CHAPTER I

INTRODUCTION

INTRODUCTION

Hearing impairment has been defined in a number of ways from different perspectives.[1] The traditional approach has place d all the hearing impaired in two basic categories; 'deaf' i.e. the person in whom the sense of hearing is non-functional for the purpose of ordinary communication by means of hearing, and 'hard of hearing' i.e. persons in whom the sense of hearing, although defective, is functional with or without a hearing aid, to some degree, for the purpose of ordinary communication by means of hearing. While this type of categorization may be proper from the medical point of view, it is bound to create enormous difficulty for a social scientist, as the persons with profound or extreme hearing loss will fall in the category of 'deaf'. The recent literature on the subject has therefore shown preference for the classification of the hearing-impairment in four categories: *(a) Mild Hearing Impairment:* Hearing loss between 26-54 dB. *(b) Moderate Hearing Impairment:* Hearing loss between 55-69 dB, *(c) Severe Hearing Impairment:* Hearing loss between 70-89 dB, and *(d) Profound Hearing Impairment:* Hearing loss of 90 dB or above.

According to the census of India, 2001, there are 2, 19, 06,769 disabled persons in the country, out of whom 16,40, 868 suffer from hearing-impairment. [2] In spite of the number of persons affected by this particular disability being of high and

alarming, their problems hardly get adequately highlighted for the simple reason that the hearing-impaired are, as a rule, quite normal in appearance and also seemingly entirely able-bodied. While they look to be in full possession of all their physical capabilities and senses, they are in fact deficient in a precious faculty i.e. the sense of hearing.

As a handicap, hearing-impairment has not attracted the proper attention of the society so far as compared to other handicaps because this handicap is visible in public only when a hearing-impaired has communicate with other people. As William G. Hardy (1952) puts it, the handicaps of hearing-impaired do not "show, the way a distorted limb or a missing finger or blinded eyes 'show' and suffer "limps" only socially, 'fumbles' only socially, 'fumbles' only psychologically, 'stumbles' only vocationally".[3]

A person may have hearing impairment from birth or may acquire it subsequently in life due to accident, disease or old age. While the problems of those having this disability right form birth may be somewhat similar in nature, the problems of the other categories of persons will depend largely on the age at which they happen to acquire this disability, as higher the age at which this disability is acquired, lesser would be its impact. Hearing impairment may not have very significant impact on a person's life where he or she acquires this disability at an advanced stage of

life. Therefore, for obvious reasons, this study is restricted to the hearing-impaired persons who are born with this disability.

COUNTRY PROFILE ON DISABILITY

Making any estimates in relation to disability in India is tough task as the statistical figures are hard to come by and where they do, they vary depending on the definitions, the source, the methodology and the scientific instruments used in identifying and measuring the degree of disability. However, the statistics published recently on the basis of Census of 2001 throw enough light on the magnitude of various types of disabilities in the country. The current profile of disability can be depicted through the following tables:

TABEL 1.1

Distribution of the disabled population in India

In Seeing	In Speech	In Hearing	In Movement	In Mental	Total Disabled population
10,634,881	1,640,868	1,261,722	2,202,725	909,168	21,906,769

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table reflects distribution of disabled population in India and we can see that maximum number of people are visually impaired followed by physical impairment.

Besides this, a concerning percentage of people are also falling in category of hearing impairment.

TABLE 1.2

Distribution of the disabled population in India by Gender

TYPE OF DIABILITY	GENDER	
	MALES	FEMALES
In Seeing	5,732,338	4,902,543
In Speech	942,095	696,773
In Hearing	673,797	587,925
In Movement	3,902,752	2,202,725
Mental	1,354,653	2,202,725
Total Disabled population	12,605,653	9,301,134

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in India by gender. It reflects that in all the areas of disability, male population is more than female disabled population.

TABLE 1.3

Distribution of the disabled population in India by Literacy status

TYPE OF DIABILITY	STATUS	
	LITERATE	ILLITERATE
In Seeing	5,301,316	5,333,565
In Speech	594,431	1,046,437
In Hearing	544,748	716,974
In Movement	3,502,924	2,602,553

Mental	857,813	1,406,008
Total Disabled population	10,601,232	11,105,537

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in India by literacy status and it shows that illiterate population is appearing more in all the areas of disability.

TABLE 1.4

Distribution of the disabled population in India by Rural and Urban Sectors

TYPE OF DIABILITY	SECTORS	
	RURAL	URBAN
In Seeing	7,873,383	2,761,496
In Speech	1,243,854	397,014
In Hearing	1,022,816	38,906
In Movement	4,654,552	1,450,925
Mental	1,593,777	670,044
Total Disabled population	16,386,382	5,518,387

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in India by rural and urban sector. It indicates that rural population in comparison to urban population is more in all the areas of disability.

TABEL 1.5

Distribution of the disabled population in Gujarat

In Seeing	In Speech	In Hearing	In Movement	In Mental	Total Disabled population
494,824	66,534	70,321	310,765	103,221	1,045,465

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of disabled population in Gujarat and we see that maximum number of people are visually impaired followed by physical impairment. Besides this, a concerning percentage of people are also falling in category of hearing impairment.

TABLE 1.6

Distribution of the disabled population in Gujarat by Gender

TYPE OF DIABILITY	GENDER	
	MALES	FEMALES
In Seeing	273,694	220,930
In Speech	40,710	25,824
In Hearing	35,430	34,891
In Movement	101,507	119,258
Mental	63,623	39,598
Total Disabled population	604,934	440,501

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in Gujarat by gender. It reflects that in all the areas of

disability, male population is more than female disabled population except in case of physical impairment.

