanna (1980) compared the three modes of presentation viz., straight talk, discussion and drama. He observed that there was no significant difference between gain in knowledge of the respondents to three different modes.

Gupta (1980) reported that village level workers had top preference for field trips followed by transistor sets for transferring agricultural technology of farmers. The least preferred ones were pamphlets, circular letters and folders, flash cards and exhibits scored only the fourth and fifth positions respectively.

Bhardwaj (1981) reported that printed material followed by group discussion was found to be more effective medium for communicating knowledge to the members of the Charcha Mandal and the least effective was tape-recorded message.

Sharma (1983) reported that multi-media method was better than the expository and programme learning method have got equal effectiveness.

Dubey and Bhanj (1984) reported that Videotape is seen as an ideal medium for promoting audio-visual literacy for motivation, attitudinal change, behaviour reinforcement, community participation and entertainment. This was successfully utilized by CENDIT (Centre for Development of Instructional Technology) in the villages of Uttar Pradesh known as the Saharanpur experiment. They reported the possibility of use

of video in humanizing the process of communication. Video equipment does not require sophisticated training to operate, can be easily handled and is portable enough.

They further observed the effectiveness of video in the experiment made by ISRO (Indian Space Research Organization, Ahemadabad) to produce programmes for the local television network on problems such as bonded labour, untouchability and other such evils and local development.

Alisan (1985) stated that using video as a training tool has increased the flow of information directly to the farmers. It captures the attention of the audience specially when the problem and the alternative are specific to the region. Video enhance training by visualizing a verbal message with motion and colour and standardized information.

Venkateswarlu (1985) pointed that video neither helped to improve the educational communication methods nor extended the boundaries of knowledge and experience. It was perceived as a vehicle for entertainment. The impact of video was most felt at village level.

Aggarwal (1987) studied that use of video provides flexibility, learning at convenience at a place desired by the learner and control over the medium.

Karande and Riswadkar (1987) pointed out that print media play a vital role in development and information communication.

Reddy and Rani (1987) reported that many experiments were conducted to use video as an educational tool and results were spectacular.

It was suggested that video technology which has high potentiality needs to be harnessed fully by the extension agencies for agricultural development.

Bessettee and Tighe (1988) reported that video can successfully be used for consolidation during the learning process, to present the subject of the training exercise, to demonstrate visually abstract ideas, to show how the skills acquired can be applied to different stages through which a task evolves, as a feed back mechanism for student learning and to modify the training programme so as to incorporate the suggestions of those trained and thus improve future applications.

Singh (1988) reported that video technology can play an important role in imparting training to the personnel attached to the institutions. To make it more meaningful current topic should be selected.

Singh and Kumar (1988) suggested that video technology presents numerous possibilities for alternative usage, to help in education, strengthen neighbourhood groups and communities and serve cultural and other minorities.

They opined that video being a simultaneous, monitoring instant feedback, high quality audio-visual recording system with large time frame and situational adaptability, its role in education, industry and home is very important. They further observed that small format video production is easy to handle, natural and projects minimal disturbance into situational dynamics of interpersonal relationship, thus, it can be looked at as a small, local or group community medium.

They concluded that video instead of being a luxury, can be used to effectively transfer new technologies which provided a motivated production team, trained extension personnel who know how to integrate video material with their teaching, production and playback equipment, production and duplication facilities, access to farmers and support from decision and policy makers are available.

Mukhopadhyay (1989) observed that very often communication for development aims at directing and controlling the activities of the target communities. Video, however, is an instrument of information and communication designed to enable communities to take their own decisions with regard to development, according to their own needs and to promote dialogue and the exchange of experiences.

Akhileshwari (1990) reported that the print medium has the advantage of credibility, especially among the educated, which other media lack. The printed word is held in high esteem and is trusted. Its impact is also, therefore, greater on people who matter.

She opined that video is yet another new medium. It has challenged the supremacy of TV both as a teacher and as a medium of education. Some industrial houses like Voltas and Glaxo have even dispensed with their in-house magazine and switched over to video magazines since they make greater impact.

Bhagat (1990) pointed out that the importance of mass media for extending education to the formally uneducated women assumes an

additional role in national development. It was further emphasized upon the well known fact that one communication source or channel could not be effective for all situations. However, exposure to the same idea through proper combination of suitable media and methods in a logical sequence increases communication efficiency.

Rajarithnamoni (1990) emphasized that the media educate the masses virtually play a role of a “friend, philosopher and guide”. Throughout the history, the various traditional modes of communication were used in enlightening the masses on various aspects of life. Now, because of power and potentiality of the mass media, they are being utilized for all educational and development purposes. Consequently, mass communication and education have become synonymous.

Singh and Kumar (1990) reported that video as a training tool has increased the flow of information and enhances training by visualizing a verbal message with motion and colour and standardized information from agricultural researches, technicians, extension workers and other technical people, directly to farmers.

Verma (1990) concluded that video was effective for imparting knowledge while the level of knowledge can be enhanced by having group discussion after the video exposure, or followed by some other such method.

Yadav *et al.* (1990) observed that due to the upward trend of literacy and changing tendency there is rise in the demand for printed material.

They concluded that readability of leaflets when tested for relationship with its component that are understandability and effectiveness found to be positively and significantly related with each other.

Achuthan (1991) observed that visual experiments and research have shown that 50 per cent of what we see and hear is remembered by us and it further revealed that 83 per cent of learning comes through sight.

Dikle *et al.* (1991) stated that the printed word has a lasting power beyond that of the spoken word or visual image. The readers can read print media at their leisure and can keep for future reference. Newspaper, farm magazines have large audience, which enable the materials to reach a large number of people at a time. It is low cost communication media.

Gajare *et al.* (1991) studied the effectiveness of communication media in the transfer of Drip Irrigation technology. They found that for transfer of technology video shows and slide shows may be utilized for effective communication.

Rao (1991) reported that the advantages of interactive video are long lasting and can serve many uses and information effectively.

Rana (1992) revealed that video has high impact and its advantages need to be given consideration as it holds potentiality of replacing the trainer once the message has been captured on the video. It is a cost effective media.

Reddy and Suryamani (1991) reported that printed material help to provide information quickly and economically and are therefore, useful as

teaching aids.

Kumar (1992) opined that printed advertisement is one of the most important mass media for transfer of technology.

Batra and Grover (1993) stated that the printed literature was read for a variety of reasons which include to gain in knowledge for recreation, to be equipped with latest information, serves as a good companion, better value for time, to be well versed, to advise others and appealing style of writing.

They opined that print media enjoys high credibility, prestige and preference, convincing and motivating power. This media conveys information quickly, cheaply and simultaneously where the reader can read at leisure, at his own pace and also refer as and when needed. They concluded that with rise in rural women literacy, reading of printed literature in rural areas will increase as women read the literature for varied reasons.

Singh (1993) indicated that a combination of media is the most effective way of reaching people with new ideas.

Nataraju and Perumal (1995) observed that the use of print media as compared to other media is more advantageous because of realistic and scientific information in simple language on a specific topic and generally illustrated with pictures which can reach to a large number of learners quickly and simultaneously.

Kumar (1995) opined that video can be effectively used in the present era of development efforts. Specific programmes for the identified target groups can be shown to motivate and arouse the beneficiaries. The various vista-vis of getting benefits from development departments can be shown through video.

He stated that small scale local productions narrating the felt needs and reality of the people, by the people and for the people is possible through video.

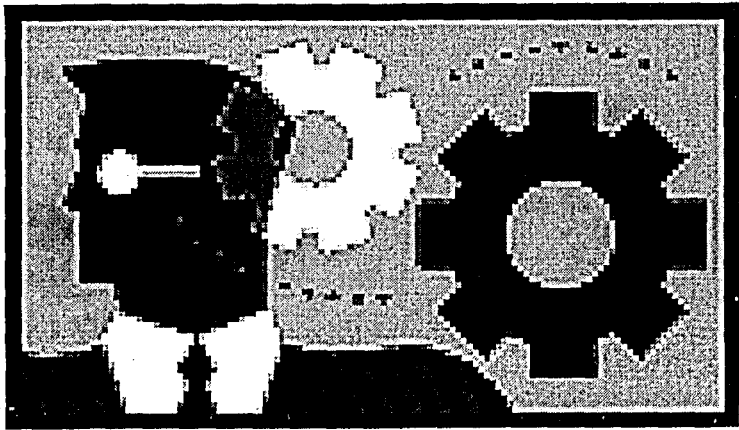
He concluded that video is at the intersection between education and animation, concentrations and agitation, cultural resistance and creativity. Video can be used for a variety of purposes to catalyse development at grass root level. There is indeed no other medium like video which offers ordinary people so much choice and therefore self ascertains and growth and so much collective knowledge and experience therefore learning the potential of video is limitless and innovative. It is up to us to utilize it effectively in our endeavors.

Shourie (1997) stated that the print medium is uniquely placed and oriented as a communicator because of its ability to reach specific audiences. Senior citizens always need their diet of reading.

Malaviya *et al.* (2001) suggested that communication plays a vital role in diffusion of knowledge and new technologies. Considering the constraints of handicapped it would be most appropriate to use audio-visual

aids to provide them with situation near to reality so that they can get the idea readily in reality.

Above mentioned studies reveal that media in various forms-print, electronic and unconventional can be extremely effective in moulding public opinion and should, therefore, be used as a potent tool for educating people regarding new developments and researches.



Methodology

CHAPTER-III

Methodology

This chapter deals with the methodological steps followed in present study. The research procedures followed have been distinctly described under the following sub-heads :

- 3.1 Locale of study
- 3.2 Research design
- 3.3 Preparation of educational package
- 3.4 Evaluation of educational package
- 3.5 Tools for data collection
- 3.6 Analysis of data

3.1 LOCALE OF STUDY

The present study was conducted at College of Home Science, CCS Haryana Agricultural University, Hisar.

3.2 RESEARCH DESIGN

Keeping in view the objectives of investigation, the study was conducted as shown in the flow chart.

