

SURVEY ON AWARENESS OF HEARING IMPAIRMENT - A PILOT STUDY

REG NO.: M9211

AN INDEPENDENT PROJECT IN PART FULFILLMENT FOR THE FIRST YEAR
M.Sc. (SPEECH AND HEARING), UNIVERSITY OF MYSORE,
MYSORE 570 006.

ALL INDIA INSTITUTE OF SPEECH AND HEARING, MYSORE -570006
1993


To

MY PARENTS

CERTIFICATE

This is to certify that the Independent Project entitled - Survey on Awareness of Hearing Impairment - A Pilot Study, is a bonafide work in part fulfillment for M.Sc in Speech and Hearing of the student with Reg. No.

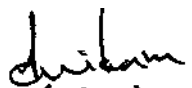
Mysore
1993


Director
All India Institute of
Speech & Hearing
Mysore 570 006.

CERTIFICATE

This is to certify that the Independent Project entitled
- Survey on Awareness of Hearing Impairment - A Pilot Study,
has been prepared under my supervision and guidance.

Mysore
1993


Dr. (Miss) S. Nikam
Guide

DECLARATION

This Independent Project entitled - Survey on Awareness of Hearing impairment - A Pilot Study, is the result of my own study undertaken under the guidance of Dr. (Miss) S. Nikam, Prof, and Head of the Department of Audiology, All India Institute of Speech and Hearing, Mysore, and has not been submitted earlier at any University for any other Diploma or Degree.

Mysore
1993

Reg. No. M9211

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* Thank you Sneha, Seena, Yeshoda and Pushpa for being my friends.

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INTRODUCTION

Man has been bestowed upon with wonderful gifts from nature. The gift of thinking, the gift of speech, the gift of sight the gift, of smelling and last but not the least, the gift of hearing.

The hearing system of man is so specialized in functioning that it is sensitive to speech which is one of the basic qualities which differentiates man from the other beings. Through this mode, using the hearing apparatus to hear speech and to use muscles of the mouth, the larynx, the lungs etc to speak, man has established a system of communication. This mode of communication is unique to man and is one of the essentials for a man's well-being.

Our ideas, thoughts and feelings are communicated to others by means of speech. Imagine the state if one had no power of speech or could not hear what you are trying to say, life will no longer be the same. We will have to resort to other modes of communication to keep our life going. Yet, it is not so easy as said. It may seem trivial, but yet protection of the gifts of nature is very important.

Since man has been gifted with the power of thinking and intelligence, he can make use of it to acquire useful information, knowledge about what the human system is all about, its functioning and care which will help in his well-being. Likewise, one should get to know the means of

protection against man's worst enemy - diseases. Germs are the main cause for diseases, and these diseases have harmful effects on the various organs in our system.

'Prevention is better than cure¹ - this statement will be valid for generations to come. If one has to prevent, one should have an awareness of the impinging harm. It is the common man who is devoid of this information, next coming the professionals non-associated with the medical or the paramedical fields. Hence, it becomes the duty of these associated professionals to spread information and create an awareness among the general public. People benefit from such useful information and thus help in reducing the incidences of various disorders. Diseases affecting our ear will not only damage our ear but will also impair the normal functioning of the person. There are other causes too which can be controlled and thus prevent hearing problems.

In some cases, hearing loss is congenital i.e. the child is born with a defect. Such cases can be helped by providing, compensatory aids in order to ease their lives, though a complete normalcy is not assured, it atleast ensures the person a much easier life.

On and off, professionals from the Speech and Hearing field have been doing the job of creating awareness among people. People have benefited from such public education programs and have made use of the services rendered by the Speech and Hearing professionals. The information has also

aided in preventing damage to our ears and also reduce noise pollution. Centres have come up which are mainly concerned with rendering such services to people. One such centre is the 'All India Institute of Speech & Hearing', situated in Mysore. This institute has been serving since 1968 and has improved tremendously in its efficient service since its inception. It is dedicated to providing facilities where a person's hearing and speech are tested and rehabilitated when deviant.

Many speech and hearing handicapped people have obtained services and valuable guidance from this Institute. Facilities also include providing free hearing aids based on the income of the patient or his/her parents and also provide therapy to various speech and hearing disorders. Apart from this, it is also producing trained professionals as it provides a bachelor's and a Master's degree program here., apart from several short term courses.

This institute is associated with other professionals like ENT doctors, Paediatricians, Neurologists, Psychologists etc. Hence, the rehabilitative approaches are team work. In order to provide the best of all measures in rehabilitation, different professionals need to be aware of this field and also work in co-ordination with it. Since children with hearing loss also need to be educated, they have to be sent to schools. Teachers in the schools are quite unaware of the different aspects of rehabilitation, the use and care of

hearing aids and modes of teaching. Moreover, such ignorance may also lead to negative attitudes towards such handicapped children.

Speech and Hearing professionals come into the picture at this stage. They can help bridge the gap between the hearing handicapped and the normally hearing. Early identification procedures developed by them such as High Risk registers have helped to rehabilitate the deaf.

This project is an attempt to find out how aware people are about different aspects of hearing handicap, its causes, rehabilitation, attitudes of people towards them and about the functioning of the All India Institute of Speech and Hearing. A very simple questionnaire has been developed and has been answered by professionals of different fields. This is a pilot study and I hope such studies are taken up on a large scale and a scanning is done through a cross section of the public.

