ED 386 844 EC 304 233

AUTHOR	Takala, Marjatta
TITLE	"They Say I'm Stupid, but I Just Don't HEAR": Hearing-Impaired Adults' View of Finnish Society. Research Report 142.
INSTITUTION	Helsinki Univ., (Finland). Dept. of Teacher Education.
REPORT NO	ISBN-951-45-7004-9; ISSN-0359-4203
PUB DATE	95
NOTE	196p.; Ed.D. Dissertation, University of Helsinki.
AVAILABLE FROM	University of Helsinki, Department of Teacher Education, P.O. Box 38 (Ratakatu 6A), Helsinki, Finland 00014.
PUB TYPE	Dissertations/Theses - Doctoral Dissertations (041) -- Tests/Evaluation Instruments (160)
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	Adults; *Attitudes; Communication Problems; Data Collection; Deaf Interpreting; *Deafness; Educational Experience; Elementary Secondary Education; Evaluation Methods; Foreign Countries; Mainstreaming; *Partial Hearing; Participant Satisfaction; Questioning Techniques; Research Methodology; Sign Language; Social Behavior; *Social Experience; *Social Integration; Special Schools; Values
IDENTIFIERS	*Finland

ABSTRACT

Experiences of Finnish adults with hearing impairments (n=186) and their views of Finnish society were studied, and methods of collecting data were compared. Study questions focused on knowledge about and satisfaction with Finnish society, participation in activities, and values and attitudes. Respondents who were deaf (n=77) and those who were hard of hearing (n=109) both experienced communication problems. Respondents who were deaf considered themselves to be a language minority, depended on sign language, preferred to associate with people who were deaf, and used an interpreter with the hearing society. Individuals who were hard of hearing tried to integrate with the hearing majority and had significant communication problems in noisy situations and in groups; very few learned sign language. In collecting data, personal contacts with signing provided the most information. Signed videos were effective with persons who were deaf, while written questionnaires were the least effective. Background information for the study considers: oral and manual communication methods; special schools and mainstreaming; speech, reading, and writing; and viewing deafness as being a cultural minority. Study questionnaires are appended, as are five published articles describing study results. (Separate sections contain references; 15 figures and 13 tables are included.) (SW)

h Report

142

Marjatta Takala

"They say I'm stupid, but I just don't HEAR"

Hearing-impaired Adults' view of Finnish Society

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Research Report 142

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of Finnish Society

Academic dissertation to be publicly discussed by due permission of the Faculty of Education in the University of Helsinki, in the Festivity Hall at the Department of Education, on the 9th of June, 1995, at 12 o'clock.

Helsinki 1995

NORDIC ENVIRONMENTAL LABEL
411 011
Recyclable product with low
emissions during production
Hakapaino Oy, Helsinki 1995

ISBN 951-45-7004-9
ISSN 0359-4203

University of Helsinki, Finland
Faculty of Education, Department of Teacher Education, Special Education Section

Takala, Ulla Marjatta

"They say I´m stupid, but I just don´t HEAR!"
- Hearing-Impaired Adults´ Views of Finnish Society (85 + appendix 33 pp+ studies I-V)

ABSTRACT

The primary purpose of this study was to find out how hearing-impaired adults (N =186; deaf =77, hard-of-hearing =109) view Finnish society: how much they know about Finnish society, how satisfied they are with it, how much they participate in various activities, what their most important values are and, finally, what their attitudes are toward different groups of people in society. A secondary purpose of the study was to investigate the effectiveness of the methods used to obtain data.

Two sources of data were employed: questionnaire (both written and signed) and written narratives entitled "My life as a hearing-impaired person in Finnish society." Some subjects were met personally. The results from the questionnaires were analyzed with t-tests, factor analysis, ANOVA and regression analysis; content analysis was used with the life stories.

Analysis of the data showed that the deaf and hard-of-hearing subjects had differing views of society, but that both groups experienced communication problems. The deaf consider themselves to be a language minority rather than a group of handicapped people. Because of their dependency on sign language the deaf had a minority solution for coping in society. They preferred to associate with other deaf persons, and when interacting with the hearing society, in an important matter, they used an interpreter. Hard-of-hearing subjects demonstrated an isolation solution for coping. They tried to integrate with the hearing majority, and very few learned sign language. The data indicated significant communication problems in noisy situations and in group communication contexts.

An analysis of the data gathering techniques showed that personal contacts provided the most data, with the use of signed videos also being effective with deaf subjects. Least effective with deaf subjects was the use of written techniques, such as written questionnaires.

Although the use of video questionnaires increased motivation to complete the survey, it did not produce more right answers to those questions regarding knowledge of Finnish society. Varying results were obtained from the use of qualitative and quantitative methods: the questionnaire studies produced a rather positive view of society, whereas the life study method revealed many everyday problems. A substantially more differentiated view of society was obtained by using both kinds of data gathering techniques.

Keywords: view of society, deaf, hard-of-hearing, hearing-impaired, communication, dimensions of society

ACKNOWLEDGEMENTS

This study has been carried out in the University of Helsinki, in Faculty of Education and precisely in Special Education Section. Many people have been helping and encouraging me during my writing process. The most important persons conserning this research have been the deaf and hard-of-hearing people who took part in my study and I want to thank them firstly.