TABLE 1.7

Distribution of the disabled population in Gujarat by Literacy status

TYPE OF DIABILITY	STATUS	
	LITERATE	ILLITERATE
In Seeing	564,907	480,558
In Speech	267,009	227,815
In Hearing	31,961	34,573
In Movement	196,624	41,042
In Mental	37,834	111,941
Total Disabled population	564,907	480,558

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in Gujarat by literacy status and it shows that illiterate disabled population is more in comparison to illiterate population. It also reflects that visually, speech and physically disabled population show better literacy status than hearing and mentally disabled population.

TABLE 1.8

Distribution of the disabled population in Gujarat by Rural and Urban sectors

TYPE OF DIABILITY	SECTORS	
	RURAL	URBAN
In Seeing	337,141	157,483
In Speech	146,110	20,424
In Hearing	52,424	17,897
In Movement	218,259	92,506
Mental	65,433	37,788
Total Disabled population	719,367	328,098

(Source: Official website of the Census of India i.e. http://www.censusindia.net/)

The above table indicates distribution of the disabled population in Gujarat by rural and urban sector. It indicates that rural population in comparison to urban population is more in all the areas of disability.

CAUSES OF HEARING IMPAIRMENT

A loss hearing may be placed in one of the four categories: conductive loss, sensorineural loss, mixed loss or the central auditory disorders.

Conductive loss of hearing is due to obstructions to conduction of sound from external ear to inner ear, and may be caused by any one or more of the following reasons:

I. Congenital deformity

ii. Obstruction in the outer ear, due to excessive wax or foreign bodies.

iii. Accidents, which include the rupture of the eardrum by a blow or explosion causing sudden excessive pressure in the outer ear or due to careless use of any mechanical device in the ear.

iv. Inflection – acute or chronic inflammation of the skin lining in the outer part of the middle ear.

v. Otosclerosis

Sensorineural loss arises in the inner ear and beyond. It can be congenital or may result from any one or more of following causes: (i) Accidents involving head injuries; (ii) Viral or bacterial infections; (iii) Noise – sudden or prolonged exposure to high intensity sound; (iv) Presbyacusis or hearing loss associated with old age; (v) Miscellaneous diseases, including interruption of the blood supply of the inner ear, viral infection of unknown origin or tumors, etc.

Mixed hearing loss is a combination of a conductive loss and sensorineural loss. In other words, owing to abnormalities affecting both the conductive and sensorineural mechanisms.

In the case of central auditory disorders, lesions in the central auditory system affect the coding, organization and the

analysis of auditory information. These problems are difficult to diagnosis and to treat. The person may have normal hearing acuity but difficult in responding normally to sound.

Conductive loss and sensorineural loss are the most common causes of hearing impairment.

LANGUAGE DEVELOPMENT IN HEARING-IMPAIRED CHILDREN

Man communicates through the medium of verbal language and this process is closely connected with the man's ability to hear. 'Not to hear' is thus 'not to hear a spoken language'. It is an undeniable fact that learning of any language naturally is not a matter of reasoning, logic, or instinct alone but is more a matter of hearing. The pupil, who was never heard a language, can be expected to know only that which he has been taught and has remembered. Therefore, if a hearing impaired child has remembered. Therefore, if a hearing-impaired child has been poorly taught, or understood or partially remembered, his language will suffer form the consequences thereof.

A common misconception is that the hearing-impaired know their language but just lack the ability to hear and speak. It is presumed erroneously that such persons can learn the language through lip-reading or reading the written language. It is again

not uncommon for the people to believe that a hearing-impaired understands their language, can read books or newspapers, or can express himself in writing but suffers from the only handicap that he cannot hear and speak. In fact, acquiring the verbal language, and not the speech alone, is the basic problem of the hearing-impaired. Simply stated, hearing impairment is deprivation of not only sound but also the deprivation of language.

Learning the language with the help of books, without hearing it, is usually very frustrating experience for the hearing-impaired child. A normal child would know the meaning of most of the words in the books, as he would have heard many of such words even before having read these. On the other hand, for a hearing-impaired child, there are numerous words, expressions, idioms and grammatical construction that he has never come across. The knowledge of language and vocabulary of the hearing-impaired child, there are numerous words, expressions, idioms and grammatical construction that he has never come across. The knowledge of language and vocabulary of the hearing-impaired is thus quite low as compared to the normal persons. [4] Due to linguistic acquisition being poor; a hearing impaired child often finds it difficult to understand that the same word may have a different meaning in the different context. [5] He tends to use

shorter sentences and use simple words. His compositions may resemble those of the less mature normal children. [6]

Inability to hear a spoken language will therefore deprive a child of the basic tool for human communication. This will in turn leave the child without any meaningful contact with knowledge, customs, culture and environment of the place where he lives. It can hardly be denied that language provides opportunities for mental growth in the highly complex dynamics of maturation, and a child without the ability to hear is thus bound to have a slower mental growth. In fact, it is only by comparing a normal child with a hearing-impaired child that we can really appreciate the extent to which verbal language helps any child in reaching full maturation and mental development without undergoing through any crisis. While the inadequacy of language can thus be a cage for the hearing-impaired child, sufficient knowledge of language can throw open the gates of the world to him.