METHODOLOGY

The methodology can be broadly divided into

- a) Preparation of a questionnaire
- b) Selection of subjects
- c) Collection of data.

a) Preparation of a Questionnaire:

In order to find the awareness, a simple but valid questionnaire had to be prepared. The questions were broadly classified such that it covers the information which the public ought to be aware of -

- i) causes of hearing loss
- ii) rehabilitation of the hearing handicapped,
- iii) attitude towards the hearing handicapped.
- iv) awareness about the All India Institute of Speech and Hearing.

Preparation of the questionnaire

The questions were prepared such that

- i) they do not incorporate technical term
- ii) should be answerable in yes/no fashion
- iii) should not be ambiguous

After the preparation of the questions, they were organised according to the categories mentioned i.e. causes, rehabilitation, attitudes and about and All India Institute of Speech and Hearing. At the end a, question which needed a descriptive answer about the usefulness of the quiz was also given. At the back of the questionnaire, answers to questions were also provided to enable self correction.

Following are the questions under each category.

I causes:

This was broadly classified as congenital and acquired. Under congenital, genetic cause was included. Prebycusis was included as an organic cause. Under acquired-deafness due to accidents, exposure to x-rays, noise, sharp instruments, drugs and diseases were included.

This covered the area which the people had to be made aware of for future precautionary measures.

The questionnaire is given in the appendix.

- 1) If there is a deaf person in a family, is another person in the same family likely to be deaf?
- 2) If a person is deaf, will his speech be affected?
- 3) Do you know that the ear is fully developed at 5 months of gestation which means that loud sounds can cause deafness even before the child is born?

- 4) Do certain drugs like kanamycin cause hearing loss?
- 5) Should a pregnant woman be less exposed to x-rays and should take drugs only under strict medical supervision?
- 6) Do infections of the nose and throat (eg cold) spread to the ear causing deafness?
- 7) Can deafness be caused due to a slap on the face or accidents involving the head?
- 8) Do loud sounds like cracker damage our care?
- 9) Is it safe to use a pen or a pencil to remove ear wax?
- 10) Do diseases like mumps and measles cause hearing loss?
- 11) Deafness is one of the problems developed as a person ages?
- 12) Is deafness contagious?

II Rehabilitation of the impaired:

Hearing impaired are impaired only in hearing and not necessary in learning. Hence, their rehabilitation also becomes as important to us as their identification. Proper educational facilities are to be provided for the overall development of such a child. Good schooling either in a special school or in a normal school can help build their future. Depending on their capabilities and aptitudes they can also be trained in professional courses.

The hearing impaired area also employed in various offices and are found to function as efficiently as a person with normal hearing.

In order to check if people are aware of the above mentioned facts, the following questions were framed.

- 1) Can a deaf child pick up speech if fitted with hearing aids?
- 2) Can a deaf child learn along with the other children in a school?
- 3) Can a deaf person do well in professional courses such as Engineering?
- 4) Are there special schools for the deaf in Mysore?
- 5) Can a deaf person work as efficiently as any other person?
- 6) Are there certain centres where the deaf can receive help?

III Attitudes towards the hearing impaired:

Attitudes are the reactions towards a person in a given situation. If the person is not normal, people react in different ways, some may pity them, some resent them, and some may show indifference. For a handicapped person, trying to show the world that he can do something, sympathy or pity is not the appropriate attitude to be shown towards them. A positive attitude is what is called for. Encouragement is a

strong force, the attitude that - 'Yes, you can do it in the normal world' is welcome. Depending on their exposure or experience with the hearing impaired, people have certain attitudes. The following set of questions were directed to probe into the attitudes of the respondents:

- 1) Is it very difficult to communicate with a deaf person?
- 2) Should a deaf child be sent only to a special school for the deaf in order to keep him with only his kind?
- 3) Will the presence of a deaf child in your child's classroom cause disturbances in proper learning for the other children?
- 4) Will a deaf child be a great distraction if put into a normal school i.e. the teacher's attention is diverted?
- 5) Will you discourage your child if he/she has a deaf friend?

IV About All India Institute of Speech and Hearing

The AIISH provides a hoard of services to the hearing impaired and people with other speech problems. Services are rendered free here. People have to be aware of the Institute in order to make use of its services. The following questions helped us to get to know how much the people are aware about AIISH.

- 1) Have you heard about the All India Institute of Speech and Hearing?
- 2) Do you know what the Institute is all about?
- 3) Are you aware that there are tests done on hearing in this institute?
- 4) Did you know that the All India Institute of Speech and Hearing can help a deaf person or any person with speech problems?
- 5) Did you know that a deaf person can obtain hearing aids from this place?
- 6) Do you know that AIISH offers a Bachelor's as well as a Master's degree program?
- 7) Have you visited this institute and seen the various departments? (eg: Psychology, ENT, Clinics, Audiology etc).

Lastly:

Do you think this quiz has helped you gain some information on hearing loss rehabilitation and about the All India Institute of Speech and Hearing? Note down a few points on this.

SELECTION OF SUBJECTS

This was one of the most important and difficult part of the study. Careful selection of subjects had to be done so that a good feedback could be established not only about how aware people are about hearing impairment but also on awareness of AIISH. Subjects were selected based on these 2 criteria. They -

- 1) should give a feedback about the awareness.
- 2) should also help in creating awareness.

Four groups of subjects were taken. A cross section of the society which included different professionals was chosen. The number of subjects in each group was 30. They were randomly chosen from the population.