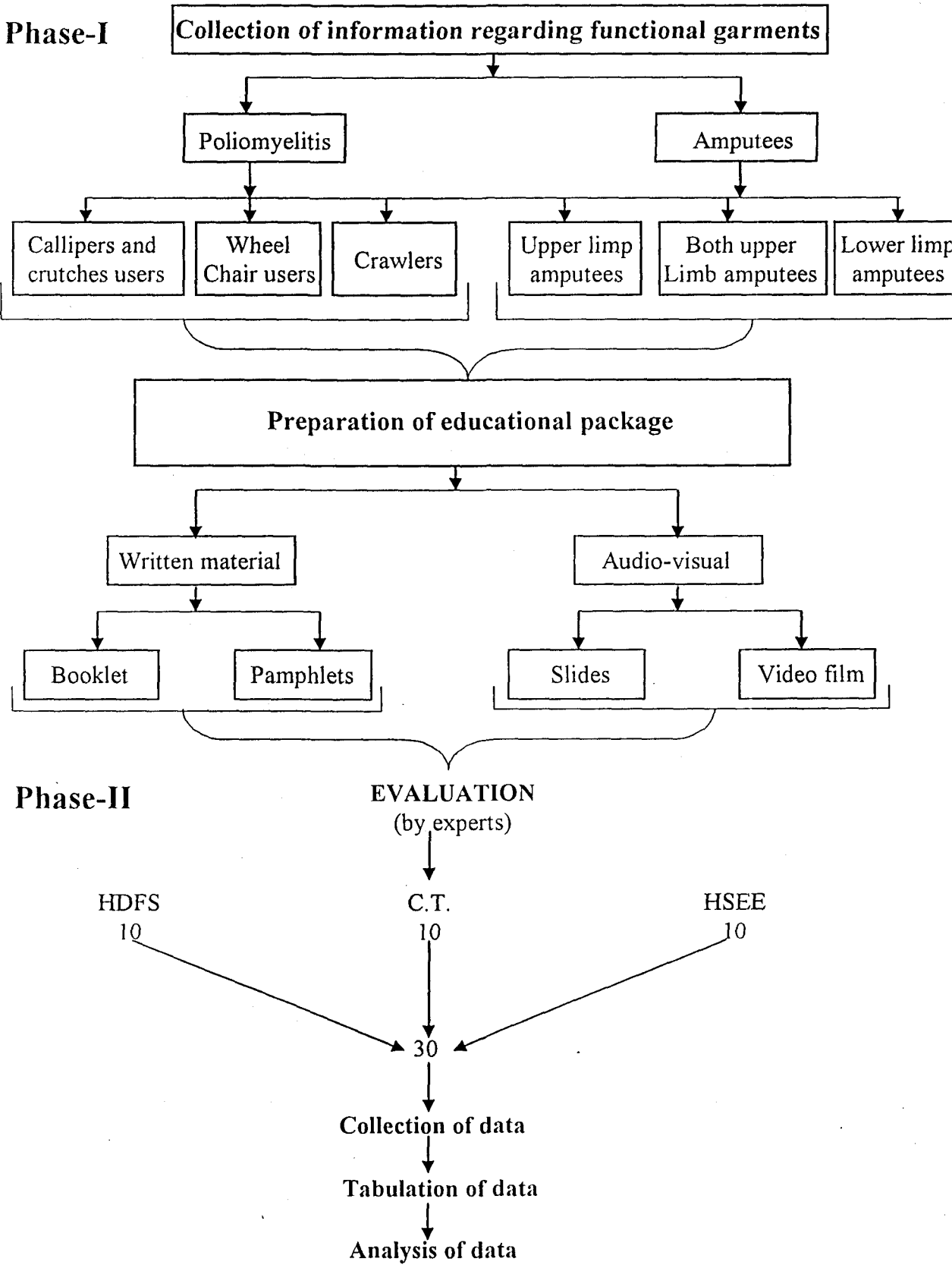


Fig. 1 : RESEARCH DESIGN

3.3 PHASE-I : PREPARATION OF EDUCATIONAL PACKAGE

Educational package may be defined as a need based community programme which aims at enriching the knowledge of concerned people supported with a ready to use reference kit for use by field functionaries. Educational package was prepared by gathering and compilation of information.

Collection of information regarding functional garments :

Information regarding developed functional garments was collected from secondary sources. To get detailed information about the functional garments thesis and research project reports of CCS Haryana Agricultural University, Hisar and other nearby universities were scanned. From review it was revealed that in most of the cases, functional garments designed for the particular disability were tried on one or two respondents only but it was felt that those cases should be included which have been tried on a larger sample. Hence two thesis (Pruthi, 2000; Rashmi, 1993) and one research project (Singh et al., 2002) were identified which included functional garments designed for ten respondents of different categories of disabled except both upper limb amputees.

To have authentic information these two secondary sources were selected for the present study. Amongst various categories gathered from secondary data following two categories were selected:

1. Poliomyelitis

- ◆ Crutches and callipers users
- ◆ Wheel chair users
- ◆ Crawlers

2. Amputees

- ◆ Upper limb amputees
- ◆ Both upper limb amputees
- ◆ Lower limb amputees

Selection of communication tools :

The information regarding selected categories were taken into account and compiled to make into presentable form :

- A) Written material
 - i) Pamphlets
 - ii) Booklet
- B) Audio-video aids
 - i) Slides
 - ii) Video film

A) Written Material :

Written material is primary source of information for speech content. It enjoys high credibility, prestige and preference, convincing and motivating power. Written material conveys information quickly, cheaply and simultaneously where reader can read it as leisure, at his own pace and as and when required. In the present study the written material is made in the form of pamphlets and booklet.

i) Pamphlets :

Separate pamphlets were written for each category. Total six pamphlets were prepared, three for disabled suffering from polio and three for amputees.

ii) **Booklet** : Pamphlets were compiled to make a booklet. The contents were :

- ◆ Brief introduction about disabled.
- ◆ Clothing related problems and solutions for disabled suffering from poliomyelitis :
 - i) Crutches and calliper users.
 - ii) Wheel chair users.
 - iii) Crawlers
- ◆ Clothing related problems and solutions for amputees :
 - i) Upper limb amputees
 - ii) Both upper limb amputees
 - iii) Lower limb amputees

These were prepared in simple and easy language for reinforcement of the messages. Hindi was used for preparing educational package.

B) Audio visual aids :

It is observed that the message gets easily convincing if the facts are demonstrated through audio visual models. So slides and video film are appropriate audio visual media as it generates interest among viewers.

i) **Slides** : Computer is common these days and most of the things are computerized. Keeping this in mind the slide shows were made with the help of computer (MS-Office).

The clothing related problems and solution with illustration were made in presentable form of slides in powerpoint. The presentation was loaded in a compact disc (C.D.) so, that it can be viewed on any computer and can be projected with an attachment with computer.

ii) **Video film :** Video film making involves various technical steps which are described as follows :

Script writing : Script of the film was written in Hindi for identified messages viz. clothing related problems encountered by the disabled and their solutions. The detailed script for commentary along with description of visual scences was prepared.

Filming : Film was prepared indoor as per convenience of some respondents, scenes were created and garments were displayed according to the script.

Editing : Sequence of the visual scences was arranged as mentioned in the script. Editing of the film was got done in the studio utilizing the expertise and equipments for vision mixing block etc. Commentary was recorded and light music was dubbed to give pleasant hearing to audience.

3.4 PHASE-II : EVALUATION OF EDUCATIONAL PACKAGE:

The prepared educational package was given and shown to 30 experts including experts from Clothing and Textiles, Home Science Extension Education and Human Development and Family Studies to assess the effectiveness of package for further implementation.

3.5 TOOLS FOR DATA COLLECTION

For evaluation of developed educational package three performas were developed for evaluation.

- ◆ For pamphlets
- ◆ For slides
- ◆ For video film

For evaluation of pamphlets the title, body text and illustrations were assessed using Tool-1 (Annexure-Ia).

Booklet was not evaluated separately because the text and illustrations used for pamphlets was compiled in the form of a booklet.

Visual assessment and compatibility were assessed for slides with the help of Tool-2 (Annexure-Ib).

Audio assessment, visual assessment and compatibility were assessed for video film with Tool-3 (Annexure-Ic).

The developed package was administered to experts to assess the effectiveness. The assessment was done on a 3 point rating scale for each statement formulated from

Most appropriate	Somewhat appropriate	Not appropriate
3	2	1

The total score of each expert was obtained by adding the scores of all the formulated statements separately.

3.6 ANALYSIS OF DATA

The collected data were scrutinised, coded and tabulated. Appropriate statistical tools and tests were applied to draw inferences.

I. Scoring

Scoring of each evaluation performa was calculated and aggregate scores were obtained.

II. Weighted mean

The mean of the scores of the respondents was calculated using the formula :

$$\text{Weighted mean score} = \frac{\text{Total score}}{\text{No. of observations}}$$

III. Levels of effectiveness

This was studied individually for pamphlets, slides and video film. Level of effectiveness for booklet was not studied as the text and illustrations used for pamphlets were used in the formation of booklet.

i) Level of effectiveness of the pamphlets

Level of effectiveness of pamphlets was measured by using evaluation performa as an effectiveness index.

The components selected for the assessment of pamphlets were : title, body text and illustrations. Accordingly, three levels were made to assess the levels of effectiveness and range were made between least expected and maximum expected score as given below :

Title :	Range
Low	4-6
Medium	7-9
High	10-12
Body Text :	
Low	10-16
Medium	17-23
High	24-30
Illustrations	
Low	5-8
Medium	9-11
High	12-15
Total Score	
Low	19-31
Medium	32-44
High	45-57

For the overall level of effectiveness total score was calculated by adding the scores of title, body text and illustrations.

ii) Level of effectiveness of slides :

The components used for assessment of slides were visual assessment and compatibility. Levels were made by classifying the scores into three classes as under:

Visual Assessment	Range
Low	8-13
Medium	14-18
High	19-24
Compatibility	
Low	3-4
Medium	5-7
High	8-9
Total score	
Low	11-18
Medium	19-26
High	27-33

Total score was obtained by adding the scores of both components and made into three classes to obtain overall effectiveness of slides.

iii) Level of effectiveness for video film :

It was assessed by using components as audio assessment, visual assessment and compatibility. These components were classified into three levels by classifying the scores into three classes as under:

Audio Assessment	Range
Low	5-8
Medium	9-11
High	12-15

Visual Assessment

Low	6-9
Medium	10-14
High	15-18

Compatibility

Low	3-4
Medium	5-7
High	8-9

Total score

Low	14-23
Medium	24-32
High	33-42

For over all assessment total score was calculated by adding the scores of audio assessment, visual assessment and compatibility. The scores were divided into three equal classes.



Results
And
Discussion

CHAPTER-VI

Results And Discussion

The data collected in accordance with research methodology is presented in the form of results which has been described in the following heads :

4.1 Evaluation of educational package

1. Evaluation of pamphlets
2. Evaluation of video film
3. Evaluation of slides

4.2 Level of effectiveness of educational package

4.1 EVALUATION OF EDUCATIONAL PACKAGE

The educational package made in the form of pamphlets, slides and video film were got evaluated.

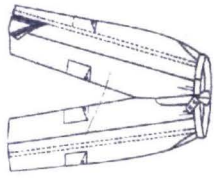
1. Evaluation of pamphlets

Total six number of pamphlets were got evaluated as individual pamphlet was made for each category. Evaluation of pamphlets was got done on the basis of title, body text and illustration.

Table 1 : Evaluation of pamphlet-1
 बैसाखी व कैलीपर प्रयोग करने वाले व्यक्तियों के वस्त्र

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
TITLE			
• Length of title	28	2	2.93
• Clarity of theme	25	5	2.8
• Size of print	25	5	2.8
• Creation of interest	28	2	2.93
BODY TEXT			
• Readability	30	0	3.0
• Understandability	30	0	3.0
• Systematic sequence	27	3	2.9
• Language	30	0	3.0
• Technical terms	28	2	2.93
• Usefulness	30	0	3.0
• Length	25	5	2.8
• Sub-titles	30	0	3.0
• Sentence length	25	5	2.8
• Size of print	30	0	3.0
ILLUSTRATIONS			
• Layout of illustration	27	3	2.9
• Size	25	5	2.8
• Relevant with sentences	30	0	3.0
• Clarity	30	0	3.0
• Self-explanatory	20	2	2.93

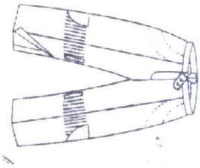
* बटन पट्टी पर जिप लगायें । (चित्र 6)



(चित्र 6)

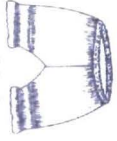
* घुटने पर से वस्त्र शीघ्र न फटे व कैंलीपर के नी-लॉक को खोलने के लिए घुटने पर बटन पट्टी लगायें व उसे जेब से ढक दें । (चित्र 6)

* घुटने तथा घुटने से ऊपर वाले भाग पर से वस्त्र शीघ्र न फटें इसलिये इस हिस्से की मजबूती के लिए कपड़ेकी अतिरिक्त तह, टटर्सेन या जेब का प्रयोग करें । (चित्र 7)



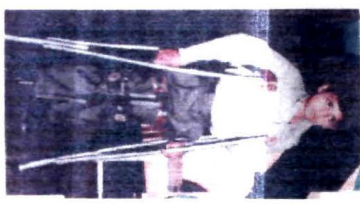
(चित्र 7)

* घुटने से ऊपर वाले भाग को फटने से बचाने के लिए अस्तर या घुटने तक लम्बे जाधियें का प्रयोग करें । (चित्र 8)



(चित्र 8)

बैशाखी व कैंलीपर प्रयोग
करने वाले व्यक्तियों
के वस्त्र



सलोनी

डा० (श्रीमति) नीलम परुथी
डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग

गृह विज्ञान महाविद्यालय

चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय

हिसार-125 004

विकलांगों का इतिहास काफी दयनीय एवं कष्टपूर्ण रहा है परन्तु विश्व ने विज्ञान एवं टेक्नॉलाजी के क्षेत्र में उच्च स्तर की उन्नति कर ली है, जिससे कि वह विकलांग लोगों को शिक्षा, विभिन्न प्रकार के प्रशिक्षण, आवश्यक रो जगार, चिकित्सा, विशेष उपकरण आदि उपलब्ध कराने में सक्षम हैं। लेकिन विकलांगों को अपने दैनिक कार्य करने में दूसरों पर निर्भर रहना पड़ता है, उनमें से वस्त्र पहनना तथा उतारना भी एक दैनिक क्रिया है। इसलिए उनकी वस्त्रों से सम्बन्धित कठिनाईयों को अनदेखा नहीं किया जा सकता।