I'm grateful to my tutor and supervisor professor Jarkko Hautamäki for his intensive encouragement and many good, rapid advice. I also want to thank professor Jaakko Salminen and professor Ulla Lahtinen for their constructive critisism.
Special education section is a very innovative place to work in and I want to thank all our staff for their interest and comments.
My special thanks to Jorma Kuusela for his great patience when he helped me with the statistical analyses and for his time spent in discussions about my thesis.
It was a pleasure to write one article together with Ullamaija Seppälä, I want to thank her.
Sincere thanks to professor Henry Fullenwider, who took care of my english. However, he is not responsible for the mistakes I have made after his comments.
I also want to thank Riitta Lahtinen who signed my questionnaires.
I'm grateful to my parents, Iso and Eppu (as my sons call them) for the time they gave me by taking care of the boys when ever needed, and for their encouraments.

My work has been financially supported by the Finnish Federation for the Hard-of-hearing and the Finnish Association for the Deaf, which is gratefully acknowledged.

Finally, I thank my husband Esa-Pekka and my lively sons Pyry and Otso for their love patience and tolerance which have been most important to me.

Three gentlemen in a train as it comes into a station: "Ah it's Weston." "Wednesday?" says the second. "I thought it was Thursday." "Thirsty?" says the third. "I am too. Let's have a drink." (Kisor, 1990)

LIST OF ORIGINAL PUBLICATIONS

The thesis is based on the following publications

Study I
Takala, M. (1994) The Deaf Adults' View of Finnish Society.
American Annals of the Deaf, 139/4, 400-403.

Study II
Takala, M. (1994) The Views of Hearing-impaired Finns on Society:
Knowledge, Satisfaction, Activity, Values and Attitudes.
Scandinavian Journal of Social Welfare, 3/1, 31-38.

Study III
Takala, M. (1994) "They think I'm stupid, but I just don't HEAR!" The Life Stories of Hard-of-Hearing Persons in Finnish Society. Accepted to Scandinavian Journal of Social Welfare in autumn 1994.

Study IV
Takala, M. & Seppälä U. (1995) My Life as a Deaf Person in Finnish Society. Stories about Being Deaf. Accepted to JADARA (Journal of the American Deafness and Rehabilitation Association) in January 1995.

Study V
Takala, M. (1993) En jämförelse av tre frågemetoder vid undersökning av döva personer. (Comparison of Three Approaches When Questioning Deaf People) Nordisk Tidsskrift for specialpedagogikk (Scandinavian Journal of Special Education) 4, 217-221.

These studies will be refered to in the text with Roman numerals, e.g. Study I, II, III, IV and Study V.

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PART A

1. INTRODUCTION

When we walk in a city and see a person sitting in a wheelchair trying to make a phone call, we see the practical problem s/he has. If a person has hearing problems and wishes to make a phone call, no passerby notices the problem. Although the hearing impairment is invisible, it causes many problems. The hearing-impaired people live among the hearing and have the same citizenship. Still they face many problems which the hearing are unaware of: waiting for a train and not hearing the announcement that the train is two hours late, or waiting for a doctor and trying to lip-read the name the receptionist is calling or saying ten times a day : "Could you repeat that please/ speak a little louder/ clearer/ slower, please."

We have about 300 000 people with hearing problems in Finland and of these about 8000 are deaf; of these deaf people 5000 use sign language as their main communication method (Raivio, 1980; Savisaari & Vanne, 1979; The Finnish Association of the Deaf, 1992). Because of the hearing loss these people face communication difficulties almost every day; they are misunderstood, they drop out of conversations, they don't get enough information.

The subject of my licentiate work (Takala, 1989) was the functional reading ability of deaf adults. Their ability seemed to be good enough to satisfy their daily needs and they managed in everyday situations with their reading competence. However when the text was more demanding, problems occurred. The deaf have their own language, sign language; but when going to a shop, visiting a doctor, etc. they have to use a foreign language, Finnish Although their first language is usually Finnish, hard-of-hearing can also have difficulties with the normally hearing society. Hearing is considered to be a very important element in communication. If a person has problems with his/her hearing, communication is often unsuccessful.

The first purpose of this research was to study how these hearing-impaired people see Finnish society? What is their view of society? Studying the method was another aim of this research. What is a good way to use questionnaires? Are written questionnaires sufficient? Should they be signed, or would a personal contact be more reliable? Can life stories be used in this kind of study? Is a qualitative or a quantitative method better when studying the view of society hearing-impaired adults have? Finding answers to these questions, and then understanding the view of Finnish society the hearing-impaired have, are the main purposes of this research.

This research comprises five studies; four studies deal with the view of society hard-of-hearing and deaf adults have followingly:
Study I: The Deaf Adults' View of Finnish Society, (Takala, 1994), dealing with the same issuses as study II but from the point of view of deaf participants.
Study II: The Views of Hearing-impaired Finns on Society: Knowledge, Satisfaction, Activity, Values and Attitudes, (Takala, 1994),
Study III: "They think I'm stupid, but I just don't HEAR!" The Life Stories of Hard-of-Hearing Persons in Finnish Society, (Takala, 1995) and
Study IV: My Life as a Deaf Person in Finnish Society. Stories about Being Deaf, (Takala & Seppälä, 1995).
The last article discusses the research methodology and it is called
Study V: En jämförelse av tre frågemetoder vid undersökning av döva personer, (Takala, 1993) (Comparison of three approaches when questioning deaf people). It has been published in Swedish, but an English version is enclosed at the end.

The research techniques are both qualitative and quantitative in order to obtain various data. Written questionnaires with multiple-choice questions, personal contact, sign language in video and written life-stories were used.

1.1. Methodological considerations

Formal sciences, such as mathematics, are based on thinking, while empirical sciences are based on observations and experiences. Education is an empirical science belonging to the social sciences (Niiniluoto, 1994). The scientific basis of this research is in education and, more precisely, in special education and partly in sociology.