COGNITIVE AND PSYCHOLOGICAL DEVELOPMENT IN HEARING IMPAIRED CHILDREN

Hearing-impaired children are not basically different in his innate cognitive and psychological potentialities from the children with normal hearing. There is no reason to harbor any doubts about

the mental ability of a hearing-impaired child merely because of the impaired hearing. However, there may be cases with this disability is coupled with some malfunctioning of the brain also, which may occur in case of other disabilities too.

Studies done during 1900 to 1930 on hearing-impaired children showed that these children were retarded by 3-4 years in comparison to children with normal hearing, and that they usually scored low in IQ tests. [7] This might have been due to the fact that the traditional way of assessing the level of cognitive development is by evaluation of performance on standardized tests purporting to reflect intellectual ability, but these tests have been designed primarily for persons with normal hearing and may not be appropriate to be used on hearing impaired child because of the problems communicating with a child. The studies made later have revealed that hearing-impaired children do not differ from the children with normal hearing in conceptual performance. [8]

Regarding the psychological development of hearing-impaired children, investigations show that the hearing-impaired children tend to lag behind in this aspect of development when compared to children with normal hearing. For a child with normal hearing, variables like home, family, special aptitudes and abilities, socio-economic status, educational opportunities, health, community and climate etc. greatly affect his psychological

development, but for a hearing-impaired child, his auditory impairment is a crucial factor affecting such development. Anima Sen (1988) stresses that while the hearing-impaired child is not basically different in his innate psychological potentialities from the hearing child, it is essential for the parents and teachers of the hearing-impaired child to have an insight into psychological factors that are intimately related with his communication skills. [9] Whatever such a child experiences or learns about life is through them only. His peer group members or his friends are form these two worlds. Thus, for a hearing-impaired child, two important determinant factors would be: first, his family where he comes across parent-child relationship, and, second, his educational institution. Family and school are two major compared to a child with normal hearing who has greater access to the world around just because of better communication ability.

A hearing-impaired child events adolescence quite late as compared to a child with normal hearing due to problems of establishing his own identity, independence from his family, and acceptance by peer groups. [10] The hearing impaired child may usually have a prolonged adolescence for several reasons like (i) Hearing-impaired child is often overprotected and sheltered; (ii) Most psychological growth occurs within the nuclear and extended family because experiences with peers are limited; (iii) The identity

crisis is even more profound than in able-bodied peers because of a dearth of appropriate role models. Therefore, hearing-impaired person is at a disadvantage in attempting to deal with the development demands of adolescences.

A fast moving, high achievement and need-oriented society does not have a place for a slow individual. It is not much fashionable to have a disabled friend, or to slow down for someone who needs some help. Any person with any kind of disability is therefore likely to be ignored form society. The hearing-impaired show low social interaction also because of their language and hearing abilities being limited, which reduces the opportunities for interaction both within the family and with the outside world. In his own family too, a hearing-impaired person may sometimes feel neglected or feel that he is some sort of burden on it. His total environment may thus give him a feeling or rejection or embarrassment due to which he may resort to devices such as fantasy and denial.

Most of the hearing-impaired children are found to be quite anxious and aggressive. [11] The possible reason may either be isolation or late adolescence. Inability of parents, siblings and friends to understand their communication makes them anxious and aggressive. Besides this, teenage period is quite troublesome for a hearing-impaired child because he starts feeling the

limitations and restrictions of his handicap more accurately in comparison to the children with normal hearing. As the teenage period passes, anxiety about the future is extremely common, primarily over employment, independence from the family and the possibility of marriage.

Hearing-impaired children have generally been found to be less socially matures then the normal children. [12] By social maturity, we imply the behavior that is appropriate for a particular age or stage of development. When a child is hearing-impaired, it is quite likely that "significant others" in his environment scale down their expectations for his social achievement. Parental attitude and child-rearing practices also contribute to the low social maturity in such children. [13] When the behavior of hearing-impaired child and the children with normal hearing is compared, the hearing-impaired are significantly less buoyant or happy, showing less enjoyment of the interaction with their parents, exhibiting less pride in themselves, and are less creative or imaginative.

Studies of the self-concept or self-image of hearing-impaired children indicate that they have inaccurate assessment of their capabilities. [14] As social development and self-concept go hand in hand, hearing-impaired children tend to become

egocentric and filled with self-pity. This results in a feeling of rejection leading to development of low self-concept.

Hearing-impaired children have been found to have more adjustment problems than the children with normal hearing. Signs of anxiety, depression, or inner tension are quite prevalent in the personality of hearing-impaired children. [15] All these factors have a significant impact on the psychological development of the hearing-impaired children.

MODES OF COMMUNICATION IN HEARING-IMPAIRED CHILDREN

It is often wondered as to how the people with hearing impairment communicate with others. In the case of mild or moderate hearing-impairment, oral communication is somewhat possible through the speech may not be very clear or intelligible except to a person who is used to such communication. The development of speech and language is quite below normal in such cases. However, in case of profoundly hearing-impaired children, quality of voice and speech is too poor for the purposes of communication, and the most probable option is to communicate through the medium of gestures and signs.

The hearing-impaired will usually communicate through the sign language, finger-spellings, cued speech or the

combination of two or more of these methods. The sign language is based on pictorial or ideographic representation, consisting of gestures by fingers, hands or arms, bodily movement, mimic actions, pantomime, postures, shrugging of shoulders, the raising of eyebrows, and various facial expressions etc. In this type of communication, signs may not stand just for words, but for whole phrases. Its vocabulary consists only of whatever forms of expression are possible with the movements or position of the body or any of its parts. In other words, signs do not necessarily represent words or spelling but the whole matter to be communicated. Finger spelling or the representation of alphabets through the movement of fingers or the hand is another method of communication. There are two types of manual alphabets which are represented through finger movements: The *double-hand alphabets*, and *the single-hand alphabets*. The *double-hand alphabets* system is in part based upon the principle of having different positions of the fingers of the tow hands, usually one super-imposed on the other, to represent the alphabets. Touching of proper or designed parts of one hand by the other is also used to indicate different alphabets. The *single-hand alphabet system* relies only on a single hand and its fingers to represent alphabets, leaving one hand free for other operations.