विकलांगों के लिए वस्त्रों से सम्बन्धी कुछ शोध कार्य उनमें नया आत्मविश्वास पैदा करने में मददगार एवं उनकी आराम व वस्त्रों से सम्बन्धित कठिनाईयों को दूर करने में सहायक सिद्ध हुए हैं।

वस्त्रों से सम्बन्धी कठिनाईयां उनकी विकलांगता पर निर्भर करती है जैसे पोलियो से पीड़ित व्यक्तियों की कमजोर मासपेशियों के कारण उन्हें सहायक उपकरणों का प्रयोग करना पड़ता है। इन उपकरणों के प्रयोग से वस्त्र जगह-जगह से शीघ्र फट जाते हैं जिसके कारण उन्हें निम्नलिखित कठिनाईयों का सामना करना पड़ता है। ऐसे विकलांगों के वस्त्रों सम्बन्धित कठिनाईयां व उनके सुझाव निम्नलिखित हैं :-

ऊपरी वस्त्रों से सम्बन्धित कठिनाईयां :

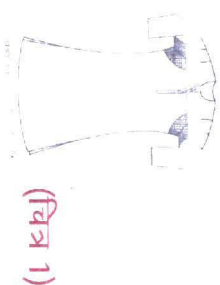
बैसाखियों के प्रयोग से वस्त्र ऊपर उठ जाते हैं व बगल में इकट्ठे हो जाते हैं।

बैसाखियों के प्रयोग से रगड़ के कारण वस्त्र जल्दी फट जाते हैं।

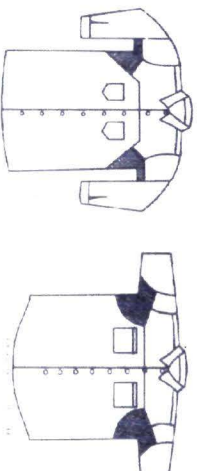
सुझाव :

* ऊपरी वस्त्र बगल में इकट्ठान हो व ऊपर की ओर न चढ़े इसके लिए मोड़ा उचित नाप का बनायें।

* वस्त्र की बगल पर पैबन्ध लगाएं ताकि वस्त्र जल्दी से न फटें। (चित्र 1)



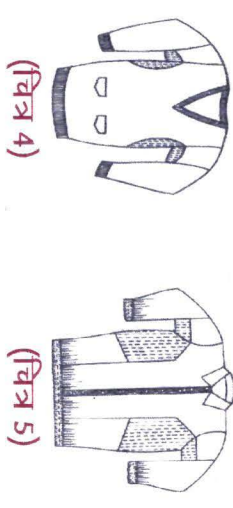
* पैबन्ध भद्दे न लगें इसलिए ऊपरी वस्त्रों को योक (चित्र 2, 3) आदि डिजाईन या विपरीत रंग के पैबन्ध लगायें जो कि सिर्फ पैबन्ध न लगकर फैशन के हिसाब से डिजाईन लगें।



(चित्र 2)

(चित्र 3)

* रेडिमेड स्वेटर, जैकेट आदि पर भी इस तरह बाद में पैबन्ध लगायें जा सकते हैं। (चित्र 4, 5)



(चित्र 4)

(चित्र 5)

* आसानी से बदले जा सकने वाले पैबन्ध लगायें जो फटने के बाद बदले जा सकें।

* बैसाखियों पर फोम के खार्यों का प्रयोग करें ताकि बगल पर वस्त्र बैसाखियों से रगड़ ना खायें और शीघ्र ना फटें।

निचले वस्त्रों से सम्बन्धित कठिनाईयां :

पोलियो से ग्रस्त विकलांगों को पैन्ट/पाजामा पहनने व उतारने में कठिनाई होती है तथा कैलीपर को वस्त्रों के अन्दर डालने में असुविधा होती है। कैलीपर का नी-लॉक खोलने व बन्द करने में घुटने से वस्त्र जल्दी फट जाते हैं। कैलीपर के प्रयोग से रगड़ के कारण अधिकतर वस्त्र घुटने तथा घुटने से ऊपर वाले भाग पर रगड़ खाकर शीघ्र फट जाते हैं।

सुझाव :

* पैन्ट/पाजामा व कैलीपर को आसानी से पहनने के लिए पाँचों से बटन पट्टी लगायें। बट्टन पट्टी की लम्बाई कैलीपर की लम्बाई पर निर्भर करती है।

i) Evaluation of pamphlet 1 : The data presented in Table 1 regarding title revealed that, the length of the title and creation of interest scored highest ($\bar{X}_w = 2.93$) while clarity of theme and size of print were also found highly appropriate but the score was 2.8 in both the cases.

The data regarding body text illustrated that readability, understandability, language, usefulness, sub-titles and size of print were found most appropriate scored highest ($\bar{X}_w = 3$). Technical term used in body text, systematic sequence, usefulness and sentence length were also assessed to be very appropriate scoring 2.93, 2.9 and 2.8, respectively.

For Illustrations, relevant with sentences and clarity scored highest ($\bar{X}_w = 3$), self-explanatory scored $\bar{X}_w = 2.93$ followed by layout of illustrations ($\bar{X}_w = 2.9$) and size of illustration ($\bar{X}_w = 2.8$). Hence all were found highly appropriate.

II. Evaluation of pamphlet 2 :

The data presented in Table 2 showed that length of title, clarity of theme, size of theme and creation of interest fall in the categories of most appropriate amongst these creation of interest had highest score ($\bar{X}_w = 2.96$) and other three components had equal values ($\bar{X}_w = 2.93$).

In case of body text most of the sub-heading such as readability, understandability, language, usefulness, sub-titles and size of prints were evaluated to be most appropriate which scored highest ($\bar{X}_w = 3$) whereas technical terms scored ($\bar{X}_w = 2.9$) followed by systematic sequence, length,

Table 2 : Evaluation of pamphlet-2

तिपहिया साइकिल/पहिए वाली कुर्सी प्रयोग करने वाले व्यक्तियों के वस्त्र

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
TITLE			
• Length of title	28	2	2.93
• Clarity of theme	28	2	2.93
• Size of print	28	2	2.93
• Creation of interest	29	1	2.96
BODY TEXT			
• Readability	30	0	3.0
• Understandability	30	0	3.0
• Systematic sequence	25	5	2.8
• Language	30	0	3.0
• Technical terms	27	3	2.9
• Usefulness	30	0	3.0
• Length	25	5	2.8
• Sub-titles	30	0	3.0
• Sentence length	25	5	2.8
• Size of print	30	0	3.0
ILLUSTRATIONS			
• Layout of illustration	28	2	2.93
• Size	30	0	3.0
• Relevant with sentences	30	0	3.0
• Clarity	30	0	3.0
• Self-explanatory	28	2	2.93

mphlet-2

पहिया साइकिल/पहिए वाली
कुर्सी प्रयोग करने वाले
व्यक्तियों के वस्त्र



सलोनी

डा० (श्रीमति) नीलम परूथी
डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग
गृह विज्ञान महाविद्यालय
चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय
हिसार-125 004

Pamphlet-2

sentence length which scored ($\bar{X}_w = 2.8$) however these were also found to be highly appropriate.

As far as illustration were concerned results showed that size, relevant with sentences and clarity scored highest ($\bar{X}_w = 3$) followed by layout of illustration and self-explanatory scoring $\bar{X}_w = 2.93$.

III. Evaluation of pamphlet 3 :

The data shown in Table 3 describes that title of pamphlet clarity of theme and size of print scored highest ($\bar{X}_w = 3$) followed by length of title and creation of interest ($\bar{X}_w = 2.93$).

Body text evaluation for readability, understandability, language, usefulness, sub-titles, sentence length and size of print scored highest ($\bar{X}_w = 3$) followed by length of body text ($\bar{X}_w = 2.96$) whereas systematic sequence, technical terms used scored ($\bar{X}_w = 2.93$).

For illustrations the size, relevant with sentences and clarity scored highest $\bar{X}_w = 3$ whereas layout of illustration and self-explanatory scored $\bar{X}_w = 2.93$. However these were assessed to be most appropriate.

IV. Evaluation of pamphlet 4 :

The data available in Table 4 shows that title of pamphlet, clarity of theme and size of print scored highest ($\bar{X}_w = 3$) the length of title scored $\bar{X}_w = 2.9$ followed by creation of interest ($\bar{X}_w = 2.8$).

Evaluation of body text for readability, understandability, language, usefulness, sub-titles and size of the print scored highest ($\bar{X}_w = 3$). Sentence

Pamphlet-3

घिसट कर चलने वाले
व्यक्तियों के लिए
उचित वस्त्र



सलोनी

डा० (श्रीमति) नीलम परूथी

डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग

गृह विज्ञान महाविद्यालय

चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय

हिसार-125 004

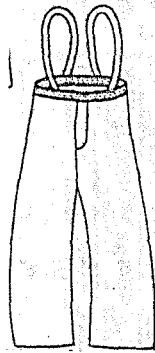
Table 4 : Evaluation of pamphlet-4
 दोनों कटी बाजू वाले व्यक्तियों के लिए वस्त्र

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
TITLE			
• Length of title	27	3	2.9
• Clarity of theme	30	0	3.0
• Size of print	30	0	3.0
• Creation of interest	25	5	2.8
BODY TEXT			
• Readability	30	0	3.0
• Understandability	30	0	3.0
• Systematic sequence	28	2	2.93
• Language	30	0	3.0
• Technical terms	28	2	2.9
• Usefulness	30	0	3.0
• Length	28	2	2.93
• Sub-titles	30	0	3.0
• Sentence length	29	1	2.96
• Size of print	30	30	3.0
ILLUSTRATIONS			
• Layout of illustration	27	3	2.9
• Size	30	0	3.0
• Relevant with sentences	30	0	3.0
• Clarity	30	0	3.0
• Self-explanatory	28	2	2.93

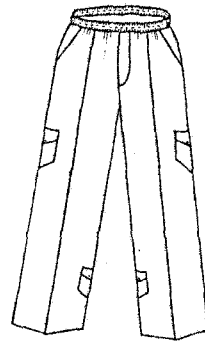
Pamphlet-4

सुझाव :

- * पैन्ट/पायजामे के नेफे में दो कतारें बनाकर (इलास्टिक का प्रयोग करें। (चित्र 3)
- * पैन्ट/पायजामे के नेफे पर गैल्स या इलास्टिक की पट्टी लगाएं जिससे उन्हें ऊपर की ओर खींचने में आसानी रहती है। (चित्र 3)



(चित्र 3)



(चित्र 4)

- * पैन्ट के लिए मोटे हौजरी वाले कपड़े का प्रयोग करें क्योंकि यह मुलायम, आरामदायक व आसानी से खींचने वाला होता है।
- * पलाई को सिलाई करके पक्का बन्द कर दे।
- * पैन्ट पर जेब नीचे की ओर लगाएं ताकि पांव से आसानी से सामान निकाला व रखा जा सके। (चित्र 4)

of length scored $\bar{X}_w = 2.96$ followed by systematic sequence and body length scoring $\bar{X}_w = 2.93$ and technical terms scored ($\bar{X}_w = 2.9$).

For illustrations, their size, relevant with sentences and clarity scored highest ($\bar{X}_w = 3$) whereas self-explanatory scored $\bar{X}_w = 2.93$ followed by layout of illustrations ($\bar{X}_w = 2.9$).

From the data it can be concluded that all parameters for title, body text and illustration were assessed to be most appropriate.

V. Evaluation of pamphlet 5 :

It is evident from table 5 that title, the length of the title and size of print scored highest ($\bar{X}_w = 3$) followed by clarity of theme ($\bar{X}_w = 2.96$) and creation of interest ($\bar{X}_w = 2.8$).