Details about the subjects:

The different groups taken were

- 1) Doctors (practising medicine)
- 2) Medicos (students in training)
- 3) Nurses (in private and government hospitals)
- 4) Teachers (from schools in Mysore)

It was also seen that the subjects were picked from different areas in Mysore to avoid any bias due to the location of their work place with respect to the location of the institute.

- 1) **Doctors:** This profession was chosen so that it would help in establishing inter-professional communication. Since the questionnaire also consisted of information about AIISH, doctors could as well be aware of its functioning so that they can refer patients to AIISH.
- 2) **Medicos** - This group would help in knowing about how much of awareness is created among them in their course about speech and hearing problems. The questionnaire also had other valuable information pertaining to rehabilitation, about AIISH etc which would be useful for them in giving further services to the patients.
- 3) **Nurses** - This is another viable group which would not only help us in knowing about their level of awareness but also propagate the information as they are also in direct communication with patients.
- 4) **Teachers** - Teachers have always been regarded as early identifiers. Problems of hearing or speech seen in children are identified by teachers more often than parents. This group was chosen in order to make them more aware about speech and hearing problems.

COLLECTION OF DATA

The subjects were chosen, then was questionnaire prepared. Data was collected for further analysis. Questionnaires were distributed personally to the subjects. Since the answers are just on yes/no format, the whole process of answering took only about 30 minutes. After the questionnaires were obtained back scoring was done as follows. Every right answer was scored 1 and every wrong answer was scored 0. The above statement about the accuracy of the answers holds good only for categories like causes and rehabilitation. For attitudes - it was purely subjective but score 1 was given to every positive attitude and 0 was scored for a negative attitude.

For the category about the awareness of AIISH, every awareness was scored 1 and non-awareness was scored 0.

Since the categories were clear in the questionnaire, total scores for each category were taken for each group. This is illustrated as follows.

eg: Doctors

	Causes	Rehabilitation	Attitudes	AIISH
Doctor	Out of 12	Out of 6	Out of 5	Out of 7

The mean for each group under each category was calculated. It was then converted into percentages.

Other than this, a frequency distribution was also done in order to represent graphically the scores obtained under each group which differed in ranges.

Statistical analysis used in their study is as follows:

- 1) The Means helped in comparing the average performance of the groups with each other.
- 2) Graphical representation in terms of a frequency distribution helps in comparing one group with another in terms of the different ranges obtained in scores.

RESULTS

From the questionnaire, the following results were obtained. Given here are the mean values for each category in the questionnaire.

Table 1 gives the percentage values of the awareness of the causes of hearing impairing among the professional groups.

Table: 1

I.Causes	Mean	Percentages
Doctors	11.29	94.10%
Medicos	12.00	100.00%
Nurses	10.05	83.75%
Teachers	10.26	85.50%

Concluding from the above:

Medicos have a 100% knowledge about the causes for hearing impairment, Doctors rank second in this category.

Nurses and teachers obtain lower percentages owing to their limited knowledge about the causes of hearing impairment.

In general, it was seen that questions like inuterine causes of hearing loss, drug intake, presbycusis yielded very poor scores as compared to the other common causes.

More attention has to be given to old age and drug causes of hearing impairment in public education programs.

2. Rehabilitation

Table 2 gives the mean values obtained were

	Mean	Percentage
1. Doctors	5.49	91.60%
2. Medicos	6.00	100.00%
3. Nurses	5.50	98.30%
4. Teachers	6.00	100.00%

The above results reveal that there is a greater awareness about the different rehabilitative institutions situated in Mysore. All the four groups have scored very high in this category, the reasons may be due to the location of the Institute in Mysore and its extensive public education programs.

3. Attitudes:

Attitude towards the hearing impaired which was one of the categories in the questionnaire revealed results as shown in Table 3.

Table: 3

	Mean	Percentage
Doctors	4.8	96%
Medicos	4.8	96%
Nurses	4.3	86%
Teachers	4.6	92%

The above scores indicate that there is a positive attitude towards the hearing impaired though the nurses scored lower than the other 3 groups. They do have a positive attitude which needs to **be** reinforced though.

4. About AIISH:

This was one of the main categories whose results were awaited. The results are as given in Table 4.

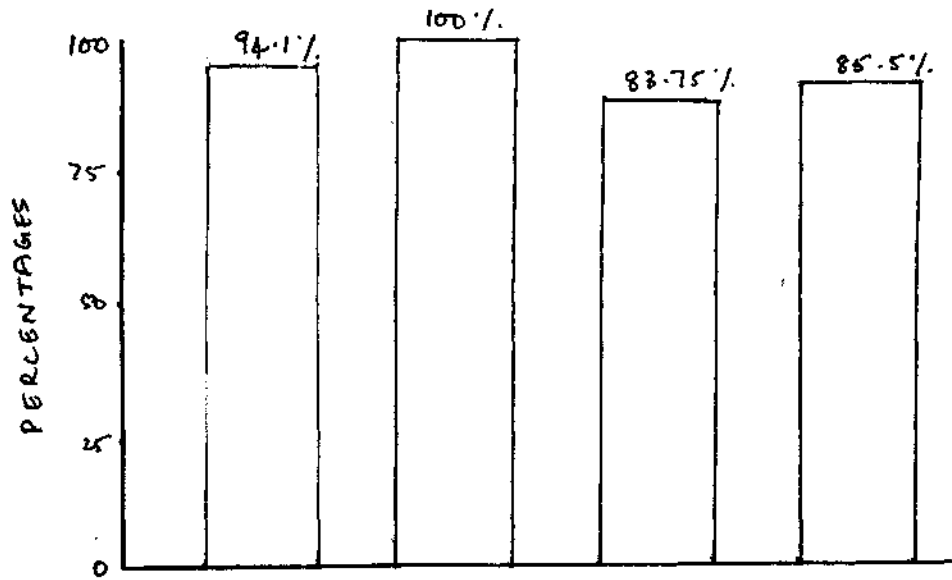
Table: 4

	Mean	Percentage
Doctors	6.5	92.8%
Medicos	6.0	85.7%
Nurses	6.0	85.7%
Teachers	5.6	80.0%

Of the four, Medical Practitioners are the people who are more aware about AIISH and its functioning. The other 3 groups scored low on information like the awareness about the different departments in AIISH and that which measured the awareness about the Bachelor's and Master's Degree in Speech and Hearing.