Cued speech is a method for supplementing speech reading by using hand signals. Hand shapes are used in different positions near the lips to identify sounds that cannot be distinguished by speech reading alone. The cues are neither signs nor finger spelling. Speech and sign can also be used simultaneously for communication.

TYPE OF HEARING TESTS USED IN INDIA

A number of tests are used in India for determining the hearing capacity of an individual. These can be classified into different groups as listed below:

INFORMAL TESTS

Informal tests are used for basic screening. These are based on observation of the behavior patterns of a subject in response to various auditory stimuli. The single objective of such tests is the 'early identification of hearing loss'. These can be performed on newborn babies as well as on the school-going children to assesses whether the hearing is normal or not, but such tests cannot measure the degree of hearing loss.

One of the commonly used informal test is *'arousal test'*. This test uses a high intensity sound signal on an infant. If the infant gets disturbed or startled, his hearing sensitivity is likely to be normal, but if he repeatedly fails to respond to such sound,

formal hearing tests is recommended. The only objective of informal tests is to identify the possible hearing loss in children.

FORMAL HEARING TESTS

Formal hearing tests are used for screening as well as for diagnostic purposes. These tests are carried out using simple or sophisticate equipments and are required to be conducted by trained professionals. Formal hearing tests fall in tow categories: Subjective hearing tests and objective hearing tests:

- SUBJECTIVE HEARING TESTS

In this type of formal tests, subject's participation is maximum.Three commonly used subjective formal tests are: Tunning Fork test, Pure Tone audiometry and Speech audiometry.

Tunning Fork test uses forks of different sizes and frequencies, are 256 Hz, 512 Hz, 1024 Hz, 2048 Hz and 4096 Hz. Tunning fork tests are effective tests for qualitative evaluation. When the professional makes sound from these forks, the individual has to report whether he has heard the sound or not. These rests thus require active participation of the subject and are hence difficult to perform on severe to profound Hearing loss cases. The test findings do not give quantitative evaluation of hearing loss.

Pure tone audiometry is a diagnostic test which uses an electronic oscillator circuit which generates pure tone frequencies with controlled output levels. The purpose of the test is to find out the faintest tone a subject can hear at various desired frequencies. This faintest intensity is called 'threshold of hearing'. The test result help in identifying the type of hearing loss i.e. conductive or sensorineural or mixed. It is also used to measure the degree of hearing loss.

Speech Audiometry is a supplement tool to the pure tone audiometry procedure. It is a test of the overall performance of a subject in hearing, understanding and responding to speech. Speech Audiometry is particularly suitable for the general assessment of hearing and the estimation of the degree practical handicap related to a hearing loss. The procedure of speech audiometry is fairly simple. Words or sentences are spoken into microphone, which is a built-in part of the auditometer. This signal is passed through a calibrated attenuator and is heard by the listener through the headphones, or through the loudspeakers. The listener is asked to identify the words. He may repeat the test words or he may check them on a multiple-choice list or he may write down on a paper. One of the problems in conducting this test is that the subject should have some minimum vocabulary and the tester and the speaker should know the same language.

- OBJECTIVE HEARING TESTS

In objective hearing tests, modern and sophisticated instruments are used to detect the hearing capacity of a person. The tester has to be a well-trained audiologist. As the subject's active participation is not required, the test results do not depend on his level of intelligence, co-operation or attention span. The three widely used objective hearing tests are Impedance Audiometry, Brainstem Evoked Response Audiometry (BERA), and Otoacoustic Emission Test.

Impedance audiometry is an objective means of assessing the function of the auditory system. During the test, a small probe is inserted into the ear canal, and with the help of a pressure release pump, air pressure is exerted on the ear drum. The drum responds to the change of air pressure in the outer car canal. This results in some degree of displacement of the ear drum. This movement of the ear drum is measured which indicates the degree of hearing impairment. The instrument shows the results in a graphical form called as 'tympangram'. It provides useful diagnostic information about the status of the middle ear reflecting the condition of inner ear pathologies, which help in deciding about the type of hearing aid that would be most suitable.

Brain Evoked Response Audiometry (BERA) does not require any physical participation of the subject and therefore it can be performed on newborn babies or even when the child is sleeping. This test is used quite commonly for measuring the degree of hearing impairment.

Octoacoustic Emission Test another commonly used test for identification of hearing impairment. This test too can be performed on newborn babies. However, this test is not useful for measuring the degree of impairment for which BERA is often recommended.

ADJUSTMENT

Life is a constant struggle to achieve something or the other, or simply be at peace with oneself. The goals may include being successful in school, maintaining good health, experiencing a happy home life or being successful in a chosen vocation. When the results fall short of expectations or the procedures appear tough, an individual tends to alter his goal, methods or attitudes without causing too much injury to ones' own ego. This constant process of changing oneself to suit the prevailing situation is called Adjustment'. If this process of change results in wholesome and constructive attitudes and behavior, an individual is said to have adjusted well to his environment. However, where such changes

result in generation of a feeling of failure or self-pity, or development of negative attitude, the process is called 'maladjustment'.