The body text evaluation shows that readability, understandability, language, technical terms, usefulness, sub-titles and size of print scored highest ($\bar{X}_w = 3$). It was followed by systematic sequence ($\bar{X}_w = 2.96$), length of body text ($\bar{X}_w = 2.93$) and sentence length ($\bar{X}_w = 2.8$).

The layout of illustration, relevant with sentences and clarity scored highest ($\bar{X}_w = 3$) followed by size of illustrations and self-explanatory ($\bar{X}_w = 2.93$) as related to the illustrations.

It is concluded from the results that all parameter were assessed to be most appropriate

Table 5 : Evaluation of pamphlet-5

कटी बाजू वाले व्यक्तियों के लिए सुविधाजनक वस्त्र

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
TITLE			
• Length of title	30	0	3.0
• Clarity of theme	28	2	2.93
• Size of print	30	0	3.0
• Creation of interest	25	5	2.8
BODY TEXT			
• Readability	30	0	3.0
• Understandability	30	0	3.0
• Systematic sequence	29	1	2.96
• Language	30	0	3.0
• Technical terms	30	0	3.0
• Usefulness	30	0	3.0
• Length	28	2	2.93
• Sub-titles	30	0	3.0
• Sentence length	25	5	2.8
• Size of print	30	0	3.0
ILLUSTRATIONS			
• Layout of illustration	30	0	3.0
• Size	28	2	2.93
• Relevant with sentences	30	0	3.0
• Clarity	30	0	3.0
• Self-explanatory	28	2	2.93

Pamphlet-5

कटी बाजू वाले व्यक्तिओं
के लिए सुविधाजनक वस्त्र



सलोनी

डा० (श्रीमति) नीलम परूथी
डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग
गृह विज्ञान महाविद्यालय
चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय
हिसार-125 004

Table 6 : Evaluation of pamphlet-6
कटी टाँग वाले व्यक्तियों के लिए क्रियाशील वस्त्र

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
TITLE			
• Length of title	30	0	3.0
• Clarity of theme	27	3	2.9
• Size of print	30	0	3.0
• Creation of interest	25	5	2.8
BODY TEXT			
• Readability	30	0	3.0
• Understandability	30	0	3.0
• Systematic sequence	29	1	2.96
• Language	30	0	3.0
• Technical terms	30	0	3.0
• Usefulness	30	0	3.0
• Length	26	4	2.86
• Sub-titles	30	0	3.0
• Sentence length	27	3	2.9
• Size of print	30	0	3.0
ILLUSTRATIONS			
• Layout of illustration	30	0	3.0
• Size	30	0	3.0
• Relevant with sentences	30	0	3.0
• Clarity	30	0	3.0
• Self-explanatory	28	2	2.93

Pamphlet-6

कटी टँग वाले व्यक्तियों के
लिए क्रियाशील वस्त्र



सलोनी

डा० (श्रीमति) नीलम परूथी

डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग

गृह विज्ञान महाविद्यालय

चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय

हिसार-125 004

विकलांगों के लिए क्रियाशील वस्त्र



सलोनी

डा० (श्रीमति) नीलम परूथी
डा० (श्रीमति) सरोज एस० जीत सिंह

वस्त्र एवं आवरण विभाग
चौ चरण सिंह हरियाणा कृषि विश्वविद्यालय
हिसार-125 004

VI. Evaluation of pamphlet 6 :

The data presented in Table 6 reveals that title, the length of title and size of print scored highest ($\bar{X}_w = 3$) followed by clarity of theme scoring $\bar{X}_w = 2.9$ and creation of interest ($\bar{X}_w = 2.8$).

As the body text was concerned readability, understandability, language, technical terms, usefulness, sub-titles and size of print scored highest ($\bar{X}_w = 3$) whereas systematic sequence scored $\bar{X}_w = 2.96$ followed by sentence length ($\bar{X}_w = 2.9$) and length ($\bar{X}_w = 2.86$).

For illustrations, the layout of illustrations, size, relevant with sentences, clarity scored highest ($\bar{X}_w = 3$) whereas self-explanatory scored $\bar{X}_w = 2.93$.

The data highlighted that all the parameters were assessed to be most appropriate.

2. Evaluation of slides :

Evaluation of slides was divided into two heads as visual assessment and compatibility. The data shown in Table 7 under visual assessment reveals that clarity of text scored $\bar{X}_w = 2.83$. Language, clarity of picture and sequence scored equally $\bar{X}_w = 2.8$, message orientation and overall comprehensive scored $\bar{X}_w = 2.76$ followed by attention catching which scored $\bar{X}_w = 2.63$ and interest orientation scored $\bar{X}_w = 2.6$.

Compatibility was evaluated under three sub-heads as physical environmental compatibility, economical compatibility and cultural compatibility scoring $\bar{X}_w = 2.6$, $\bar{X}_w = 2.63$ and $\bar{X}_w = 2.76$ respectively.

Table 7 : Evaluation of slides

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
Visual assessment			
• Message orientation	23	7	2.76
• Language	24	6	2.8
• Clarity of picture	24	6	2.8
• Clarity of text	25	5	2.83
• Interest orientation	18	12	2.6
• Attention catching	19	11	2.63
• Sequence	24	6	2.8
• Overall comprehension	23	7	2.76
Compatibility			
• Physical environmental compatibility	18	12	2.6
• Economical compatibility	19	11	2.63
• Cultural compatibility	23	7	2.76

SLIDES

वस्त्रों से सम्बन्धित कठिनाईया एवं सुझाव

अपंग व्यक्तियों को अनेक प्रकार के कार्यों के लिए दूसरों पर निर्भर रहना पड़ता है, निर्भरता और भी बढ़ जाती है जब अपंग व्यक्तियों को वस्त्रों से सम्बन्धित कठिनाईयों का सामना करना पड़ता है ।

अपंग व्यक्तियों की वस्त्रों से सम्बन्धी समस्याएं उनकी विकलांगता और उनके द्वारा प्रयोग किये जाने वाले सहायक उपकरणों के कारण उत्पन्न होती हैं । इस समय हम पोलियों से ग्रस्त विकलांग, कटी टांग व कटी बाजू वाले विकलांगों के वस्त्रों से सम्बन्धित कठिनाईयों व उनके सुझावों पर एक नजर डाल रहे हैं ।

पोलियो से ग्रस्त विकलांग :

पोलियो से ग्रस्त विकलांग वे होते हैं जिनके शरीर के सभी अंग तो होते हैं परन्तु मांसपेशियाँ कमजोर होती हैं और उन पर नियन्त्रण नहीं रहता । ऐसे विकलांग सहायक उपकरणों का प्रयोग करते हैं ।

कटी टांग व बाजू वाले विकलांग (amputees) :

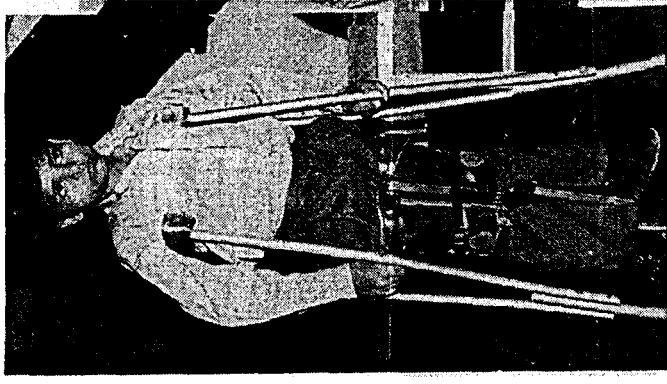
ऐसे विकलांगों की मांसपेशियाँ तो ठीक काम करती हैं परन्तु किसी हादसे के कारण इनका कोई एक या दोनों अंग नहीं होते । ऐसे कुछ विकलांग कृत्रिम अंगों का भी प्रयोग करते हैं ।

इन सभी विकलांगों की वस्त्रों से सम्बन्धी कठिनाईयों का एक-एक करके विवरण इस प्रकार है :-

कैलीपर तथा बैसाखियों प्रयोग करने वाले व्यक्तियों के लिए :

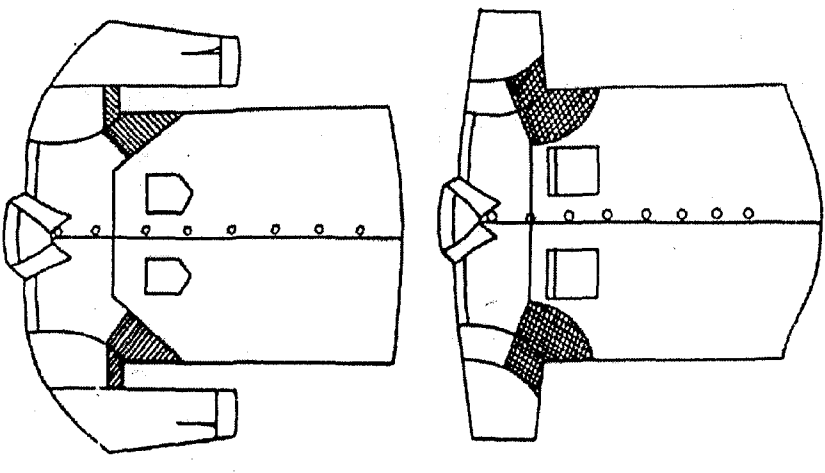
पोलियो से पीड़ित व्यक्तियों की कमजोर, मांसपेशियों के कारण उन्हें सहायक उपकरणों का प्रयोग करना पड़ता है । इन उपकरणों के प्रयोग से वस्त्र जगह-जगह से शीघ्र फट जाते हैं जिसके कारण उन्हें निम्नलिखित कठिनाईयों का सामना करना

पड़ता है -



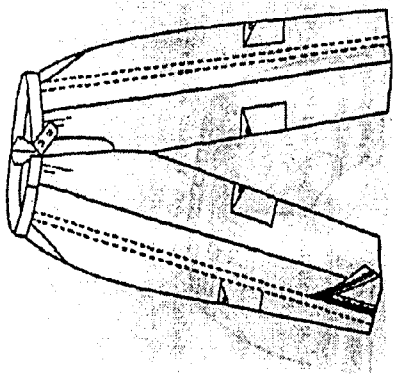
ऊपरी वस्त्र :

1. बैसाखियों के प्रयोग से वस्त्रों का ऊपर उठ जाना व बगल में वस्त्र का इकट्ठा हो जाना।
 - ऊपरी वस्त्रों का मोटा उचित नाप का बनाये ताकि बैसाखियों का प्रयोग करते समय वस्त्र ऊपर न उठे।
2. बगल से वस्त्र जल्दी फट जाना :
 - वस्त्र की बगल पर पैबन्ध लगाएं ताकि वस्त्र जल्दी न फटें व बैसाखियों पर फ़ोम के खाके का प्रयोग करें।



निचले वस्त्र :

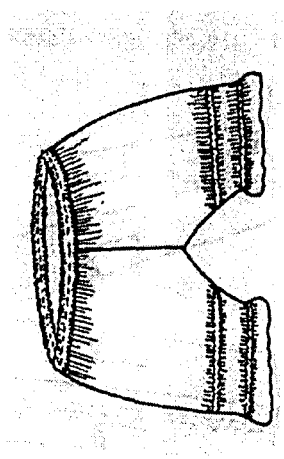
1. टांगों में वस्त्र पहनना व उतारना, पैंट के नीचे कैलीपर डालना :
 - ❖ पैंट को आसानी से पहनने व कैलीपर को आसानी से पहनने के लिए पॉंचो में बटन पट्टी लगाएं ।
 - ❖ बटन पट्टी की लम्बाई कैलीपर की लम्बाई पर निर्भर करती है । बटन पट्टी पर जिप लगाएं ।
2. कैलीपर के नी-लॉक को खोलना :
 - ❖ कैलीपर के नी-लॉक को खोलने के लिए घुटने पर बटन पट्टी बनाएं ।