The humanities are not always valued highly because they do not give quick results with material benefit (Kirkinen, 1994). This study is humanistic but also pragmatic (see Beck, 1979) because practical consequences are considered important. When studying a theoretical concept, such as the view of society, positivistic methodology did not seem good enough, mainly because the results will be partly descriptive, nomothetical. When people tell about their own ideas and everyday life, their representations of the concept 'view of society', a hermeneutical orientation seems to be a suitable choice (Egidius, 1986; see also Gadamer, 1976). Hermeneutics suits studying social, psyhological and cultural phenomena (Andersson,1979). Habermas (in Egidius, 1986) says that different types of sciences have different interests, and one of the interests of the human sciences is to understand our own and other cultures better.

In sociology, the book "The Polish Peasant in Europe and America" was a starting point toward a new kind of methodology. Thomas and Znanieck were not interested in statistical facts in the lives of people, but rather in the subjective side of experiences. A social process was not studied statistically in their research but with personal documents, namely letters (Kon, 1979).

When a researcher wants to understand a text, a hermeneutical dialogue with the text is nessesary. This dialogue begins with a whole text, going into smaller parts, into details and again into the whole text. The interpretation of the text is part of the hermeneutical circle (see Haaparanta & Niiniluoto, 1994). In this research hermeneutical method has been used when studying the view of society in the life stories. Triangulation is also used in this research, meaning both a quantitative and qualitative approach to the view of society in order to receive a many sided picture. Using only one method gives a narrow viewpoint and that is why triangulation is useful (Kansanen, 1986). A positivistic approach can be seen through the statistical methods that are used to analyze part of the data.

It is typical of postmodern science and knowledge that knowledge is narrative, it is built together, and it is bound to linguistic structures (Wahlström, 1992). This is an interesting dilemma in this research because half of the participants have a nonverbal language as their primary language.

The view of society held by hearing-impaired adults, has not been studied before. To know the needs of Finnish hearing-impaired people is important and it was nessesary to approach them with different methods.

2. HEARING IMPAIRMENT AND COMMUNICATION

2.1. Hearing impairment

A major distinction between hearing losses is drawn between the conductive mechanisms of the ear and inner ear damage. Many kinds of conductive hearing difficulties are amenable to medical treatment, but if the nerves are damaged, there is nothing to be done (Webster, 1986).
Sound frequency refers to the speed of vibration of sound waves measured in Hertz. Speech contains a complex mixture of high- and low-frecuency sounds. It is possible to have normal hearing for low sounds and defective hearing for high sounds. If the hearing loss is high-frequency, the person has difficulties in hearing the beginnings and endings of words, when they are consonants. Most important frequencies for understanding speech are in the middle of the range, 500, 1000 and 2000 Hertz. The axis down the audiogram records the intensity of sounds. Whispered speech is about 20 dB, normal conversation is about 50-60 decibels. Sounds above 100 dBs are extremely loud and can be painful to normal hearing. A hearing loss of 120 dB means the person is unable to hear a jet aeroplane taking off (Webster, 1986).

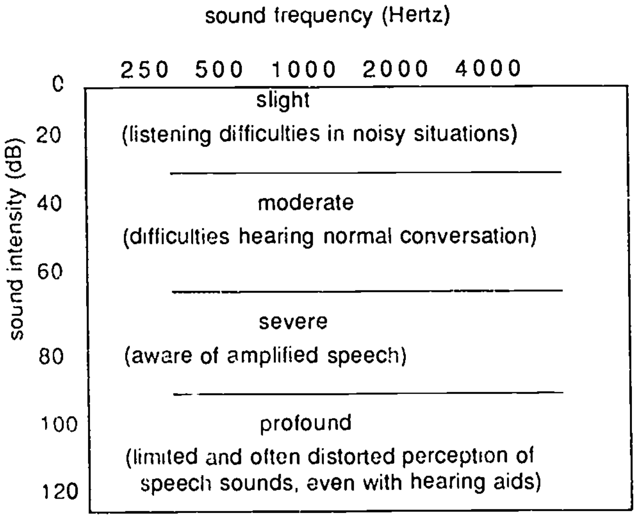

Figure 1: The audiogram and categories of hearing loss
(British Association of Teachers of the Deaf, 1981, in Webster 1986, 28)

The American Academy of Ophthalmology and Otolaryngology has presented a classification which relates the degree of hearing loss to the difficulty in understanding speech. It suggests that hearing losses of 40 dB or less produce difficulty in faint speech, and hearing thresholds of more than 40 dB produce difficulty with normal speech (Cantwell & Baker, 1987; Roeser & Downs, 1981; see also Jauhiainen, 1969).

The hearing-impaired are divided mainly in two groups according to the communication system, and this division is used in this research. If the person uses speech as the main communication method, s/he is considered hard-of-hearing. If the person doesn't have usable hearing and uses mainly manual methods of communication s/he is considered deaf.
These deaf persons can be grouped in three cathegories according to the age of onset, namely to the congenitally deaf who have been born deaf, and to the pre-lingually deaf who have lost their hearing before they have learned to speak, usually before the age of two. Then there is a group of people who are deafened after they have first learned to speak and lost their hearing after it. (Savisaari & Vanne, 1979; Raivio, 1980). This research concerns hard-of-hearing and congenitally or pre-lingually deaf people, the deafened are excluded.

At least 14 million people in USA became hearing-impaired as adults. Most of these persons are "culturally hearing". This means they have been raised with oral language and communication styles depending primarily on voice. These people divide themselves in two groups, those who are deafened and those who are hard-of-hearing. They need help in dealing with their anger, depression and loss of easy voice communication (Elliot & Glass, 1991). In Finland there are approximately 3000 deafened people (Sosiaalihallitus, 1990).