The concept of adjustment underline the individual's struggle to get along or survive in his or her social and physical environment. An individual makes a variety of adjustments to people, circumstances and events. These adjustments form an integral part of individual to individual. There is always a possibility of such adjustments being detrimental to the interest of the individual himself or the society.

Adjustment may involve either of the two processes; (i) Fitting oneself into the given circumstances, or (ii) Changing the circumstances to fit one's needs. The concept of adjustment has been defined in a number of ways by social responsibility. [16] Schneider (1953) defines adjustment as a process by which the internal demands of motivation are brought into harmonious relation with the external demands of reality. [17] Lazarus (1976) defines adjustment as consisting of the psychological processes by means of which the indicidual manages or copes with various demands and pressures. [18]

AREAS OF ADJUSTMENT

No human adjustment is ever complete, and is a continuous interaction of an individual with his environment. Human have to make a lot of adjustments in various areas of life. Following are some of the major areas where crucial adjustment have to be made constantly.

- Health adjustment

One is said to be adjusted to one's physical development or is said to have good health adjustment when his physical abilities are in conformity with those of other of the same age, and no difficulty is generally faced due to impairment or incapability's of any of the physical organs or due to any other physical infirmity. In other words, the person who faces physical problems relating to health on a regular basis in his daily life is said to have poor health adjustment. For instance, constant and persistent cold and cough, headache, stomachache, indigestion and constipation are generally indicative or poor health adjustment.

- Emotional adjustment

Emotions play a very important part in one's adjustment to self and environment, individual has certain urges, drives and needs which he strives to satisfy. When the gratification of all his urges is not possible, he feels frustrated and his maladjustment on this

count is indicated by constant feelings of aggression, anger, hostility, fear and sorrow etc. An individual is said to be emotionally adjusted if he is able to successfully cope with the emotional disturbances.

- Social adjustment

Humans have to make a lot of social adjustments as well to maintain harmonious relationship with their social environment. If a person avoids or hesitates to be a part of his social surroundings for whatever reason, he can be said to have poor social adjustment.

- Home adjustment

Home is the source of greatest satisfaction and security to its members. The relationship among the members of the family and their ways of interacting or communicating with each other plays a leading role in the adjustment of an individual with himself and his environment.

A person is said to have a good home adjustment if there is healthy communication between him and his family; his physical, emotional and psychological needs are respected and fulfilled by other members of the family; and he finds his home safe and harmonious.

- School adjustment

Students may have different levels of satisfaction with their school building, its discipline, co-curricular activities, method of teaching, class and schoolmates, teachers, heads of the institution etc. if a child is generally and broadly satisfied with most of these variables, he will show good school adjustment and vice versa.

- Occupational adjustment

Every occupation calls for a variety of adjustments. The degree of satisfaction with the choice of occupation, working conditions, relationship with colleagues and superiors, financial satisfaction, chances of progress etc decide one's adjustment to one's occupation and contribute to occupational adjustment.

ACADEMIC ACHIEVEMENT

Education equips a child with skills and competence essential to live a meaningful life. The academic achievements of a child, particularly in the school, may thus have a crucial role to play in his later life.

Academic achievement has been defined by English and English (1958) as the attained ability to perform school tasks. This attained activity may be general or specific to a given subject matter. The achievement of the students in the courses, syllabi,

subjects and books studied by them, and expressed in the form of grades, percentages or on any other scale can be termed as 'academic achievement'. [19]

Academic achievement is affected by congnitive as well as non-congnitive aspects of personality of a child. The psychologists, educators, and counselors have been trying to achievement. Many students with intelligence considered sufficient for scholastic success have shown poor academic achievement. This has resulted in more emphasis being placed on the non-intellectual variables of the personality of a child.

Various investigations have explored the factors which can be responsible for academic success or failure. Such factors can be well as non-intellectual.

Intellectual factors

Intelligence is a primary factor that influences student's achievement. A number of studies have shown that the pupils with higher intelligence level tend to learn more quickly, retain for a longer period of time, perform better in academic affairs and would hold high positions in the classes compared to the less intelligent pupils.

As singh (1976) says that a highly intelligent student is bound to be a high achiever even if he is subjected to unfavorable conditions. [20]

In absence of intellectual abilities, high scholastic achievement is not likely. At the same time, mere presence of superior intelligence does not ensure high achievement. According to child (1964), Intelligence Quotient gives only a limited idea of how a child would succeed in the school or college. [21] Spies (1965) are of the view that the non-intellective measures are no less important in determining the level of academic achievement of any child. [22]

Non-intellectual factors

Many studies based on scientific investigation have shown that even pupils of superior intelligence are under achievers, while some pupils with average intelligence achieve more than what is expected of them. Researchers trying to show relationship between intelligence and academic achievement have found only a moderate degree of correlation. Therefore, non-intellectual factors are no less important than the intellectual factors in their impact on the academic achievement.

One of the most important non-intellectual factors is adjustment in general. [23] If a child suffers from maladjustment at

home or is not able to adjust to health, peers, society or the surroundings, his academic performance is likely to be adversely affected. Some social scientists are of the view that superior academic achievement may be considered to be an evidence of successful adjustment. Higher the problems of adjustment of any front, lower would generally be the academic achievement.

Personality is another non-intellectual variable which greatly affects the scholastic achievement of a child. [24] Various studies have been made, using psychological tests, to correlate personality variable with the achievement of pupils and most of them have found that personality factors such as level of aspiration, anxiety, self-concept, self-esteem and mental health as a whole has a significant effect on the academic achievement of students.