3. कैलीपर के प्रयोग स घुटने तथा घुटने के ऊपर वाले भाग से

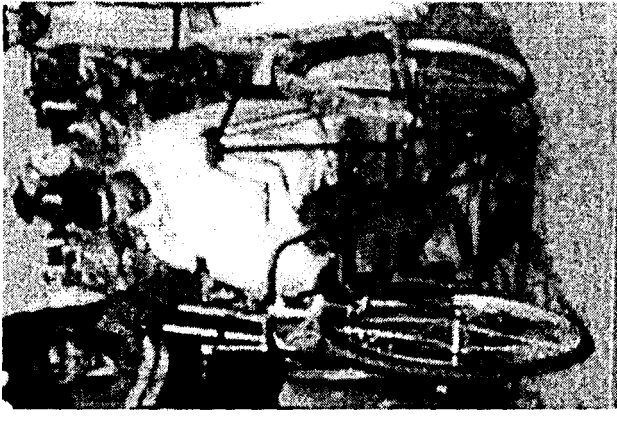
वस्त्र का शीघ्र फटना :

- ❖ घुटने वाले हिस्से की मजबूती के लिए कपड़े की अतिरिक्त तह, टैटर्सेन या जेब का प्रयोग करें ।
- ❖ घुटने के ऊपर वाले भाग को फटने से बचाने के लिए अस्तर या घुटने तक लम्बे जाधियें का प्रयोग करें ।



पहिए वाली कुर्सी / तिपहिया साईकिल इस्तेमाल करने वाले व्यक्तियों के लिए :

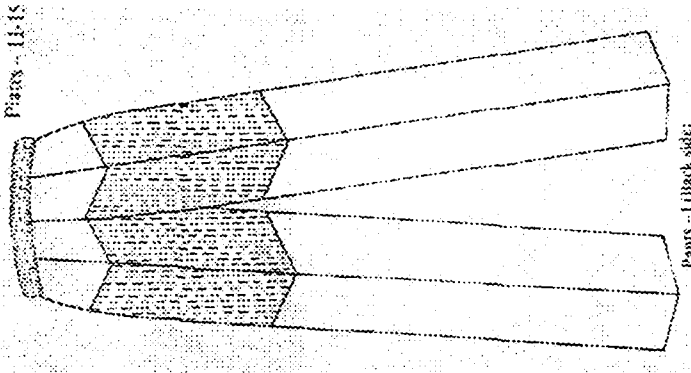
पहिए वाली कुर्सी / तिपहिया साईकिल के प्रयोग का कारण पोलियो या टांगे कटी होने के कारण क्रियाशीलता के लिए करना पड़ता है । पैरों से विकलांग होने के कारण उन्हें अनेक प्रकार की परेशानियों का सामना करना पड़ता है जिनमें से वस्त्रों से सम्बन्धित परेशानियां भी प्रमुख हैं । ऐसे व्यक्तियों का अधिकतर समय बैठी अवस्था से गुजरता है और उन्हें निचले वस्त्रों से सम्बन्धित परेशानियों का सामना करना पड़ता है, इस प्रकार की कठिनाईयों को निम्नलिखित सुझावों से सुलझाया जा सकता है :



1. मांसपेशियाँ कमजोर होने के कारण टांगों में कपड़े पहनना :
 - आसानी से टांगों में कपड़े पहनने के लिए खुले पौंचे बनायें ।
2. बैठने की स्थिति में निचले वस्त्रों का ऊपर चढ़ जाना :
 - निचले वस्त्रों की लम्बाई ज्यादा रखें ।
3. बैठने की स्थिति में फ्लाई का ऊपर उठ जाना:
 - आगे के आसन की लम्बाई कम करें ।
4. पीछे से पैंट का खिसकना व लगातार बैठने से बैल्ट का

कसना:

- पैंट को आरामदायक बनाने के लिए :
 - पीछे के आसन की लम्बाई ज्यादा रखें
 - पीछे बैल्ट के स्थान पर ईलास्टिक का प्रयोग करें ।
- 5. बैठने वाले स्थान से पैंट/पाजामा जल्दी फट जाना :
 - जल्दी फट जाने वाले स्थान पर बदले जा सकने वाले पैबन्द लगाएं ।



जमीन पर घिसटकर चलने वाले व्यक्ति (crawlers) :

जो लोग अपने पैरों पर खड़े होने में असमर्थ हैं व किसी सहायक उपकरण की सहायता नहीं लेते वे लोग अपने हाथों का प्रयोग करते हैं व घिसटकर अपनी क्रियाशीलता को बढ़ाते हैं । ऐसे लोगों के वस्त्र जल्दी फट जाते हैं व वे साधारण वस्त्रों में कठिनाईयां महसूस करते हैं । ऐसे लोगों के लिए वस्त्रों से सम्बन्धित कठिनाईयां व उनके सुझाव निम्नलिखित हैं ।

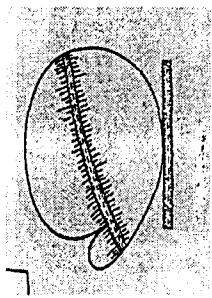


ऊपरी वस्त्र :

1. घिसटकर चलने के कारण ऊपरी वस्त्र का निचला हिस्सा जमीन पर लगने के कारण शीघ्र गन्दा होना व बैठे हुए ही वस्त्रों को पहनने में कठिनाई का सामना करना :
 - ऊपरी वस्त्रों को अधिक लम्बे न बनाएं व हौजरी वाले कपड़े का प्रयोग करें ।

निचले वस्त्र :

1. निचले वस्त्र चलने-फिरने के दौरान शारीरिक हिस्से के साथ जमीन पर रगड़ खाकर फट जाना :
 - वस्त्र को अधिक टिकाऊ बनाने के लिए अधिक घिसने व फटने वाले स्थानों पर बदले जा सकने वाले पैबन्द लगाएं
2. घिसट कर चलने से हाथों में दर्द व ज़ख्म होना :
 - हाथों के सहारे चलते समय दस्तानों का प्रयोग करें ।



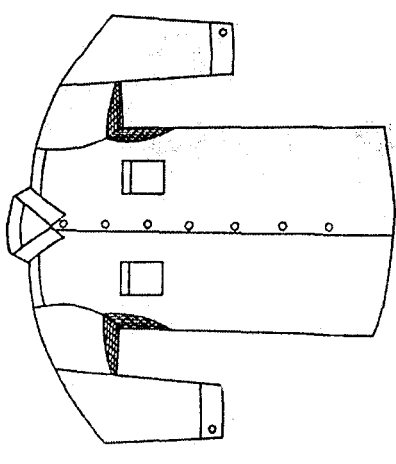
कटी टांग वाले व्यक्तियों के लिए :

कटी टांग वाले व्यक्तियों को सहायक उपकरणों या कृत्रिम अंगों का प्रयोग करना पड़ता है व अनेक प्रकार की वस्त्रों से सम्बन्धी कठिनाईयों का सामना करना पड़ता है जिनके सुझाव व कठिनाईयां निम्नलिखित हैं —



ऊपरी वस्त्र :

1. बैसाखियों के प्रयोग से वस्त्रों का ऊपर उठ जाना व बगल में इकट्ठा हो जाना :
 - ऊपरी वस्त्र का मोटा उचित नाप का बनाएं ताकि बैसाखियों का प्रयोग करते समय वस्त्र ऊपर न उठे व बगल में इकट्ठा न हो ।
2. बगल में से वस्त्र का जल्दी फट जाना :
 - ऊपरी वस्त्रों के बगल में बदले जा सकने वाले पैबन्द लगायें ।
 - बैसाखियों पर फोम के खोंके चढ़ायें ।



निचले वस्त्र :

1. कृत्रिम टांग के प्रयोग के कारण तंग पौंचे वाली पैंट

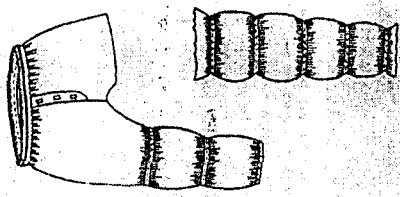
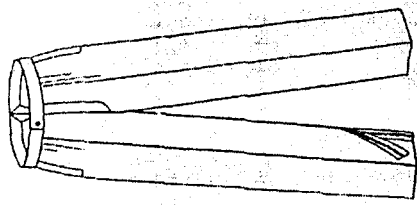
पहनने में असुविधा :

- पैंट के पौंचे में बटन पट्टी लगाये । बटन पट्टी की लम्बाई कृत्रिम टांग की लम्बाई पर निर्भर करती है ।
- बड़ी बटन पट्टी पर जिप तथा छोटी बटन पट्टी पर टिच बटन लगाये ।

2. घुटनों से ऊपर तक की कृत्रिम टांग का प्रयोग करने वालों के लिए:

- घुटने से ऊपर वाले भाग को रगड़ से बचाने के लिए
- 3-4 पंक्तियों में इलास्टिक डालकर लम्बे जाँघिये बनाये
- छोटी कृत्रिम टांगों का प्रयोग करने वालों के लिए:

युन्नटों वाली होज़ बनाएं



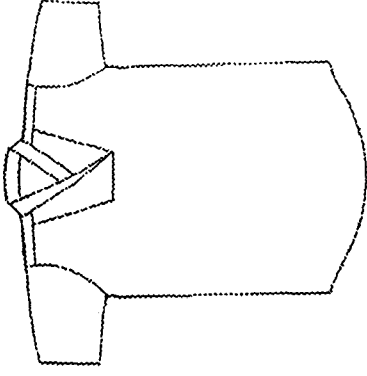
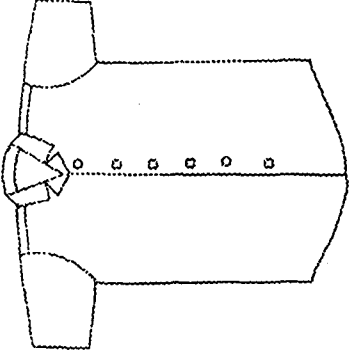
दोनों कटी बाजू वाले व्यक्ति :

दोनों कटी बाजू वाले व्यक्तियों को वस्त्र पहनने के लिए अपने पैरों का प्रयोग करना पड़ता है व ज्यादातर किसी सहायक की मदद लेनी पड़ती है । अतः ऐसे व्यक्तियों की दूसरों पर निर्भरता व विकलांगता कम करने के लिए स्वयं पहने जाने वाले वस्त्रों का प्रयोग करना चाहिए । ऐसे लोगों की वस्त्रों से सम्बन्धित कठिनाईयाँ व सुझाव निम्नलिखित हैं :



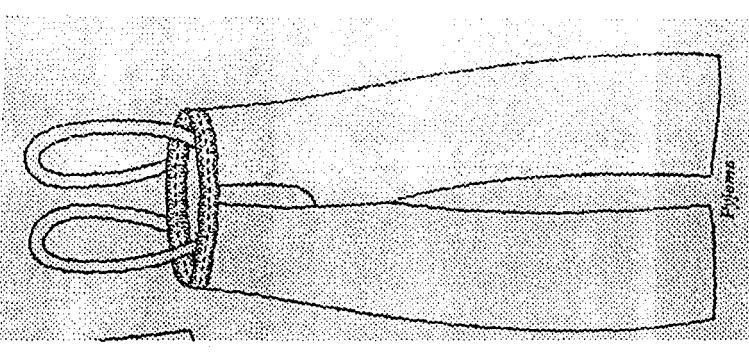
ऊपरी वस्त्र :

1. दोनों हाथ न होने के कारण बटन बन्द करने व खोलने में समस्या :
 - वस्त्रों को बिना बटन पट्टी के बनार्ये
 - या कृत्रिम बटन पट्टी लगाएं
 - हौजरी वाले कपड़े का प्रयोग करें ।



निचले वस्त्र :

- 1 बैल्ट व फ्लाई खोलना तथा बन्द करना
 - 2 नाडा खोलना तथा बन्द करना ।
- पैंट के लिए मोटे हौजरी वाले कपड़े का प्रयोग करें ।
 - पैन्ट/पजामे के नेफे में दो कतारों में 1/4” इलास्टिक डालें ।
 - निचले वस्त्र को ऊपर खींचने के लिए इलास्टिक पट्टी या गैल्स का प्रयोग करें ।
 - फ्लाई को सिलाई करके पक्का बन्द कर दें ।