Tinnitus is a problem faced by many hearing-impaired people. It implies an auditory perception not heard by others. All studies report it is at best annoying to those who live with it. In a study by Drukier (1989) with 331 profoundly hearing-impaired children, 61% said tinnitus bothered them

A comment concerning the personality of hearing-impaired people is necessary. In older literature (before 1970) the deaf have been characterized as immature, selfish, etc. with negative adjectives (e.g. Myklebust, 1964; see also Sinkkonen, 1994). Sinkkonen (1994, 138) had a large group of deaf children in his study (N=414), and he found out that: "*It is not deafness per se but communication difficulties that create psychological problems in the deaf child. On the other hand, the hearing impaired child can be disturbed for the same reasons as the hearing child and the clinical manifestations can be understood from the same premises. There is no such thing as a 'typical deaf personality'.*"

2.2. Communication methods of hearing-impaired people

When choosing a communication system, the most important factors to weigh are the severity of the hearing loss, the age of onset of hearing loss and the hearing status of the parents (Moores, 1985). The communication methods of hearing-impaired people are primarily based on hearing or on sight. When a deaf baby is born into a hearing family, which is the usual case, the parents rely on experts in this language choice. Sometimes the experts disagree and the family feels it is alone with the problem.

2.2.1. Oral methods

The main distinction in communication methods is made between oral and manual methods; oral methods are recommended for people who have usable hearing left (Giolas, 1982). Usually hard-of-hearing people use oral methods (speech) with the help of hearing-aid and lip-reading as their main communication method, although oral methods are also offered to the deaf. The hearing aid is personal, adapted for its wearer's hearing loss. The most popular model is the post-aural hearing aid. However, in noisy places (restaurants, streets, etc.) where music or other background noise makes hearing difficult, it is not enough; the hearing aid also makes the background noise louder. In such places lip-reading is important (e.g. Webster & Ellwood, 1985).

Lip-reading demands good visual ability and concentration. Many words look alike, they seem to be homonyms (e.g. *m, b* and *p*) when spoken. Often knowing the context helps understanding. However, at best only 25% of speech can be lip-read without confusion (Webster & Ellwood, 1985; Davis & Silverman, 1970). To succeed, lip-reading demands good lighting, closeness to the speaker, clear articulation and a sufficiently slow tempo in speech (Giolas, 1982).

The tele-loop system, which is available in many public places, makes listening easier. It is a system were the microphone is connected into a small loop amplifier which goes around the room (Aho, 1980). The hearing-impaired can switch the hearing aid into the t-position and hear just the voice of the speaker with no background noise. Assistive devices, such as the hearing aid, tele-loops, telephone with amplification, etc. are important for the hard-of hearing (HH) people (Warland, 1990).

The MHS (mouth-hand-system) is a mixed system (oral and manual), using both hands and lip-reading. It was developed in Denmark (mund-hånd-system) to make lip-reading easier. It has handmarks for all consonants, which are made with one hand near the mouth. Vowels are read from lips because they are easier to lip-read than consonants which are more easily confused. The MHS was primarily meant for deafened and severely hard-of-hearing people (Dalas, 1984). It is much easier to learn this system in later life than a completely new sign language.

2.2.2. Manual methods

Manual methods are used mainly by deaf people. The main methods are sign language, fingerspelling and variations of signing.

Sign language is not at all well documented until the nineteenth century (Kyle & Woll, 1985). The debate whether sign language is a language or not is now almost over in Scandinavia. Linguists have proved that sign language is an independent language with its own structure and grammar (Kyle & Woll, 1985. Svartholm, 1984; Meadow, 1980; Rissanen, 1985; Klima & Bellugi, 1979). Many years educators and researchers relied on the old tradition according to which only oral languages qualify as languages, but that is changing now. In the USA research concerning the structure of sign language began in 1960, in Finland the first research was published in 1985 by Rissanen. William Stokoe (1960) was the first linguist who studied at the structure of signs in the same way as linguists study the structure of words. Oral languages and also sign languages have morphemes that are meaningless in themselves. Stokoe (1960) and Battison (1978) found that four elements in one sign are needed (in American sign language (ASL)) to distinguish one sign from other. These are location, handshape, movement and orientation of the hand. Sign language has its own rules, e.g. sign order uses primarily topic-comment structure (Kyle & Woll, 1985).

When defining a natural language, certain criteria as duality of patterning, arbitrariness, productivity, discreteness (Rissanen, 1985), are used. One of the criterias used to be that a language must be vocal; however, already Vygotski (1931) said that language is not only in a spoken form; the function of language, communication, is most important, more important than the means of communication: oral, manual or other.

There are various ways of signing (figure 2). Deaf people themselves use Finnish sign language (FSL), but many hearing people use signed Finnish (SF) (Rissanen, 1985). FSL is a language with its own structure, SF is a pidgin: the structure is from Finnish and signs are used to make Finnish understandable to the deaf, usually with little success. In English-speaking countries the term "pidgin sign English" (PSE) is used. A simplistic description of a pidgin is that it is a system where the vocabulary of one language (sign language) and the grammar of another language (e.g. English) are used together (Bocher & Albertini 1990).
In Finland signed Finnish (SF) is widely used at schools, or as it was formerly called, simultaneous signing (Rissanen, 1985; Savisaari & Vanne, 1979).

A system called Signing Exact English (SEE) is an auxiliary (artificial) language, created to serve educational and communicative functions (Bochner & Albertini, 1990; Caccamise & Newell, 1984). This and similar systems have been created to help educators to make words and affixes visible. Inventors of these systems have appealed to spoken and written languages, some of them even say they are complete representations of oral languages (Hsu, 1978, 1979). Teachers of the deaf use SEF (signing exact Finnish) where all endings are signed (e.g. *in a house* - *talo+ssa*) with artificial grammatical signs, mostly in Finnish language lessons. Finnish sign language (FSL) is difficult for many educators, it is hard to learn fluently in later life. If the educator has a deaf relative, s/he might know FSL, if not, s/he has to learn it in courses.