While academic performance was conceived for ages to be almost exclusively a function of intelligence and academic aptitude, the educationists and psychologists are now unanimous in appreciating the importance of achievement motivation. A number of studies have highlighted the relationship between higher achievement motivation and higher academic performance.[25]

Another important factor which contributes to the academic performance of a child is parental behavior. The extent to which the parents show affection openly towards the child, show

approval of and take pride in the child, and the extent to which they show sensitivity to his personal needs, etc., all affect his academic achievement. Parental aspirations and expectations too are seen to affect the academic performance of a child. Low parental aspiration and expectations lead to low academic performance in children and viva versa. [26]

Socio-economic status of the family is also considered important in academic achievement of a child because higher the socio-economic status better would be the educational facilities available. Secondly, it may also influence a student's attitudes, interests, values, motivations etc., which will greatly affect his academic accomplishment. [27] Ramaji Rao (1977) also opines that socio-economically disadvantaged children are poor in academic achievement due to poor study habit, lack of proper teaching facilities in the schools in which they study, and shorter tenure of teachers' handling their chasses. [28] Socio-economic status is thus positively seen to be associated with the academic achievement of the students.

The importance of student's school behavior is another factor which can not be overlooked. The behavior of the student with its classmates, his attitude or relationship with his teachers, and their acceptance or otherwise of his behavior by them, are the

matter of significance so far as the academic achievement is concerned. [29]

Parental education too plays an important role in academic achievement of a child since educated parents are in a much better position to guide the child regarding methods of study and offer him general guidance in a number of ways. [30] The fact that the parents are educated or highly-educated puts by itself some sort of psychological pressure on the child to show better academic performance.

PROFESSIONAL EXPECTATIONS

The one question which no child or adolescent ever escapes being asked is: "what do you want to be when you grow up?" This query itself makes a person dream about the ultimate occupation that he or she is going to take up in future.

Children are now getting to know of the world at large at a comparatively very early age due to the onslaught of media. Television and movies have been instrumental in raising their expectations in every sphere. It is during this crucial period of adolescence, when changes in social role, cognitive development, school transitions and the emergence of sexuality, all take place. Social status becomes a part of the goals to be achieved. It is also a period when vocational interests develop and the desire to

achieve economic independence takes it hold. This is the time when professional expectations start taking roots. According to Rice (1981), one of the tasks of adolescence is to organize one's plans and energies in such a way as to begin on orderly career to feel able to make a living. [31] By the time a person reaches adolescence, he or she would have made at least a tentative choice of his or her profession or developed some profession expectation.

Family affects significantly a person's choice of profession.[32] An adolescent's vocational expectations and development are influenced greatly by his family background and his interaction with his parents and other elders in the family. [33] It is not uncommon for most people to list their parents, followed by friends, teachers, counselors and siblings, as responsible for their career expectation or choice. [34] In India particularly, a large majority of adolescents tend to take up their family profession.

The socio-economic status of the family also often plays an important role in determining the professional expectations.[35] A study by Sundararajan and Rajasekar's (1988) on the vocational aspirations of higher secondary students in Chennai found that the students whose parents belong to high or middle income group have a better level of vocational aspirations than those whose parents belong to low income group.[36] Adolescents from higher socio-economic strata have been found to show significantly

greater interest in the vocations of literacy, scientific, artistic and persuasive field as compared to the adolescents from low income group families. A study by Raina (1987) on vocational preferences of secondary school students of Kashmir valley found that the higher income group students preferred mostly the vocations of engineering, medicine, tourism, hotel management, police and business, while the boys belonging to the low-income group preferred teaching, agriculture, typing, forestry, art & crafts, dairy farming, packing and embroidery. It was also observed that the middle-income group preferred the professions of fishery, television and radio mechanics, police service, medicine, typewriting, and hotel management. [37]

Gender is another crucial determinant of the course of life of an individual, particularly in India where some professions are almost meant to be for women alone. The studies have revealed that from an early age, body and girls tend to aspire and prefer different vocations, and there are extensive gender differences in professional aspirations. Studies have also shown that sex stereotyping of vocations starts at the very tender age and it affects greatly the professional choice and carrier development. [38] According to stockyard and MCGee (1990), the most preferred vocations for the boys are scientists, police officer, artist, farmer, carpenter, and architect, and for the girls, preferred professions

are nursery school teacher, artist and secretary. They also found that while the least preferred vocations for boys are dancer, hairdresser, secretary and nursery school teacher, the vocations with least preference amongst girls are truck driver, T.V. repairer, pilot and judge. [39] Studies by Marini & Greenberger (1978) indicate that boys aspire to a higher level of vocations as compared to girls. [40] Studies done in India have revealed that boys at the school stage have greater familiarity with the world of work than girls of the comparable age. [41]

Siblings and peer groups too have enormous amount of impact on the professional expectation of a child. The oldest child's success and satisfaction in a particular vocation may influence the younger siblings to adopt the same profession. On the other hand, sibling rivalry may induce a younger brother or sister to follow a different profession and show greater level of achievement. Peers groups impact the professional preferences in the similar manner.

Self-concept is an important aspect of personality, which affects the professional aspirations. [42] Asha and Johnson (1994) opine that clear understanding of one's self, aptitudes, abilities, interests, ambition, resources and limitations will contribute greatly to the professional aspirations being realistic. On the other hand, lack of information or awareness regarding one's won

characteristics is likely to lead to lesser degree of vocational maturity. [43]

Other specific determinants of professional expectation may be the prevailing socio-economic scenario in the country, social issues, chances of getting employment, and the facilities for vocational training and guidance in the chosen field.