कटी बाजू वाले व्यक्तियों के लिए :
कटी बाजू वाले व्यक्तियों की एक ओर से बाजू कटी होने के कारण क्रियाशीलता कम हो जाती है व उन्हे वस्त्रों से सम्बन्धी अनेक कठिनाईयों का सामना करना पड़ता है ।
कठिनाईयां व सुझाव निम्नलिखित हैं :



ऊपरी वस्त्र :

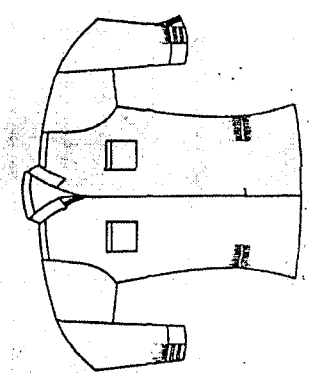
1. बटन पट्टी व कफ के बटनों को बन्द करना व

खोलना :

- छोटी बटन पट्टी ही बनायें ताकि कम से कम बटनों का प्रयोग करना पड़े ।
- छोटी बटन पट्टी के लिए आसानी से खुलने वाली जिप या बड़े टिच बटन का प्रयोग करें ।

2. कमीज को पैन्ट के अन्दर डालना :

- कमीज को आसानी से अन्दर डालने के लिए कमर पर इलास्टिक लगायें या कमीज में छोटी बटन पट्टी बनाकर उसे नीचे से खुला रखें ।



3. दाहिने बाजू कटे व्यक्ति को बाएं तरफ की सामने

वाली जेब के प्रयोग करने में असुविधा :

➤ दोनों तरफ जेब लगायें ।

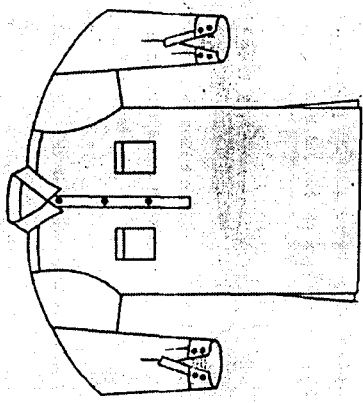
➤ कृत्रिम बाजूओं का प्रयोग न करने वालों के लिए

बाजू को मोड़कर बटन लगाएं या आधी बाजू बनाएं ।

4. कृत्रिम बाजू पहनने वालों के लिए :

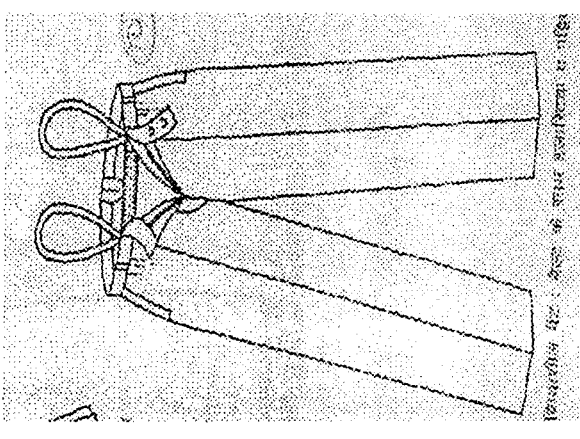
➤ इलास्टिक लगे कफ बनाएं कटी हुई बाजू की तरफ 12.5 सै.मी. की बटन पट्टी बनाकर

उसे जिप से बन्द करें ।



निचले वस्त्र :

1. निचले वस्त्रों को पहनना, पैंट की बैल्ट बांधना व फ्लाई बन्द करना ।
 - पैंट के अगले हिस्से में इलास्टिक का भी प्रयोग करें तथा इसे बराबर की सिलाई में सिलें ताकि पहनते समय पैंट न गिरे व बैल्ट बन्द करते समय भी पैन्ट कमर से नीचे न गिरे ।
 - आसानी से पहनने के लिए पैंट या पायजामें की अगली तरफ लूप लगाएं ।



2. नाड़े व धोती को बांधना व खोलना :
 - पायजामें के नेफे में इलास्टिक डाले ।
 - धोती पहनने वालों के लिए इलास्टिक लगी हुई धोती बनार्ये ।
3. पीछे की जेब का प्रयोग करना :
 - पीछे की जेब दोनों तरफ लगायें ।

The results shows that slides were evaluated as most appropriate by most of the respondents.

3. Evaluation of video film :

The evaluation of video film was divided into three heads i.e. audio assessment, visual assessment and compatibility. Under audio assessment (Table 8) overall comprehension scored highest ($\bar{X}_w = 2.83$) which was most appropriate. Message orientation and language scored equally ($\bar{X}_w = 2.8$ each) followed by voice ($\bar{X}_w = 2.63$) and clarity ($\bar{X}_w = 2.6$).

For visual assessment interest orientation record highest ($\bar{X}_w = 2.83$) followed by time given to each projection ($\bar{X}_w = 2.76$) and clarity of picture ($\bar{X}_w = 2.63$), whereas tuning with commentary, attention catching and sequence scored $\bar{X}_w = 2.6$, $\bar{X}_w = 2.56$, $\bar{X}_w = 2.56$, respectively.

Cultural compatibility and physical compatibility scored highest as ($\bar{X}_w = 2.9$) followed by economical compatibility ($\bar{X}_w = 2.6$). Overall score shows that video film was evaluated to be most appropriate.

It is evident from the results that video film was assessed to be most appropriate.

Table 8 : Evaluation of video film

	Most appropriate	Somewhat appropriate	Weighted mean score (\bar{X}_w)
Audio Assessment			
• Message orientation	24	6	2.8
• Voice	19	11	2.63
• Language	24	6	2.8
• Clarity	18	12	2.6
• Overall comprehension	25	5	2.83
Video Assessment			
• Interest orientation	25	5	2.83
• Clarity of picture	19	11	2.63
• Attention catching	17	13	2.56
• Sequence	17	13	2.56
• Time given to each projection	23	7	2.76
• Tunning with commentary	18	12	2.6
Compatibility			
• Physical environmental compatibility	27	3	2.9
• Economical compatibility	18	12	2.6
• Cultural compatibility	27	3	2.9

*VIDEO FILM
SCRIPT*

परिचय

विकलांगता को दो प्रकार से अधिशाप समझा गया है, एक तो इस प्रकार के व्यक्तियों को प्रकृति की कई अनूठी देनों से वंचित रहना पड़ता है, दूसरे विकलांगों को समाज पर बोझ समझा जाता है। विकलांग व्यक्ति स्वयं को समाज पर बोझ न समझे इसलिए उन्हें आत्मनिर्भर बनाना आवश्यक है।

हमारे देश में कई सरकारी व गैर सरकारी संस्थाएँ इस दिशा में कार्य कर रही हैं और कई प्रकार के कार्यक्रम चला रही हैं। इन कार्यक्रमों के द्वारा विकलांग लोगों को शिक्षा, विभिन्न प्रकार के प्रशिक्षण, आवश्यक रोजगार, चिकित्सा, विशेष उपकरण आदि उपलब्ध कराने के प्रयास किए जा रहे हैं, परन्तु ऐसे व्यक्तियों के लिए आरामदायक, आकर्षक तथा स्वयं पहने जा सकने वाले क्रियाशील वस्त्रों की तरफ विशेष ध्यान नहीं दिया गया है, परन्तु चौ० चरण सिंह हरियाणा कृषि विश्वविद्यालय के वस्त्र एवं आवरण विभाग के वैज्ञानिकों तथा विद्यार्थियों ने इस ओर एक अनूठा कदम उठाया तथा विकलांगों की वस्त्र सम्बन्धी समस्याओं को ध्यान में रखते हुए विभिन्न क्रियाशील वस्त्र तैयार किये हैं।

विभिन्न प्रकार की विकलांगता से ग्रस्त व्यक्तियों की वस्त्र सम्बन्धी समस्याएँ अलग-अलग होती हैं, जो उनकी विकलांगता पर निर्भर करती हैं। कोई व्यक्ति दाएँ हाथ से विकलांग है, तो कोई बाँए हाथ से, किसी व्यक्ति को चलने फिरने के लिए कृत्रिम टांग का प्रयोग करना पड़ता है, तो किसी को कैलीपर्ज की आवश्यकता पड़ती है। इन समस्याओं के कारण किसी को वस्त्र पहनने या उतारने में कठिनाई होती है, तो किसी के वस्त्र जल्दी फट जाते हैं।

वस्त्र सम्बन्धी समस्याओं को सुलझाने के लिए कई शोध कार्य किए गए हैं और उनके आधार पर विभिन्न क्रियाशील वस्त्र तैयार किए गए हैं। इस विडियो फिल्म के द्वारा पोलियो से पीड़ित विकलांग तथा कटी बाजू और कटे पैर वाले व्यक्तियों के वस्त्रों से सम्बन्धित समस्याओं व उनके आधार पर तैयार किए गए क्रियाशील वस्त्रों की जानकारी विकलांग तथा उनके अभिभावकों तक पहुँचा कर उन्हें लाभान्वित करने का प्रयास किया गया है।

कटी बाजूओं वाले विकलांगों के लिए वस्त्र

इस बच्चे का नाम सुनील है, यह छठी कक्षा का छात्र है, इसकी उम्र 12 वर्ष है। बहुत ही छोटी आयु में यह करंट लगाने से अपने दोनों हाथ गँवा बैठा। इस समय यह साकेत हॉस्पिटल, चण्डी मन्दिर, पंचकुला के होस्टल में रहकर अपनी शिक्षा प्राप्त कर रहा है।

दोनों हाथ न होने के कारण अपने सभी काम पैरों की सहायता से करता है, जैसे- लिखना, खाना, पेंटिंग बनाना आदि। लेकिन कपड़े पहनने व उतारने में उसे असुविधा होती है। जैसे कि नाड़ा खोलने-बांधने व बटन लगाने में उसे अपने मित्रों की सहायता लेनी पड़ती है।

सुनील की वस्त्रों से सम्बन्धित कठिनाइयों को जानने के बाद इसे आत्मनिर्भर व वस्त्र पहनने व उतारने में स्वतंत्र बनाने के लिए क्रियाशील वस्त्र तैयार किये गये हैं, जिन्हें सुनील अब बड़ी आसानी से अपने आप पहन लेता है।

देखिये यह क्रियाशील पायजामा, जिसमें नाड़े के स्थान पर इलास्टिक का प्रयोग किया गया है और नैफे पर लगे इलास्टिक के लूप को सुनील मुँह में लेकर ऊपर की ओर खींच कर पहन रहा है। इलास्टिक लूप के स्थान पर गैल्स का प्रयोग भी किया जा सकता है। नाड़े के स्थान पर इलास्टिक के प्रयोग से पायजामा कमर पर सही तरीके से टिक जाता है।

Sunil, putting on pyjama

यह कमीज hosiery वाले कपड़े से तैयार की गयी है। यह कपड़ा आसानी से फैल कर सही फिटिंग देता है। इस पर यह कृत्रिम बटन पट्टी लगाई गई

Sunil, putting on shirt

है, जिस पर लगे बटन स्थायी रूप से बन्द हैं और ऐसा कमीज दूसरे बच्चों के वस्त्रों से अलग दिखाई नहीं देती।

कमीज का गला सामान्य गले से बड़ा बनाया गया है, ताकि बटन पट्टी के बिना उसे आसानी से पहना व उतारा जा सके।

Sunil, taking off shirt

इस T-shirt पर ऐसा collar लगाया गया है जो बड़े गले पर लगाया जाता है। T-shirt पहनने के पश्चात् कॉलर मुड़कर सैट रहता है। यह T-shirt भी Hosiery वाले कपड़े से बनाई गई है, क्योंकि यह कपड़ा अधिक आरामदायक व लचीला होने के कारण पहनने व उतारने में सुविधाजनक है।

Sunil, putting on T-shirt with convertible collars

नैफे पर लगे इलास्टिक की सहायता से पायजामा आसानी से नीचे की ओर खिसकाया जा सकता है। घुटने पर लगी जेब भी पायजामे को नीचे की ओर खींचने में सहायक है, क्योंकि इसमें पैर का अंगूठा डालकर यह इसे आसानी से नीचे खींच लेता है।