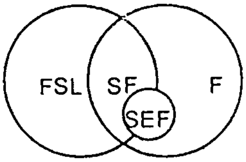

Figure 2: Different forms of signing
(FSL= Finnish sign language, SF= signed Finnish, SEF= signing exact Finnish, F= Finnish)

Total communication was created to help educators and other people who communicate with the deaf. In total communication signing, fingerspelling, writing, speaking and lip-reading are all used together (Levine, 1981; Quigley & Kretchmer,1982; Strong, 1990). Total communication easily leads to a pidgin language.

2.3. Inner language

Salmivalli (1992, 1) says that language, higher communication, abstract knowledge and thinking demand hearing in order to develop. That can't be true, because we have deaf students, deaf lawyers, etc. in the world. But what is the language a deaf person uses when thinking? What is his/her inner speech like? Webster (1986) quotes Conrad (1979) who writes that inner speech is linked to phonological abilities. He writes about reading and says that a reader decodes print into sounds. He gave deaf and hearing peers lists of homophones and non-homophones. According to the results obtained with hearing people, words which sound more alike are more difficult to remember, the similarity confuses people. In Conrad's studies many deaf people found no difference between these two kind of words. He consideres that those who showed confusion were users of an inner speech code. Webster (1986) says that inner speech is linked to the short-term memory, especially when the information is verbal, and that the lack of inner speech means limitations to the memory and may explain the difficulties deaf people have in oral language-related activities. However, Webster admits that deaf people have different inner coding systems, which are based on signs, fingerspelling or visual features.

Sacks (1992) quotes many authors (e.g. Bellugi, Neville) who have located sign language on the left hemisphere. This neurological fact also proves sign language to be a real language. Because of left hemisphere location, it seems that the brain interprets linguistic space in a different way than topographical space (Sacks, 1992).

Deaf adults have told that they see dreams where people sign. What is the inner speech of a deaf person like when s/he memorizes the words/signs of a poem, a song, a story?

3. FEATURES OF THE EDUCATION OF HEARING-IMPAIRED CHILDREN

3.1. Methodological debate

A charachteristic feature of deaf education is the debate around methods. The first schools for the deaf were established in Paris in 1770 by the French theologian Charles Michel de l'Epée (1712-1789). He used a sign method and that is why the French method is called the sign language method (Plit, 1984). The speech method, or the oral teaching, became known through a German teacher Samuel Heinicken (1727-1790), who established a deaf school in Leipniz in 1778. Already at the end of 1600 the first debate concerning methods in deaf education took place. Some of the educators were in favour of speech teaching and lip-reading, part of them supported fingerspelling and other manual methods. Those who were in favour of oral methods belonged in a German school and those in favour of manual methods in a French school (Plit, 1984).
Methods in deaf education have changed over the years from signing to oral method, then to total communication, and now toward the use of real sign language. Because the HH people have mainly been integrated, they have been taught usually in Finnish.

The reason for recommending oral teaching for deaf children, was the belief that during the sensitive period of language learning, teaching must be oral. If this critical period were not used, the child would take the easier way, manual communication, and would never later bother to learn to speak. Also the fact that the deaf have to live with the hearing majority and communicate with it, was stressed. Educators were afraid of the poor language environment that would result without oral teaching. However, later researchers have noticed that the poor language environment results if the child is prevented from using manual communication (sign language), curiosity about the environment diminishes and the poor language environment comes about (Heinonen, 1979).

An International Congress on the Education of the Deaf was held in Milan in 1880. After meeting good deaf speakers there, the participants decided that all teaching should be oral, with no sign language. The children could be punished if they used sign language. There were two main reasons for this strictness. 1) Sign language was not considered to be a language, it was said to be a primitive, gesture "language", without its own structure. 2) If children were allowed to sign they would never study oral language (Plit, 1984; Svartholm, 1984).

The methodological debate began in Scandinavia about 1840. Education of the deaf was influenced by the French method: writing and fingerspelling were important, but signs were also used. Some schools were influenced by the German method and some oral schools were established, but they were primarily for the deafened and the hard-of-hearing. However, in 1876 educators in Scandinavia began to demand the speech method. Separate speech classes and classes of manual methods for those who had not learned to speak were established in some schools. Instruction began in speech classes and then the pupils went to an A, B or C class. A and B classes used only the speech method and C classes used a writing method in which the main communication systems were written language and fingerspelling (Plit, 1984). 'Oral failures' was a nasty phrase applied to pupils in C classes. Beginning in 1880 state deaf schools were established in all Scandinavia. There were speech schools and writing schools, without sign language. Many schools were residential (Plit ,1984).

Teaching the language of child's environment, namely oral language, has been central in curricula for the hearing-impaired. In 1950 and in 1960 the technical development of hearing aids gave support to oral teaching. Not before 1973 was sign language discussed in the curricula (Kuulovammaisten koulujen opetussuunnitelman erityiskysymyksiä, yleinen osa, 1973). Then it was mentioned mainly as an auxiliary method without any instructions of how to use it. The curriculum from 1980 doesn't mention sign language as a subject of instruction; signing is mentioned together with mother tongue (here Finnish), again as an auxiliary device (Kuulovammaisten koulujen opetussuunnitelma, ala-aste, 1980). Sign language as a subject of instruction is not mentioned in the curriculum until 1987 (Peruskoulun kuulovammaisten opetussuunnitelman perusteet, 1987). This curriculum mentions bilingual education and says that the emphasis is on educating the deaf in sign language. It also takes note of the fact that simultaneous signing is a pidgin language.