This implies that more has to be done in public education about the Institute and its functioning which will in turn help serve the public better.

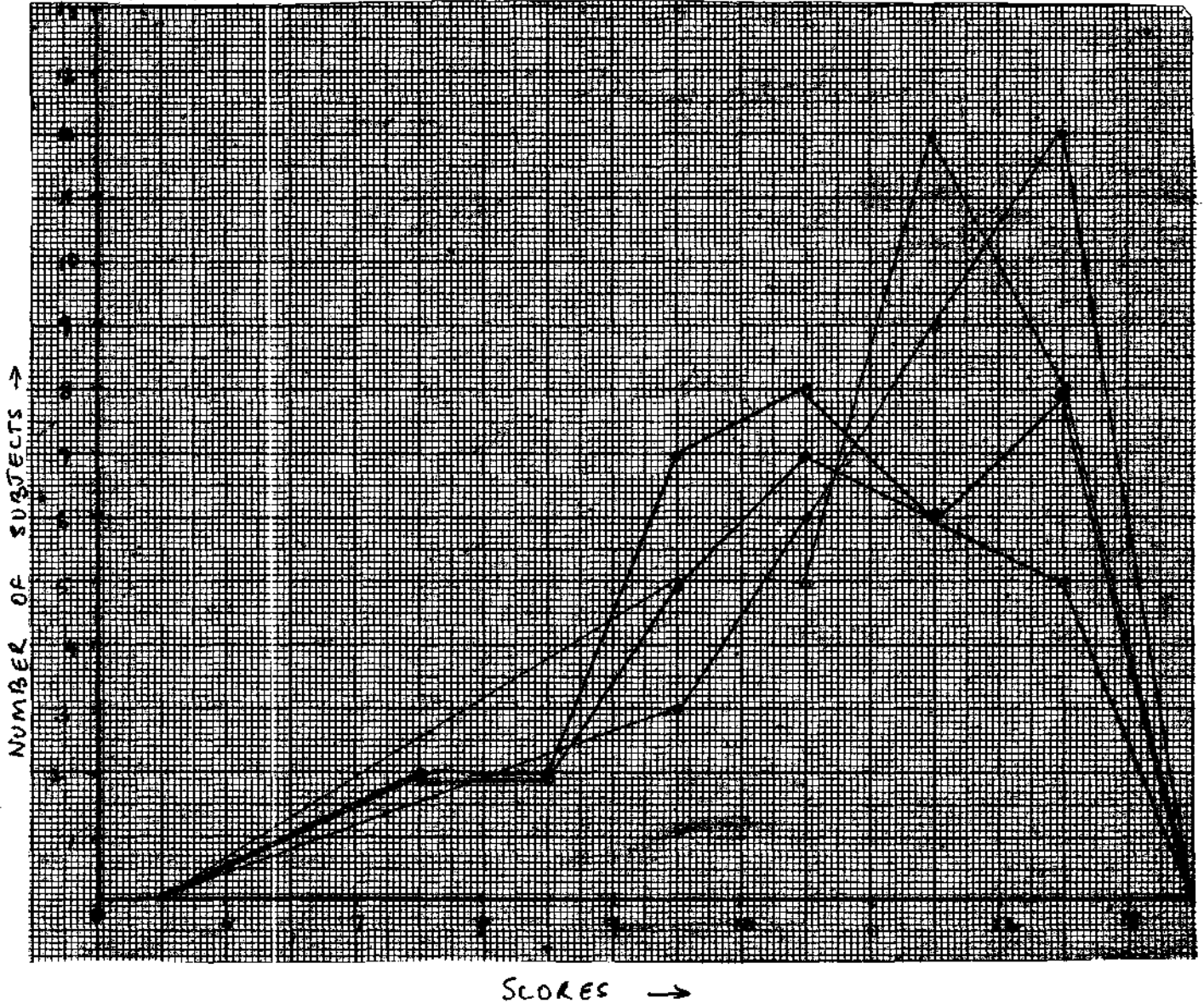
I CAUSES



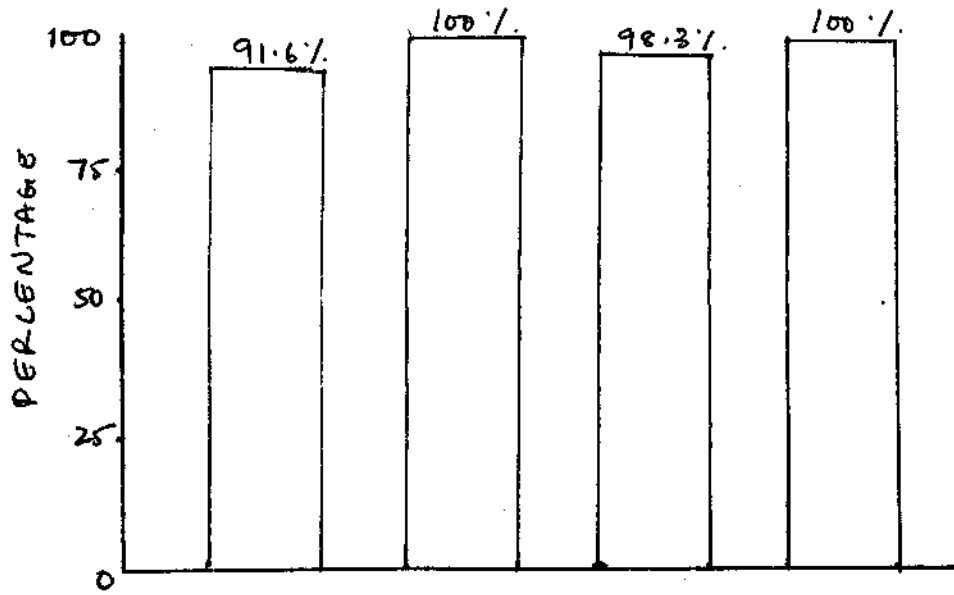
BAR DIAGRAMS
SHOWING PERCENTAGE
VALUES OF THE
4 MEANS.