RATIONALE BEHIND THE PRESENT STUDY

The persons suffering from visual, orthopedic or hearing impairment are as much a part of our society as the other so-called 'normal' human being are. They too have the same right to parental care, love and affection of others around them, education and employment as the rest of us have. But, somehow, this important components of our society remains neglected and uncared for. The mad race for materialistic achievements has made us forget our less fortunate brethren.

If we knew their real problems and challenges before them, we can take effective steps to assist them meaningfully in facing the same. This way we can make them as much a useful component of our society as any other component is.

This research work will concentrate on the hearing-impaired population, firstly, because the hearing-impaired population gets the least attention of the society for the reason that their handicap

is not visible to eye, and hence their existence goes unnoticed generally. Secondly, during the pilot study, it was found that very little research has been done in respect of hearing-impaired as compared to other handicaps. Whatever research has been done on the hearing-impaired people is concentrated mainly on the medical physiological aspects of hearing impairment, its prevention and cure, while no significant study had been done in respect of psychological and rehabilitation aspects of hearing-impairment.

In order to study the psychological and rehabilitation aspects, three variables, adjustment, academic achievements and professional expectations, are proposed to be taken up. 'Adjustment' variable has been chosen in order to see as to how well a hearing-impaired person interacts or adjusts with his environment or how well he deals with the problems faced in his environment or with the one, which are caused due to his environment. In other words, it is proposed to study his level of adjustment with the members of his family, with social environment, and his own health and emotions. The study of academic achievement, is taken in order to ascertain the factors, which may be leading to low academic performance in the hearing-impaired population.

The study of professional expectations is proposed to be undertaken in order to make an in-depth assessment of the comparative employment and rehabilitation scenario in respect of the hearing-impaired persons. It will be of advantage to ascertain their professional and the difficulties they are facing or will face in achieving those expectations.

FOOTNOTES

1. Ruth E. Blender, The Conquest of Deafness, London and Cleveland : The Press of Case Western Reserve University, 1970 quoted by Surendre M. Verma, Social Integration of the Deaf, New Delhi : Northern Book Centre, 1999, p. 28-29 ; Wallace W. Taylor, and Taylor, Services for the Handicapped in India, Bombay : Western Printers and Publishers, 1977, p. 13-14 ; Rama D. Mani, Physically Handicapped in India : Policy and Programme, New Delhi : Aashish Publishing House, 1988, p.224 ; Amina Sen, Psycho- Social Integration of the Handicapped: A Challenge to the Society, Delhi : Mittal Publications, 1988, p. 366.

2. This data is soured from the official website of the census of India i.e. http:www.censusindia. net/ .

3. Hardy G. William, Children with Impaired Hearing : An Audiologic Perspective, Washington: Government Printing Office, 1952, p.1 .

4. L.M.Dicarlo, The Deaf, London: Prentice Hall, 1964 ; K.W.Hodgson, The Deaf and their Problems : A Study in Special Education, London:Watts, 1953 ; H.S.Schlesinger and K.P.Meadow, Sounds and Sign: Childhood Deafness and Mental Health, Barkeley : University of California Press, 1972.

5. Ibid.

6. Ibid .

7. R. Pinter, J. Eisenson and M. Stanton, The Psychology of the Physicaaly Handicapped, New York : Crafts, 1941.

8. Uddin Hassen, Normal and Handicapped Children – A Comparative Approach, New Delhi :Ashish Publishing House, 1995.

9. Amina Sen, Psycho- Social Integration of the Handicapped : A Challenge to the Society, Delhi: Mittal Publications, 1998, p.366.

10. E. Rawis and Hetherington, The Development of Deaf Children, Chicago : The University of Chicago Press, 1975.

11. W. Hess, Presonality Adjustment in Deaf Children, Unpublished Doctoral Dissertation, University of Rochester quoted by Aruna Jyothi and Ramana Reddy, " A Comparative Study of Adjustment and Self Concept of Hearing Impaired Children and Normal Children", Journal of Psychological Researches, 1996, Vol (40),no.3.

12. Surendre M. Verma, Social Integration of the Deaf, New Delhi: Northern Book Centre, 1999, p.131-144.

13. K.P. Meadow, "Maternal Reinforcement And Help And The Achievement Motive in Hearing and Hearing Impaired Children", Developmental Psychology, Vol 10, 1974, p.348-353; and M.S.Stinson, "Maternal Responses to the Medical Ambiguities Of Deafness", Journal of Health and Social Behaviour, Vol 9, 1968, p.299-309.

14. Aruna Jyothi and Ramana Reddy, "A Comparative Study of Adjustment and Self Concept of Hearing Impaired and Normal Children", Journal of Psychological Researches, 1996, Vol 40(no.3), p. 94-97.

15. A. Neyhus, "The Social and Emotional Adjustment of Deaf Adults", Volta Review, 1964, Vol 66, p.319- 325 ; and M. Lata, "The Study of Psycho-Social Adjustment of Hearing Impaired Children", Journal of Psychological Researches, 1996, Vol 40(no.3), p.129-131.

16. Kaplan B.Howard, Psychological Stress, London: Academic Press, 1993.

17. A.A.Schneider, Personal Adjustment and Mental Health, New York: Rinehart and Company, 1958.

18. R.S.Lazarus, Patterns of Adjustment, Tokyo: McGraw hill, 1976.

19. H.B. English and A.C. English, A Comparative Dictionary of Psychological and Psychoanalytical Terms, New York: Longmans and Green, 1958.