3.2. Education and early rehabilitation of hearing-impaired children in Finland in the 1990's

Finland had four state schools and fourteen municipal schools for the hearing-impaired (Suosalmi, 1986). but in 1993 the Swedish-speaking school was closed, so now there are only three state schools; Jyväskylä, Oulu and Mikkeli. Compulsory education for severely hearing-impaired pupils lasts eleven years, the pre-primary stage being two years, primary six years and secondary stage three years. The school year is the same as in ordinary schools (Koulusäädökset,1991).

The debate in Finland beginning in 1990 concerning methodology, has been more a debate about the signing skills of the teachers. Almost all teachers now sign, but how they sign is the question. Malm (1991) wrote that Finland had not granted deaf children the right to use their own language because only few teachers could sign well and most of them used signed Finnish, which is a pidgin (source not mentioned). Jokinen (1991) wonders why teachers so seldom discuss the fact that schools are unable to give enough knowledge and competence to deaf children. He answers this question by saying that children are taught in a language that they don't understand. This is a form of ideological racism according to Skutnabb-Kangas (1988). She emphasises the fact that it is important to be able to think in your own language, to solve problems in it, even problems which are difficult, then the language develops. Also the possibility to receive feedback about the solutions in one's own language is important (Skutnabb-Kangas, 1988).

The present author has visited several times five schools for the deaf, and the situation in language teaching has began to improve. Teachers know the problem of their sign language competence and would like to improve it. The situation in many schools is problematic, because deaf and HH pupils are often taught in the same classes: deaf pupils need sign language and HH pupils need Finnish.

The curriculum of sign language was published in 1990. It says that sign language is the first language of deaf pupils. The first language of HH pupils can be sign language, but usually it is Finnish or Swedish. However, HH pupils often benefit from sign language (Viittomakielen opetussuunnitelman perusteet, 1990).

The two associations, The Finnish Federation of the Hard-of-hearing and the Finnish Association of the Deaf have a somewhat different outlook on the use of sign language with children (Viittomakielen asema, 1990). The Finnish Federation of the Hard-of-hearing emphasizes more the use of residual hearing, and the Finnish Association of the Deaf advocates the use of sign language only. Because the responsibility for the rehabilitation of hearing-impaired children under 16 years rests with the Finnish Federation of the Hard-of-hearing, this leads more to oral methods. In 1992 this federation had 12 rehabilitation guides for 620 children including 502 school-aged and 118 pre-school children (Lasten kuntoutusohjaus, 1993).

The families of pre-school hearing-impaired children meet with audiologists, psychologists, rehabilitation secretaries, etc. A person who is met many times is the rehabilitation secretary S/he visits the family and gives advice on e.g. methods of communication, the choice of a suitable day care system and finally a suitable school for the child (Lasten kuntoutusohjaus, 1993). Sign language is a new language for most families, and they rather prefer oral methods in the hope that the child will begin to speak. Because the exact graveness of the impairment of a small child is difficult to determine (Ikonen, 1980), the hope of residual hearing can sometimes be realistic, and the choice between manual or oral language is not easy. However, "oral training for young deaf children has not had great success" (Marschank, 1993, 109). It seems that early education and school education could be better organized from the point of view of language development.

3.3. Integration

Mainstreaming special children has received support all over and also in Finland. In 1987 864 pupils were receiving special education for the hearing-impaired, which was 0.1% of the school-aged children (Tilastokeskus, 1991). During the 1992-1993 school year 778 pupils were receiving special education in the state and municipal schools, including 245 deaf and 106 hard-of-hearing children (The Educational Policy of the Deaf, 1994). Those who have mild (< 25 dB) or moderate (<50 dB) hearing loss usually attend ordinary schools (Mäki, 1987). Pupils who have profound hearing loss are seldom integrated and only 10% are integrated for more than three hours of instruction per day (Allen, 1992).

Mäki & Tastula (1991) report positive results, those pupils who have a mild or moderate hearing-loss have been successfully integrated into normal schools and their self-image has been good. However, Gregory and Bishop (1989) have shown that a deaf child does not experience normal education just by being in a normal class. The natural language environment, the wider curriculum and social integration which are the aims of mainstreaming are not fulfilled. Murphy and Newlon (1988) found that integrating deaf and hard-of-hearing college students means loneliness for these people. Integrating deaf children with hearing children at school seldom leads to social integration, usually only to physical integration (Walsh & Elredge, 1991; Ihatsu, 1987). Tvingstedt (1993) studied the success of integrating hard-of-hearing pupils into normal schools, and concluded on the basis of sociometric studies that 47% of the teenaged hearing aid users were not chosen as companions in grades 7-11 as compared to their hearing classmates. Kyle (1993) had similar results focusing on isolation in mainstream. It seems that integration can lead to loneliness, but in some cases it is a good choice.

4. THE LANGUAGE OF HEARING-IMPAIRED PEOPLE

4.1. Learning the first language

Language is important in society, to be able to write and speak is nearly compulsory in all jobs. Integration into society requires the ability to communicate.

Deaf and HH babies have the same language ability as hearing babies. They babble at first , but when the deaf babies don't get auditive feedback, they can stop babbling (Smith & Neisworth, 1975). Deaf babies have also been noticed to mabble, meaning manual babbling. Mabbling has the potential to include cheremic components of signs, such as hand shapes or movements. This kind of mabbling has social meaning just as babbling does (Marschank, 1993). A mild hearing loss is more difficult to notice than a severe one and can be unknown for many years. Usually unusual speech or the missing of speech reveals the hearing loss.