- DOCTORS
- MEDICOS
- NURSES
- TEACHERS

FREQUENCY DISTRIBUTION OF THE SCORES OBTAINED



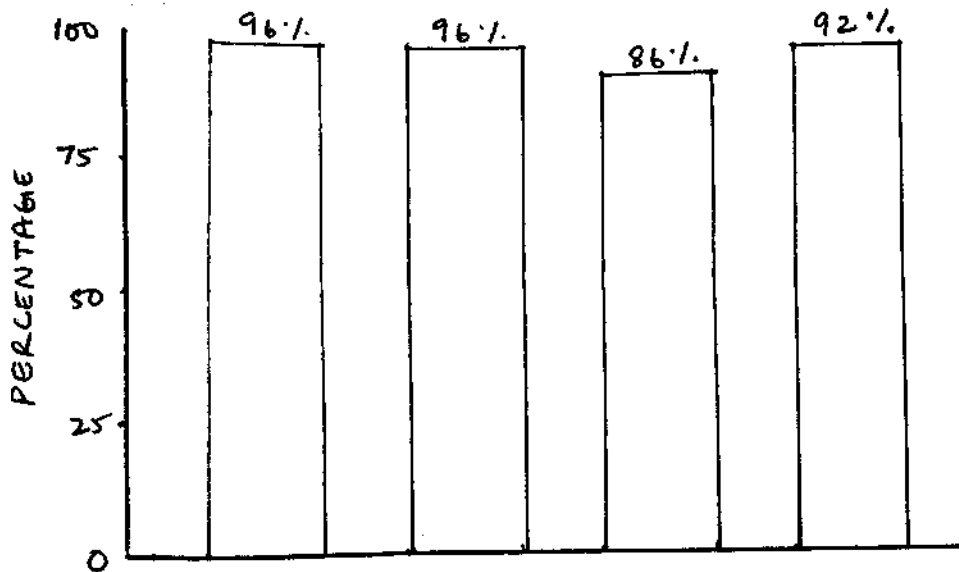
II REHABILITATION



BAR DIAGRAMS
SHOWING
PERCENTAGE
VALUES OF
THE MEANS

- TEACHERS
- MEDICOS
- NURSES
- TEACHERS

III ATTITUDES