20. B.N.Singh, Non-intellectual correlates of academic achievement, Allahabad: Indian International Publication, 1976, p.2.

21. D. Child, "The Relationship between Introversion-Extraversion and Performance in School Examination", British Journal of Educational Psychology, Vol 34, 1964, p.187-196.

22. C.J.Spices, "Some Non-intellectual Predictors of Classroom Success", Dissertation Abstract, Vol 26, 1965, p.7442.

23. D.E.Lavin, The Prediction of Academic Foundation, New York: Russell Stage Foundation, 1965; S. Rao Narayana, "A Prognostic Study of Achievement in relation to Academic Adjustment: Brief review of the pertinent pervious work(School adjustment and academic achievement)", Indian Educational Review, Vol 7, 1971, p.196-213 ; D.M.Johnson, "Personality differences between low high achieving boys using the personality inventory for children", Dissertation Abstracts International, Vol 32, 1971, p.241; and J.R.Watson, "An examination of the relationship between selected personality and biological factors and the ability to predict academic achievement", Dissertation Abstract International, Vol 33, 1973, no.5571.

24. D.Sinha, "Academic Achievers and Academic Attainment", Indian Educational Review, Vol 5, 1970, 59-63 ; Radharani Sharma,"Self concept, Level of Aspiration and Mental Health as factors in Academic Achievement", Indian educational review, 1981; and I.Thomas and Raj H.Sananda, "Self esteem and Academic Achievemrnt: A study of Ninth Grade Students", Educational Researches, Vol 6(no.3),1982.

25. J.L.Cole, "The Relationship of Selected Personality Variables to Academic Achievement of Average Aptitude of Third Graders", Journal of Educational Reserches, Vol 67, 1974, p.329-333;

26. S.G.Khan, "Affective correlates of Academic Achievement", Journal of Educational Psychology, Vol 60, 1969, p.216-221.

27. Robert C.Nichols and James A.Davis, "Characteristics of students of high Academic Aptitude", Personnal Guidance Journal, Vol 42, 1964, pp.794-800.

28. Ramaji Y.Rao, "Socio-economically disadvantage children and their achievement", Journal of Educational Researches, Vol 1 (no.2), 1977.

29. F.P.Rice, The Adolescent, London: Allyn and Bacon, 1981.

30. S.Palmer and L.Cochran, "Parents as agents of Career development", Journal of Councelling Psychology, Vol 35(1), 1973, p.71-76.

31. R.W.Henderson and C.B.Meritt, "Environment background of Mexican-American children with different potentials for school success", Journal of Social Psychology, Vol 75, 1968, p.101-106; N.J.Pallone, R.B.Hurley and F.S.Richard, "Further data on key influences of occupational expectations among minority youth", Journal of Counseling Psychology, Vol 20, 1973, p.484-486; and B.K.Steinke and H.R.Kaczkowski, "Parents influence on the occupational choices of 9th grade girls", Vocational Guidance Quarterly, Vol 9, 1961, p.101-103.

32. S.A.Basow and K.G.Howe, "Model influence on carreer choice of college students", Vocational Guidance Quarterly, Vol 27, 1979, p.363-387; M.Davies and D.B.Kandel, "Parental and peer influences on adolescent's educational plans:some further evidence", American Journal of Sociology, Vol 87, 1981. p.363-387.

33. S.Suudarajan and R.Chandra, "The occupational aspirations of the higher secondary students of the matriculation schools in Salem town", Experiements in Education, Vol XIX (2), 1991, p.44-50; and R.W.Henderson and C.B.Merrit, op.cit.

34. D.E.Super and P.L.Overstreet, The vocational maturity of ninth grade boys, New York: Columbia university, 1960 ; and J.O.Crites, Vocational Psychology – The study of vocational behaviour and development, New York: McGraw Hill, 1969.

35. K.Sharma, B.P.Verma and V.D.Swami, "A comparative study of vocational interests of socioeconomicaly advantaged and disadvantaged adolescents", Journal of Education and Psychology, Vol XXXXVIII(4), 1991,p.118-122.

36. B.L.Raina, "Vocational perfernece of secondary pupils of Kashmir valley", India Educational Rewiev, Vol XXII, 1987, p.39-47.

37. J.Stockard and J.Mcgee, "Children's occupational preference: The influence of sex and perceptions of occupational characteristics", Journal of Vocational Behaviour, vol 38(1-3), 1990, p.267-303; and P.Selkow, "Effect of maternal employment on kindergarden and first grade children's vocational aspirations", Sex Roles, Vol 11, 1984, p.677-690.

38. J.Stockard and J.Mcgee, op.cit.

39. M.M.Marini and E.Greenberger, "Sex differences in Occupational Aspirations and Expectations", Sociology of Work and Occupations, Vol 5, 1978, p.147-178.

40. S.S.Srivastava, "Sex and grade differences of students occupational choices as influenced by their fathers occupational expectations", Journal of Psychological Researches, vol 3, 1972, p.161-163; and P.H.Mehta, R.K.Mathur and D.Pant, Influences on Level of Occupational Aspirations of Adolescents, Mimeographed research report, New Delhi: NCERT, Department of Educational Psychology, 1985.

41. D.E.Super, The Psychology of Career, New York : Harper and Row, 1975.

42. C.B.Asha and R.Johnson, "Vocational maturity and selfconcept", Journal of Psychological Researches, Vol 38(1-2), 1994, p.30-33.