Because most deaf children (90%) are born to hearing parents, the language learning process is different than usually. The parents have to learn a new language and then teach this new language to their child as the child's first language. The term first language is used in this kind of a situation rather than mother tongue according to many researchers (Rissanen, 1985; Savisaari & Vanne, 1979; Rawlings & Jensema, 1977; Walsh & Elredge, 1991). However, some researchers define the term mother tongue to be the language a person has first learned and created his/her first relationships. The second language is the language the environment, where the individual lives, uses. A deaf person's mother tongue can be sign language and second language is Finnish (see Skuttnabb-Kangas, 1988)

The ability of the parents to learn a new language varies greatly. The disappointment of having a deaf child is often a fact, and the language-learning situation is emotionally stressful. The situation faced by deaf parents having a deaf baby differs completely from that of hearing parents having a deaf baby; a baby in a deaf family is exposed to sign language before the hearing loss is even noticed (Moores, 1990) and the language s/he learns is real sign language. A deaf child of hearing parents doesn't have a competent sign language model at home, perhaps s/he has no model at all. Parents may not want to sign publicly. This gives a narrow status to sign language, which the child notices. The language hearing parents use is often mixed. It has elements from oral language, as vocalization; it is often simultaneous or total communication rather than sign language (Marschank, 1993). Hard-of-hearing children learn Finnish with the help of auxiliary equipment, such as the hearing aid from what they get the most benefit when using it faithfully (Ross, et. al. 1982). Very often they have additional speech training.

4.2. Speech

Hearing loss can be detected in speech. A deaf person doesn't learn to speak simply by being surrounded by speech as hearing people do; they need speech teaching (Svartholm, 1984). A deaf person learns to speak mostly by kinesthetic perception and memory. To learn this oral communication method is a very big task for deaf people. It needs intensive and long-term teaching and motivation. Very often frustrations are experienced. Because the results haven't been very good, many deaf people don't want to speak publicly. They have noticed that people stare at them, wonder about their different voice. They also have difficulties in controlling the volume of their voice (Cantwell & Backer, 1987). Very few congenitally deaf people have normal speech, learning it is difficult, even with the help of modern hearing aids (Davis & Silverman, 1970; Meadow, 1980; Webster, 1986). Deaf people have said that at school their teachers have often said they speak well. When the deaf spoke elsewhere, they noticed that their speech was not understood. The teachers were so used to their speech that they understood it (Higgins, 1980).

Using the hearing aid when learning to speak is considered important. This is obvious for the HH children, but also many deaf people use the aid. Although they don't hear words, they can hear the rhythm of speech, and if they have residual hearing in the speech frequency zone, they can use the aid when lip-reading.

The quality of speech of hard-of-hearing is dependent on the gravity of the impairment. Usually HH people have articulation problems, e.g. the last consonants of the words disappear, the quality of voice and the rhythm of speech change. The melody can become monotonous and nasal (Giolas. 1982). Consonants may assimilate or substitution can occur, which makes understanding difficult. Such anomalies are accepted in children's speech, but when an adult has problems speaking, it is not considered normal (Linkola, 1992). The unusual speech causes problems in social situations. Deaf and HH people can't notice the prosodic features of speech, which are important in distinguishing meanings. They also have difficulties in using these features in their own speech. Unordinary speech causes problems in our society.

4.3. Reading

Wood et al. (1986) say they demand a Nobel prize for anyone who solves the problem how to teach deaf children to read well.

Reading ability is important in life, a poor reader has more difficulties in being admitted to a university or getting a job. The skills needed before a person can learn to read are said to be an ability to speak and listen. A person has to be able to separate sounds in speech and in writing (Frostig & Maslow, 1973). If this were completely true, deaf people would never learn to read. However, they have difficulties in learning to read. Hakkarainen (1988) noticed that deaf children at the age of fifteen have a reading ability similar to that of eight-year-old hearing children (see also Quigley & Paul, 1984). In a study of 278 adult deaf people Monteith (1980) noticed that their reading ability was on the level of school children in the third class.

However, after school many deaf people have learned the special terminology of a profession quickly and are able to read about the profession. This seems to be due to motivation: the text was relevant and people wanted to understand it (Kyle & Woll, 1985). The functional reading ability (Malmqvist, 1973; Grundin, 1975), i.e. the ability to read what you have to read in order to cope in society, of deaf adults was rather good in a study made by Takala (1989). Many HH children are some years late in language development when compared to their normally hearing peers (Mäki & Tastula, 1991). Because reading is a very basic skill, delayed reading ability limits success at school and later in society as well.

4.4. Writing

Myklebust (1964) said that deafness limits the quality and quantity of language. The most usual mistakes in written language made by deaf writers are: omission, substitution, addition and word order mistakes.

The language model most used by deaf people is the subject-verb-object-sentence. Their vocabulary is limited, few adjectives are used and errors in tense usage are frequent (Saarnivaara, 1982; Takala, 1983; Webster, 1986). Because sign language can't be written, the deaf have to learn to write in a foreign language and the results should be studied as mistakes made in such a language. When a pre-lingually or congenitally deaf person learns to write, s/he learns to communicate through a language s/he has never heard. Researchers have noticed similarities between this process and the process a hearing person uses to learn a new language. The product resembles a pidgin language.

Although deaf children practice writing at school, they have limited experience of using language functionally. They have difficulties in writing messages to hearing people (Staton, 1983). That's why they prefer to avoid writing; they don't rely on their competence (Svartholm, 1984). However, today almost every deaf person has to write when communicating e.g. through text-telephone. The delayed language development of HH children can also lead to problems in writing. All shortcomings in language competence can lead to difficulties in forming a clear view of society.