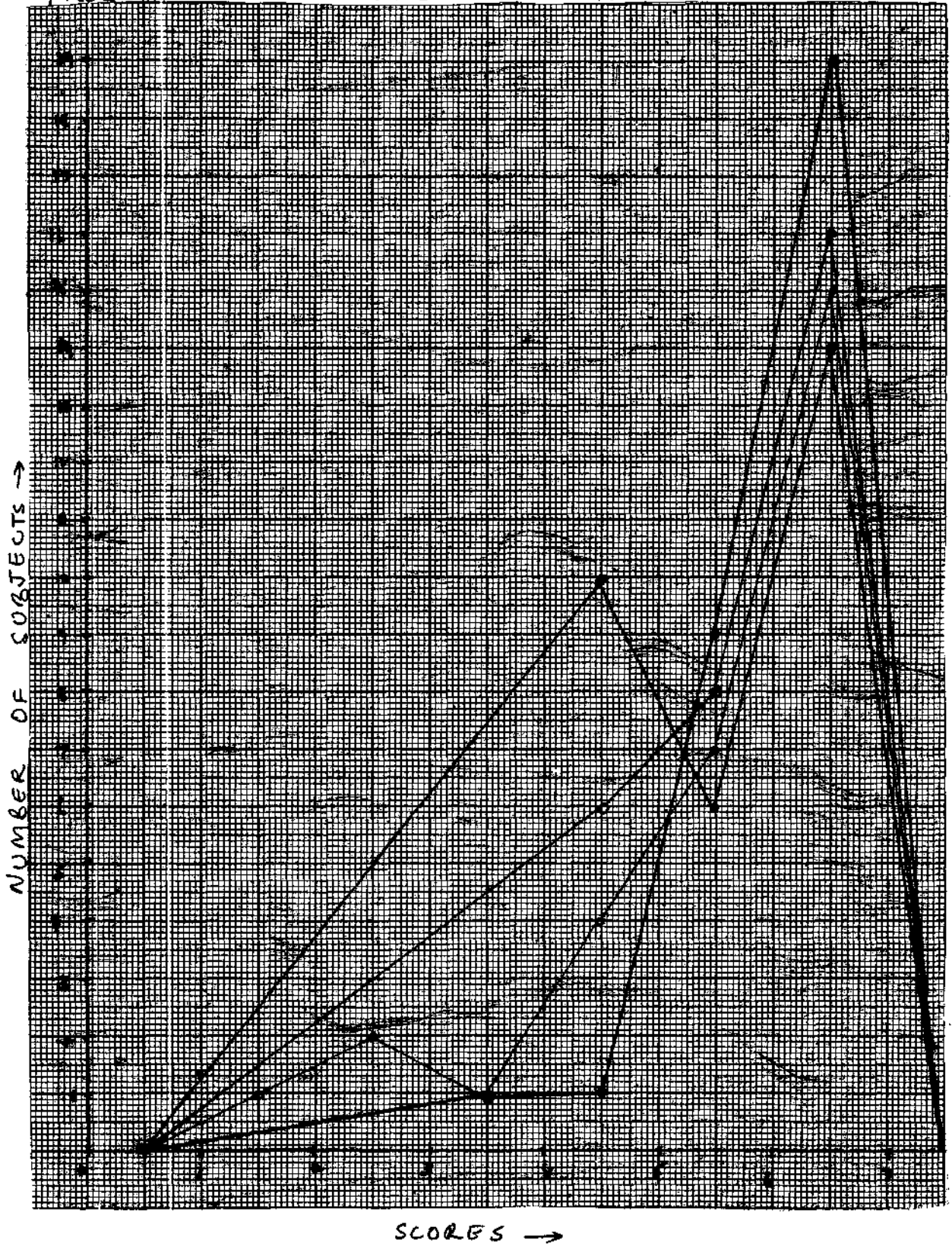


BAR DIAGRAMS
SHOWING
PERCENTAGE
VALUES OF
THE MEANS

II REHABILITATION

COLOUR CODING - SAME
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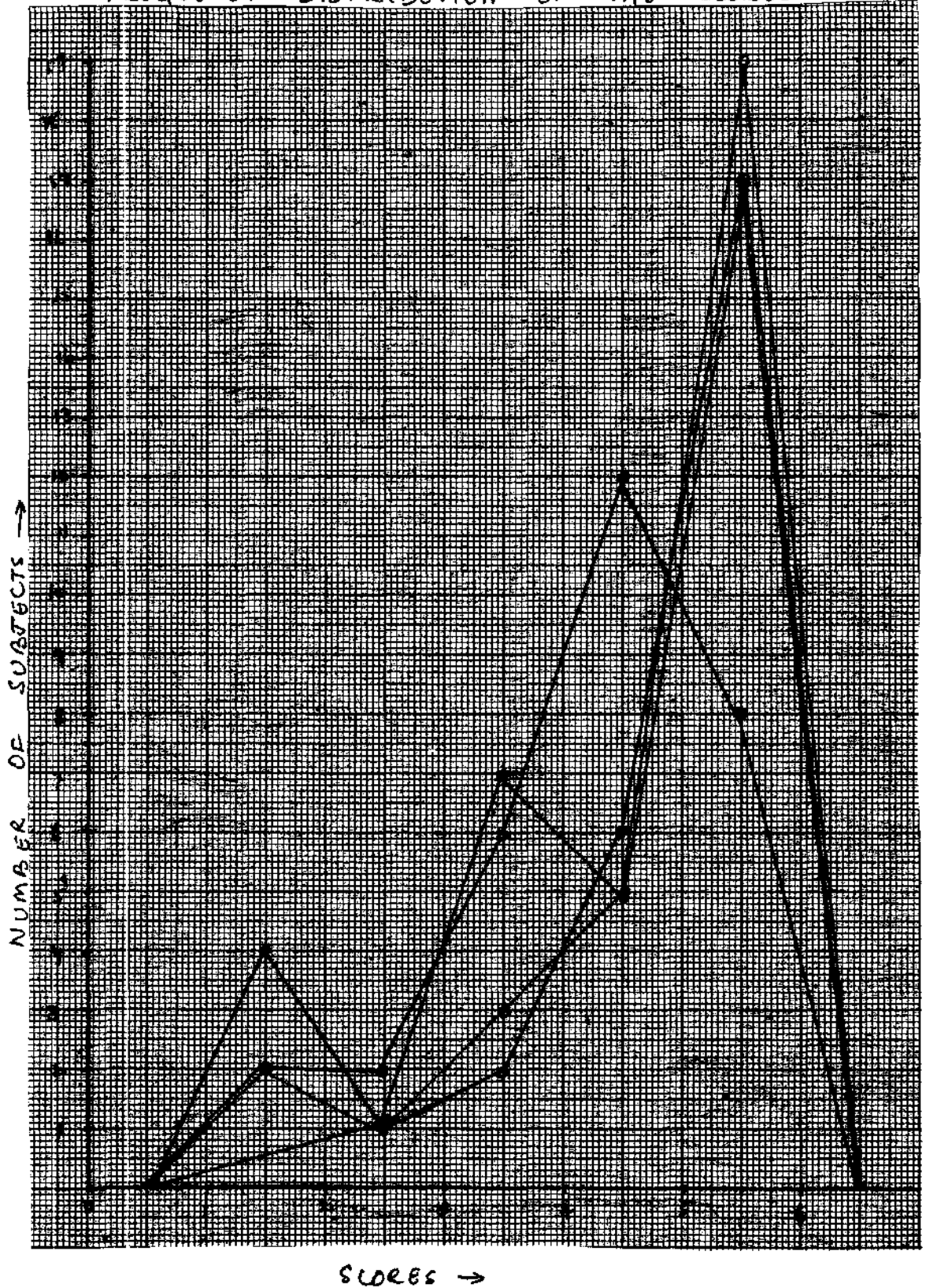
FREQUENCY DISTRIBUTION OF THE SCORES