Taking off pyjama

इन क्रियाशील वस्त्रों की सहायता से इस बालक को आत्मनिर्भर बनाया गया है।

एक कटी बाजू वाले विकलांग के लिए वस्त्र

एक बाजू कटी होने के कारण ऐसे व्यक्ति अपनी कमीज के बटन एक हाथ से बन्द नहीं कर पाते इसके लिए बटन पट्टी पर कम से कम बटन लगाएं, जिन्हें आसानी से खोला व बन्द किया जा सके, जैसे बड़े टिच बटन।

Showing shirt with placket and press buttons

ऐसे व्यक्ति अपने आप कमीज को पैट के अन्दर अच्छी तरह नहीं डाल सकते, जिसके लिए उन्हें दूसरों पर निर्भर रहना पड़ता है, कमर पर इलास्टिक लगाने से इस समस्या का समाधान किया जा सकता है। T-shirt नुमा छोटी बटन पट्टी वाली कमीज का प्रयोग करने से tucking व बटन खोलने आदि की समस्या को कम किया जा सकता है।

Showing T-shirt with slits and shirt with elastic at waist

जिन व्यक्तियों की दाईं बाजू कटी हो वे कमीज की बाईं तरफ लगी जेब का आसानी से प्रयोग नहीं कर सकते इसलिए उनकी कमीज पर दोनों तरफ जेब लगाएँ।

Indication towards pocket

जो व्यक्ति कृत्रिम बाजू पहनते हैं, वे हमेशा पूरी बाजू वाले कमीज का ही प्रयोग करना चाहते हैं, ताकि वे अपनी कृत्रिम बाजू को ढक सकें, परन्तु Cuff के बटन बन्द करने के लिए उन्हें दूसरों

Showing loops at cuffs

पर निर्भर रहना पड़ता है। ऐसी स्थिति में अगर कफ़ पर इलास्टिक लगाया जाये तो उन्हें दूसरों पर निर्भर रहना नहीं पड़ेगा।

एक हाथ से पैन्ट ऊपर की ओर खींचने में परेशानी होती है। पैन्ट को आसानी से ऊपर की ओर खींचने के लिए loop लगाये गये हैं।

Showing pant with loops for pulling upward

पैन्ट के अगले हिस्से में बैल्ट के साथ-साथ अन्दर की ओर इलास्टिक का भी प्रयोग किया गया है, ताकि पहनते समय व बैल्ट बांधते समय पैन्ट खिसक कर नीचे ना गिरे और कमर पर टिकी रहे। पायजामे के नेफे में नाड़े के स्थान पर इलास्टिक का प्रयोग करें।

Showing elastic around waist at pant

जो व्यक्ति धोती पहनने का शौक रखते हैं, उनके लिए पहले से सैट धोती पर नेफा लगा कर इलास्टिक लगाया गया है, जिससे धोती सैट करने की समस्या नहीं रहती।

Showing pre-set Dhoti

कटी टाँग वाले विकलांगों के लिए वस्त्र

जिन व्यक्तियों का एक पैर किसी दुर्घटना या किसी बीमारी आदि के कारण कट जाता है तो उन्हें क्रियाशीलता के लिए किसी सहायक उपकरण का प्रयोग करना पड़ता है।

Showing a lower limb amputee

ऐसे व्यक्ति या तो बैसाखियों का प्रयोग करते हैं या कृत्रिम टांग का, और कई व्यक्तियों को दोनों का ही प्रयोग करना पड़ता है।

सहायक उपकरणों के प्रयोग से इन्हें वस्त्र सम्बन्धी अनेक प्रकार की कठिनाइयों का सामना करना पड़ता है।

बैसाखियों का नियमित इस्तेमाल करने वालों के वस्त्र बगल से फट जाते हैं, इसलिए बगल में पैबन्द लगाये गये हैं और मोटा सामान्य नाप से थोड़ा छोटा बनाएं ताकि बैसाखियाँ प्रयोग करते समय वस्त्र न तो ऊपर उठे और न ही बगल में इकट्ठा हो।

कृत्रिम टांग का प्रयोग करने वाले व्यक्ति, तंग पौचे वाली पैन्ट पहनने व उतारने में कठिनाई महसूस करते हैं। विशेषकर ऐसे व्यक्ति जिनकी टांगें घुटने से ऊपर तक कटी हों। इसलिए पैन्ट के पौचे पर बटनपट्टी बना कर जिप का प्रयोग करें। इससे कृत्रिम टांग को सैट करने में किसी प्रकार की असुविधा नहीं होती तथा बटन पट्टी की लम्बाई कृत्रिम टांग की लम्बाई पर निर्भर करती है।

Showing an amputee with crutches and prosthesis

Showing upper garment focus at armpit reinforcement

Showing pant at placket made at Pauncha

घुटनों से ऊपर तक कृत्रिम टांग प्रयोग करने वालों के निचले वस्त्र रगड़ से अक्सर घिस जाते हैं। इन्हें घिसने से बचाने के लिए घुटने तक लम्बे जांघिये का प्रयोग करें व इसमें 3-4 पंक्तियों में इलास्टिक डालकर बनाएं।

Showing bloomer

घुटने से नीचे कृत्रिम टांग का प्रयोग करने वालों के लिए चुन्नटों वाले होज का प्रयोग करें ताकि रगड़ से पैन्ट/पायजामा घिसे या फटे नहीं।

Showing elasticated hose

कैलीपर्स व बैसाखी प्रयोग करने वाले विकलांगों के लिए वस्त्र

यह बच्चे जो आप देख रहे हैं पोलियो से पीड़ित हैं, जिनकी टांगों तथा कूल्हों की हड्डियाँ और मांसपेशियाँ बहुत कमजोर हैं, जिसके कारण वे खड़े हो कर चल नहीं सकते। अतः उन्हें चलने के लिए कैलीपर्स को प्रयोग करना पड़ता है। टांगों की कमजोरी तथा कैलीपर्स के प्रयोग के कारण उन्हें वस्त्रों से संबंधित कई समस्याओं का सामना भी करना पड़ता है।

Polio affected children showing weak limbs

देखिए इस बच्चे का मांसपेशियों पर नियंत्रण नहीं है, जिस कारण इसे अपनी टांग पकड़ कर पैन्ट में डालनी पड़ती है।

A child slipping leg through existing pant and holding leg with hand

ज्यादातर बच्चे कैलीपर्स को पैन्ट के ऊपर से ही पहन लेते हैं, क्योंकि उन्हें कैलीपर्स के ऊपर पैन्ट पहनने के कठिनाई होती है। पैन्ट के ऊपर कैलीपर पहनने से विकलांगता प्रदर्शित होती है, जिससे उनके मन में हीन भावना आती है।

इन समस्याओं का समाधान करने के लिए पैन्ट की टांगों में सिलाई के साथ-साथ बटन पट्टी बना कर जिप लगाई गई है जिसकी सहायता से बच्चों को पैन्ट पहनने में कठिनाई नहीं होती। और इसे पहनने के बाद कैलीपर भी पैन्ट के अन्दर आसानी से पहने जा सकते हैं। जिप बन्द करने के बाद न तो बटन पट्टी दिखाई देती है और न ही जिप।

इस पैन्ट में आगे की तरफ जिप लगाई गई है। जिप को ऊपर तक भी लगाया जा सकता है, जिससे अधिक लम्बे कैलीपर पहनने वाले बच्चों को ज्यादा आसानी रहती है।

जो बच्चे घुटनों के ऊपर तक कैलीपर पहनते हैं, उन्हें बैठते समय knee drop lock खोलना पड़ता है, जिसके लिए पैन्ट में घुटने पर एक बटन टेक बनाई गई है। इस बटन टेक में हाथ डालकर

Boy wearing callipers over trouser

Child slipping the leg through modified pant

Child wearing callipers under the trousers and fastening the zipper

Pant displayed on board and being explained by researcher

Child operating knee drop lock through knee pocket

Lock खोला जा सकता है और पैन्ट फँस कर फटती नहीं है। इस बटन टेक को बन्द करने के लिए वेलक्रो टेप का प्रयोग किया गया है।

घुटने पर लगे लोहे के पेचों से रगड़ खाकर पैन्ट शीघ्र फट जाती है, इसलिए पैन्ट में घुटने पर जेब भी लगाई गई है, जो बटन टेक को ढांपने के साथ-साथ वस्त्र को शीघ्र फटने से भी बचाती है।

पैन्ट को डिजाइनदार बनाने के लिए दूसरे रंग, रंग-बिरंगे चैक या लाइन वाले कपड़े की जेबें भी लगाई जा सकती हैं।

कई बच्चों की पैन्ट, पायजामा कैलीपर के ऊपर वाले किनारे में फँसकर फट जाती है। इन्हें बचाने के लिए या तो वस्त्रों के अन्दर की तरफ घुटने तक अस्तर का प्रयोग करें या घुटने तक लम्बे जांघिए का प्रयोग करें, जो वस्त्रों को शीघ्र फटने से बचाते हैं।

इस पैन्ट के पिछले भाग में बैल्ट के स्थान पर इलास्टिक का प्रयोग किया गया है, जिससे हिप पर पैन्ट को काफी खुला रखा जा सकता है और पैन्ट बच्चों की कमजोर कमर पर ठीक फिट आ जाती है।

Researcher indicating towards pocket at knee

Researcher indicating pocket on display board

Researcher showing shirred underwear and lining added to pant

Child showing pant from back and explained by researcher

पोलियों से ग्रस्त बच्चों को कैलीपर्स के साथ-साथ बैसाखियों का भी प्रयोग करना पड़ता है और इन्हें लगातार प्रयोग करते रहने से बगल से वस्त्र शीघ्र फट जाते हैं।

इस समस्या को हल करने के लिए बगल में उसी कपड़े का अस्तर लगाया गया है जिसके प्रयोग से वस्त्र शीघ्र नहीं फटता अगर फटेगा भी तो नीचे से उसी रंग के लगे अस्तर के कारण भद्दा नहीं लगेगा। अस्तर लगे हुए स्थान पर कई सिलाइयाँ लगाई गई हैं, जिससे मजबूती और भी बढ़ जाती है।

बैसाखियों पर फोम के Cover लगाने से वस्त्र बैसाखियों से घिसकर फटते नहीं व आरामदायक भी रहते हैं।

कमीज़ में कमर पर अगर इलास्टिक का प्रयोग करने से उसे पैन्ट के अन्दर आसानी से दबाया जा सकता है।

अगर कमीज को पैन्ट के अन्दर ना दबाना हो तो कमीज का घेरा गोल रखें जो बिना दबाए भी अच्छा लगता है।

Researcher showing garment torn at armpit level

Indicating towards lining used under armpit level and seams used

Researcher showing crutches with covers

Indicating towards elastic at waist in shirt

Child wearing shirt with round bottom

पहिए वाली कुर्सी/तिपहिया साईकिल प्रयोग करने वाले विकलांगों के लिए वस्त्र।

पहिए वाली कुर्सी/तिपहिया साईकिल का प्रयोग वे व्यक्ति करते हैं, जिनकी टांगों पोलियो से ग्रस्त हों या किसी दुर्घटना में अपनी टांगें गँवा दें। पैरों से विकलांग होने के कारण उन्हें अनेक प्रकार की कठिनाइयों का सामना करना पड़ता है, जिनमें वस्त्रों से सम्बन्धित परेशानियाँ भी शामिल हैं। ऐसे विकलांगों का अधिकतर समय बैठी हुई अवस्था में गुजरता है और उन्हें निचले वस्त्रों से सम्बन्धित कठिनाइयों का सामना करना पड़ता है।

Showing a boy sitting on wheel chair

पैरों की मांसपेशियाँ कमजोर होने के कारण ये लोग टांगों पर कपड़े आसानी से पहन नहीं पाते हैं, इसलिए पैन्ट के पॉचे खुले बनाए गए हैं।