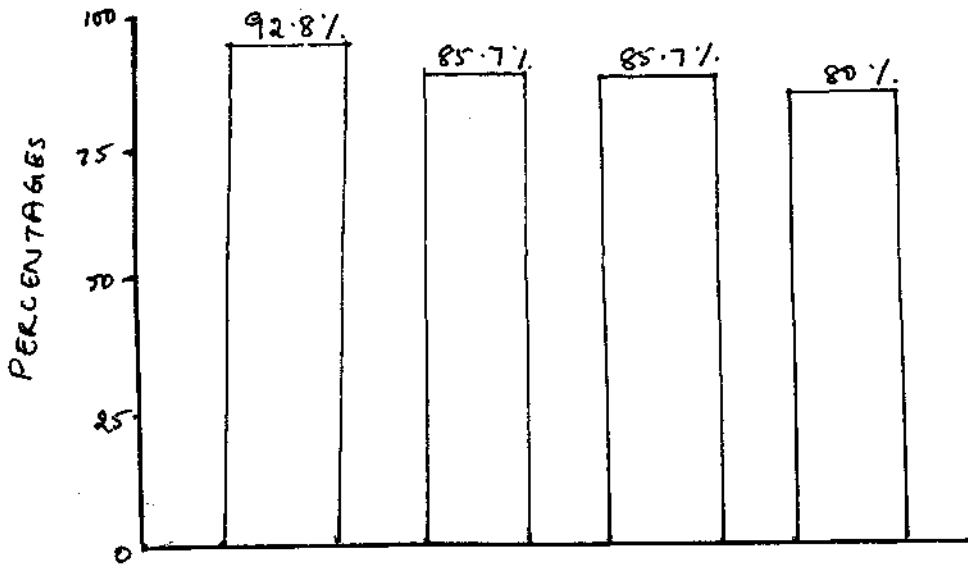
III ATTITUDES

COLOR CODING - SAME
AS BAR DIAGRAMS

FREQUENCY DISTRIBUTION OF THE SCORES



IV ABOUT ALLSH

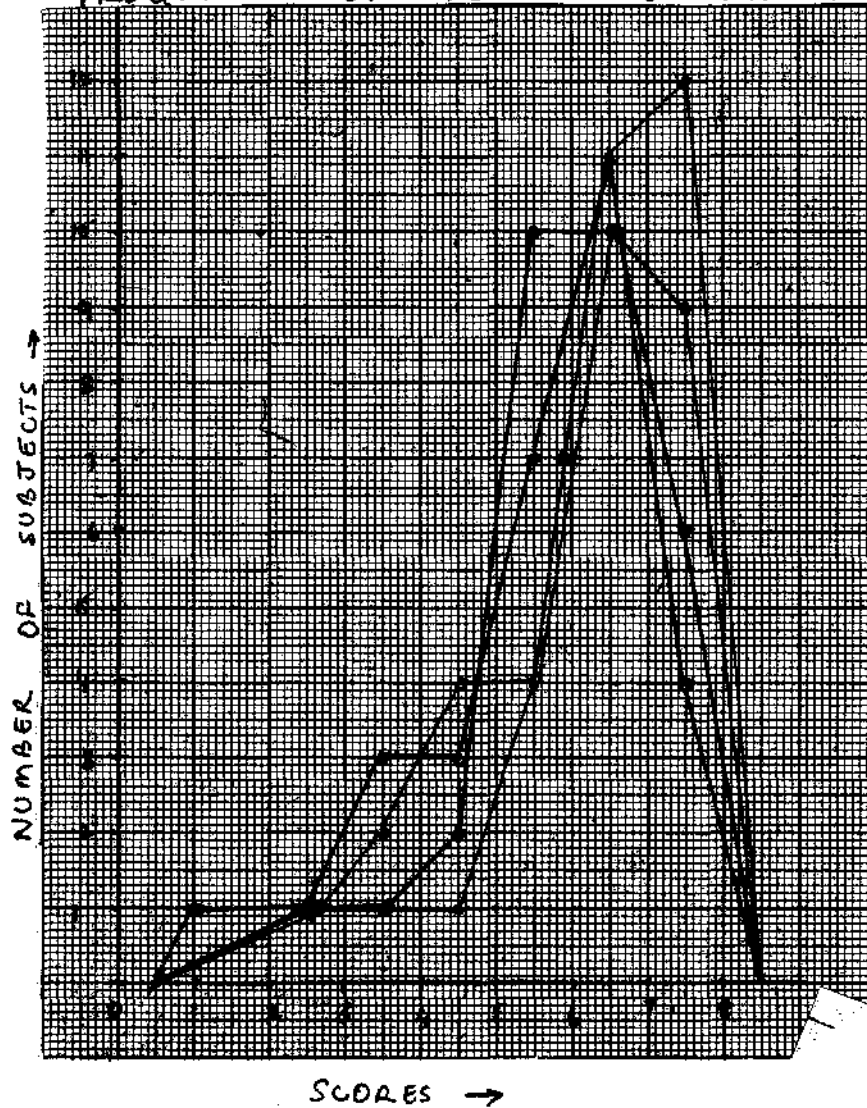


BAR DIAGRAMS
SHOWING
PERCENTAGE
VALUES OF
THE MEANS.

COLOUR CODING.

- DOCTORS
- MEDICALS
- NURSES
- TEACHERS

FREQUENCY DISTRIBUTION OF THE SCORES



DISCUSSION

Overall, this quiz has helped in gaining valuable information about the public education campaign undertaken by AIISH and thus provides a feedback about our functioning. The questionnaire has not only helped in finding out awareness but also in spreading awareness among the public. Hence, the questionnaire can also be used as a public education pamphlet along with the other materials for public education.

The subject groups chosen also opine that the questionnaire has helped in gaining more information about hearing impairment and they have also requested for more number of such programs to be conducted among the general public.

CONCLUSION

The results obtained indicates that

- 1) The four groups chosen are well aware about the facts that cause hearing impairment.
- 2) They are aware of the availability of the different schools for the deaf in Mysore.
- 3) They have a positive attitude towards the hearing impaired which will help them in integrating with the normals.
- 4) Awareness about the AIISH needs to be reinforced and promoted so that the other professionals can make referrals to AIISH whenever they encounter patients with speech and hearing disorders.

SUMMARY

A questionnaire was prepared to find out about the awareness of hearing impairment. Different professionals like Doctors, Medicos, Nurses and Teachers were given the questionnaire. Results indicated that this questionnaire is useful in assessing the awareness of hearing impairment and about the AIISH and can be used as a public education material.

SUGGESTIONS FOR FURTHER RESSEARCH

A similar research on a larger basis can be taken up including more number of subjects, different levels among these subjects like high school teachers, lecturers etc, other professionals like psychologists etc. Such a study would further help in public education programmes of the Institute.

APPENDIX

QUIZ ON AWARENESS OF HEARING IMPAIRED:

Given here are a few questions for which you have to tick either Yes/No as you think is appropriate:

Questions:

- | | | |
|--|-----|----|
| 1. If there is deaf person in family is another person in the same family likely to be deaf? | Yes | No |
| 2. If a person is deaf, will his speech be affected? | Yes | No |
| 3. Do you know that the ear is fully developed at 5 months of gestation which means that loud sounds can cause deafness even before the child is born? | Yes | No |
| 4. Do certain drugs like Kanamycin, etc., cause hearing loss? | Yes | No |
| 5. Should a pregnant woman be less exposed to X-rays and should take drugs only under strict medical supervision? | Yes | No |
| 6. Do infections of the nose and throat (eg. Cold;) spread to the ear to result in deafness? | Yes | No |

- | | | |
|--|-----|----|
| 7. Can deafness be caused due to a slap on the face or accidents involving the head? | Yes | No |
| 8. Do loud sounds like cracker damage our ears? | Yes | No |
| 9. Is it safe to use a Pen or a Pencil to remove ear wax? | Yes | No |
| 10. Do diseases like mumps and measles cause hearing loss? | Yes | No |
| 11. Deafness is one of the problems developed as a person ages? | Yes | No |
| 12. Is deafness contagious? | Yes | No |
| 13. Can a deaf child pickup speech if fitted with hearing aids? | Yes | No |
| 14. Can a deaf child learn along with the other children in a school? | Yes | No |
| 15. Can a deaf person do well in professional courses like Engineering? | Yes | No |
| 16. Are there special schools for the deaf in Mysore? | Yes | No |
| 17. Can a deaf person work as efficiently as any other person? | Yes | No |

- | | | |
|--|-----|----|
| 18. Are there certain centres where the deaf can be helped? | Yes | No |
| 19. Is it very difficult to communicate with a deaf person? | Yes | No |
| 20. Should a deaf child be sent only to a special school for deaf in order to keep him with only his kind? | Yes | No |
| 21. Will the presence of a deaf child in your child's classroom cause disturbances in proper learning to the other children? | Yes | No |
| 22. Will a deaf child be a great distraction if put into a normal school? (i.e. the teacher's attention is shifted) | Yes | No |
| 23. Will you discourage your child if he/she has a deaf friend? | Yes | No |
| 24. Have you heard about the All India Institute of Speech and Hearing? | Yes | No |
| 25. Do you know what the Institute is all about? | Yes | No |
| 26. Are you aware that there are tests done on hearing in this Institute? | Yes | No |

- 27. Did you know that the All India Institute of Speech and Hearing can help a deaf person or any person with speech problems? Yes No
- 28. Did you know that a deaf person can obtain hearing aids from this place? Yes No
- 29. Do you know that AIISH offers a Bachelor's as well as a Master's Degree Programme? Yes No
- 30. Have you visited this Institute and seen the various departments?
(eg: Psychology, ENT, Clinics etc.,
Audiology.) Yes No

Now that you have answered the questions, check out your answers:

- 1. Yes 7) Yes 13) Yes 19) No
- 2. Yes 8) Yes 14) Yes 20) No
- 3. Yes 9) No 15) Yes 21) No
- 4. Yes 10) Yes 16) Yes 22) No
- 5. Yes 11) Yes 17) Yes
- 6. Yes 12) No 18) Yes

Do you think this Quiz has helped you gain some information on hearing loss rehabilitation and about the All India Institute of Speech and Hearing? Jot down a few points on this.