Showing lower part of the pant

बैठी हुई अवस्था में पैन्ट ऊपर की ओर उठ जाती है, इसलिए पैन्ट की लम्बाई साधारण लम्बाई से ज्यादा बनाई गई है।

Focus on pant at legs

बैठी हुई अवस्था में फ्लाई उठी हुई सी रहती है, इसलिए आगे वाले आसन की लम्बाई कम कर दी गई है, ताकि फ्लाई उठे नहीं ।

Focus on fly

ज्यादातर बैठे रहने से पैन्ट पीछे से घिसकर जल्दी फट जाती है, इसलिए फटने वाले स्थान पर पैबन्द लगाये गये हैं, जो दोबारा बदले जा सकते हैं।

Focus on reinforced part at hip

पैन्ट को अधिक आरामदायक बनाने के लिए पीछे वाले आसन की लम्बाई ज्यादा रखें, ताकि बैठे रहने की स्थिति में पैन्ट पीछे से ना फिसले। पीछे की ओर बैल्ट के स्थान पर इलास्टिक का प्रयोग करें ताकि पेट पर अधिक कसाव महसूस न हो।

Focus on pant at back

घिसटकर चलने वाले विकलांगों के लिए वस्त्र

पोलियो से ग्रस्त व्यक्ति जो किसी सहायक उपकरण का प्रयोग नहीं करते वे घिसट कर चलते हैं और उन्हें चलने के लिए अपने हाथों का भी प्रयोग करना पड़ता है, जिस कारण इनके हाथों में जख्म हो जाते हैं। इसके लिए इन्हें Mitten यानि दस्तानों का प्रयोग करना चाहिए।

Showing a crawler

Showing mitten

ऐसे व्यक्तियों के ऊपरी वस्त्र अधिक लम्बे नहीं होने चाहिए, ताकि वे जमीन पर घिसटे नहीं ।

Showing crawling person with focus at upper garment

निचले वस्त्र जहाँ से अधिक घिसते हों वहाँ पैबन्द लगाने चाहिए जो आसानी से बदले जा सकें।

Focus at lower garment

4.2 LEVELS OF EFFECTIVENESS OF EDUCATIONAL PACKAGE

To assess the levels of effectiveness of educational package three levels were made as low, medium and high with their respective ranges and frequency and percentages were calculated.

1. Level of effectiveness of pamphlets :

The data available in Table 9 showed that majority of the respondents found title and body text of pamphlet-1 to be highly effective (86%) whereas only 14% respondent found it moderate effective. Regarding illustrations 93% assessed as highly effective and 7% as moderately effective. On commuting the total score 83% respondents found it highly effective whereas it was rated moderate by 17% of respondents.

Title and body text of pamphlet-2 were assessed highly effective by 93% of respondent and 7% were found it as moderately effective. For illustration 97% rated as high and only 3% rated as moderately effective.

Total score also shows higher level with 93% and 7% found it as moderate.

For pamphlet-3 title, body text, illustrations and total score were equally assessed as highly effective by 97% of respondents and moderately by 3% of the respondents.

The results related to the effectiveness of pamphlets-4,5 and 6 describes that title of all the pamphlets were found at higher level by 93% and moderately effective by 7% of respondent. Body text, illustrations and

Table 9 : Level of effectiveness for Pamphlets

Levels	Range	Pamphlets					
		1	2	3	4	5	6
		F (%)	F (%)	F (%)	F (%)	F (%)	F (%)
Title							
Medium	7-9	4 (14)	2 (7)	1 (3)	2 (7)	2 (7)	2 (7)
High	10-12	26 (86)	28 (93)	29 (97)	28 (93)	28 (93)	28 (93)
Body Text							
Medium	17-23	4 (14)	2 (7)	1 (3)	1 (3)	1 (3)	1 (3)
High	24-30	26 (86)	28 (93)	29 (97)	29 (97)	29 (97)	29 (97)
Illustrations							
Medium	9-11	2 (7)	1 (3)	1 (3)	1 (3)	1 (3)	1 (3)
High	12-15	28 (93)	29 (97)	29 (97)	29 (97)	29 (97)	29 (97)
Total Score							
Medium	32-44	5 (17)	2 (7)	1 (3)	1 (3)	1 (3)	1 (3)
High	45-57	25 (83)	28 (93)	29 (97)	29 (97)	29 (97)	29 (97)

F : Frequency
% : Percentage

total score percentage was found similar as 97% respondent found these as highly effective and 3% of respondents found it as moderately effective. Hence pamphlets were adjudged highly effective by all the respondents in all the parameters.

2. Level of effectiveness of slides

Effectiveness of slides was assessed as visual assessment and compatibility.

It is shown in Table 10 that 90% of the respondents, assessed slide as highly effective whereas only 10% assessed as moderately effective. For compatibility 86% respondents found it highly effective and 14% found it moderately effective. As total score is concerned most of the respondents (90%) assessed slides as highly effective and 10% found it as moderately effective. Hence the slides prepared was found to be highly effective.

3. Level of effectiveness of Video film

The information regarding audio, visual and compatibility assessment of video film has been presented in Table 11.

Majority of the respondents (93%) found audio assessment as highly effective whereas a very few (7%) respondents found it moderately effective.

The visual effect of film was adjusted to be as highly effective by majority of respondents (83%) and it was found to be moderately effective by 17% respondents. Compatibility was assessed to be highly effective by 73% of respondents and 27% found it as moderately effective.

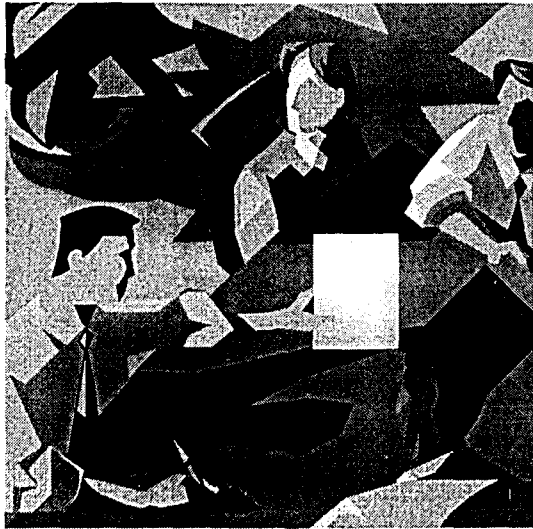
Table 10 : Level of effectiveness for slides

Levels	Range	Frequency	Percentage (%)
Visual Assessment			
Medium	14-18	3	10
High	19-24	27	90
Compatibility			
Medium	5-7	6	14
High	8-9	24	86
Total score			
Medium	19-26	3	10
High	27-33	27	90

Table 11 : Level of effectiveness for video film

Levels	Range	Frequency	Percentage(%)
Audio Assessment			
Medium	9-11	2	7
High	12-15	28	93
Video assessment			
Medium	10-14	5	17
High	15-18	25	83
Compatibility			
Medium	5-7	8	27
High	8-9	22	73
Total Score			
Medium	24-32	4	14
High	33-42	26	81

The total score related to video film highlighted that it was assessed as highly effective by majority of the respondents (86%) and moderately effective by 14% of the respondents.



Summary
And
Conclusions

CHAPTER-V

Summary and Conclusions

One of the important factors in all round development of an individual at all stages of life is clothing. It reflects many aspects of personality including body image, self-concept, self-perception and personal aspiration. All these attributes are very important for the persons with disabilities because they often suffer from perceptible defects of body and movement, which leads to the feeling of dependency, inferiority complex and frustration. The physically handicapped need functional clothes for number of factors. Functional clothing that is designed and constructed according to the physical limitation, promote self-dressing, contributes to the physical comfort, psychological well-being and also enhances their confidence and self-esteem.

Considerable amount of work has been done in India in the field of functional garments to solve the clothing related problems of the disabled. But the information is not communicated to the target group. To make the sufferers and their care takers aware about the existence of functional garments the information needs to be disseminated.

For dissemination of information various communication tools can be used to spread the information. Realising the importance of functional

garments for disabled and to make them aware about their existence, the researcher was prompted to carry out a study to answer the following specific objectives :

1. To prepare educational package on functional garments for disabled.
2. To assess the effectiveness of prepared educational package.

The present study was conducted in two phases. Phase I was preparation of educational package. Various thesis, project report and reviews were studied to collect information regarding the functional garments for the disabled. Persons suffering from polio and amputation were purposively selected on the basis of secondary data. The information regarding functional garments for selected categories were compiled and made in presentable form for identified communication tools i.e. written material in form of pamphlets and booklet and audio-visual aids in form of slides and video film. Hindi was used as medium of instruction.

In IInd phase well-structured performas were developed for evaluation and three point rating scale was used for different components of pamphlets, slides and video film separately. The components used for assessment of pamphlets was title, body text and illustration. Slides were evaluated on visual assessment and compatibility whereas video film was evaluated for audio assessment, visual assessment and compatibility. The prepared educational package was shown to 30 experts for evaluation. Data collected was coded and tabulated. Scores of weighted mean scores were calculated and level of effectiveness was adjudged.

Analysis of data showed that majority of the respondent assessed the pamphlets, slides and video tape as most appropriate and highly effective and few as moderately effective for dissemination of information.

CONCLUSION

The study concluded that the prepared educational package is most appropriate which reveals that the message is well treated and it can be effectively used for dissemination of information.

SCOPE OF STUDY

1. The study is an attempt to prepare educational package for dissemination of information to create awareness amongst the handicaps and their caretakers about the specially designed functional garments.
2. The prepared educational package will be utilized by institutes working for rehabilitation of physically handicapped as functional clothing is also a rehabilitation tool.
3. The educational package will help the social workers, physiotherapists, occupational therapists to motivate the disabled to adopt modified dresses and to inculcate the habit of self-dressing.
4. The study has contributed that the message of functional clothing for handicapped has been well treated, which can be used by other researchers.
6. This package can be utilized for educated as well as uneducated group.

RECOMMENDATIONS

1. It is clear from the study that information regarding functional garments for handicapped would generate awareness among the target group.
2. The evaluation of educational package by experts indicate that the treatment given to the message has been appropriate and hence the educational package can be utilized for dissemination of information.
3. There is need to develop more educational package to generate awareness on various messages related to specially designed functional clothing.
4. Educational package can be duplicated and used for various purposes.
5. Educational package prepared should be passed to rehabilitating organisation working for the welfare of the disabled for wider communication.



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*Original not seen

Annexure

(ANNEXURE-Ia)

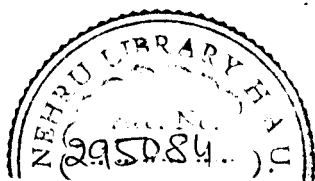
Performa for Evaluation of pamphlets

	Most appropriate (3)	Somewhat appropriate (2)	Not appropriate (1)
TITLE <ul style="list-style-type: none">• Length of title• Clarity of theme• Size of print• Creation of interest			
BODY TEXT <ul style="list-style-type: none">• Readability• Understandability• Systematic sequence• Language• Technical terms• Usefulness• Length• Sub-titles• Sentence length• Size of print			
ILLUSTRATIONS <ul style="list-style-type: none">• Layout of illustration• Size• Relevant with sentences• Clarity• Self explanatory			

(ANNEXURE-Ib)

Performa for Evaluation of slides

	Most appropriate (3)	Somewhat appropriate (2)	Not appropriate (1)
Visual assessment <ul style="list-style-type: none">• Message orientation• Language• Clarity of picture• Clarity of text• Interest orientation• Attention catching• Sequence• Overall comprehension			
Compatibility <ul style="list-style-type: none">• Physical environmental compatibility• Economical compatibility• Cultural compatibility			



(ANNEXURE-Ic)

Performa for Evaluation of video film

	Most appropriate (3)	Somewhat appropriate (2)	Not appropriate (1)
Audio Assessment <ul style="list-style-type: none">• Message orientation• Voice• Language• Clarity• Overall comprehension			
Video Assessment <ul style="list-style-type: none">• Interest orientation• Clarity of picture• Attention catching• Sequence• Time given to each projection• Tunning with commentary			
Compatibility <ul style="list-style-type: none">• Physical environmental compatibility• Economical compatibility• Cultural compatibility			