5. CULTURAL POSITIONS OF HEARING-IMPAIRED PEOPLE

The psychological development of a deaf person is not different from a hearing person's development. However, the environment is unique. It is often called a silent world, but still some sounds break the silence. They are more or less just noise, without meaning (Levine, 1981). However, they can carry meaning, e.g. low frequencies can be heard or noticed through vibration. The phrase "silent world" and the silence metaphor is often used to signify a (dark) side of deafness (Padden & Humphries, 1988).

5.1. Cultural positions and context

The group identity has been different for deaf and hard-of-hearing people. Deaf people are said to form a rather tight group with their own associations, however HH people seldom join their association. They prefer to identify with normal hearers. Some of them deny and hide their impairment (Weisel & Reichstein, 1990). The impact of a hearing loss on peoples' life derives more or less from his/her personality. People whose hearing loss comes little by little can first ignore it, sometimes they don't even notice it. Many misunderstandings occur and self-reliance weakens (Levine, 1981). A visual impairment is said to isolate from objects and a hearing impairment to isolate from people.

In Finland the deaf are considered to be severely handicapped, and because of this they receive certain services, such as interpretation, financial aid, equipment, etc. (Sosiaalihallitus, 1987). The text-telephone and text-television, which came to Finland in 1981(Tikkanen, et al. , 1988), serve the deaf in the flow of information.There is also a group called the isolated deaf, who have not been able to create a communication system with their environment. They have not had the opportunity to become independent persons and this can lead to mental problems (Lampinen, 1987). These people were not reached trough this study.

Deaf people categorize the hearing in three groups according to Nash & Nash (1981): 1) Those who are almost deaf, meaning interpreters and those hearing people whose parents have been deaf. The children of deaf parents can be called CODAs, meaning "Children of Deaf Adults" (Preston, 1994). These people are seen both as helping and preventing when communicating. The interpreter is usually in control in different conversation situations and the deaf person has to trust this possibly unknown person in very intimate and important situations. This is a unique situation. 2) People who are mostly hearing. These can be hearing sisters, neighbours, teachers; people who have friendly attitudes toward the deaf. Sometimes the deaf feel that they are a burden to these people. 3) Completely hearing people; other hearing people who have no communicative competence with the deaf.

Padden & Humphries (1988) write about different sounds, such as digestive sounds or coughing which carry meaning in the hearing world, but which are difficult for the deaf to know. Coughing can mean that the person has a flu or in certain situations it can be a comment about a poor speaker. Sounds carry cultural meaning.

Deaf people can be seen as a cultural and linguistic minority rather than people with a pathological medical condition (Reagan, 1990). However, especially medical experts receive a lot of criticism from the hearing-impaired because when they diagnose an individual as handicapped, more emphasis is put on the disabilities than on the remaining capabilities of these people (Moor, 1987). People who identify themselves with other deaf are considered deaf, the amount of hearing loss is not important (Padden, 1980). Various authors in the USA, Great Britain and Scandinavia have found the same characteristics that serve to identify the deaf community:

1) Linguistic differentiation; language is most important in identification. Sign language gives cohesion, but also stigma to the community.

2) Attitudinal deafness; these people identify themselves with the culturally and socially deaf.

3) Behavioral norms; eye contact patterns, touching, facial expressions, gesturing, etc. which differ from the norms of hearing people.

4) Endogamous marital patterns, estimated for the great majority of deaf individuals, from 86% to over 90%.

5) Historical awareness, which is mostly transmitted through signs.

6) Volunteer organizational networks, which help to maintain the cohesiveness of the group and give possibilities to be with other deaf (e.g. Reagan, 1990; Kyle & Woll, 1985; Barham, 1989; Higgins, 1980; Olsholt, 1991).

The deaf people can be members of three cultural groups, the deaf culture, the hearing culture and the bicultural community. The last one consists of those people who are able to move between the first two communities (Reagan, 1990).

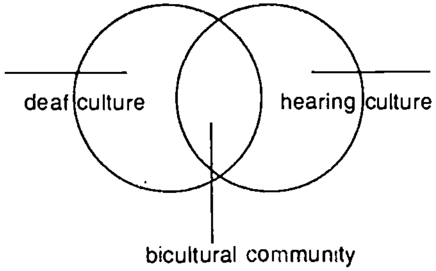

Figure 3: Three cultures

The situation becomes more complicated if we take those who are deaf and those whose family belongs to the Swedish-speaking minority in Finland.

The residential schools have been places where the culture of deaf persons has flourished. These schools are usually bigger than local schools, so there are more possibilities to meet different deaf people and to learn more sign language.

The local association of the deaf may often be one of deaf people's most important life spheres. The social network of deaf people consists of relatives, friends, neighbours, etc. and also good friends in the association. These association members have great personal and emotional impact on life. Interestingly, in the hearing society people in associations are generally referred as formal network members rather than emotionally important people (Backenroth, 1991). Speech is not considered important in the deaf community. Those deaf who can speak or who have some residual hearing may be avoided or even rejected by the community. However, when communicating with the hearing world, these people are used and needed (Higgins, 1980). Also usually those who have good reading and writing skills, are chosen as leaders among the deaf (Olsholt, 1991).

The deaf community is part of the deaf culture. Because deaf children usually have hearing parents, membership in the community is gained later in life. They enter the deaf community usually when they are adolescents or adults. Deaf children are at home with their hearing parents, and they meet other deaf children only at school (Marschank, 1993; Higgins, 1980; Nash & Nash, 1981). The deaf culture and community are dominated by sign language. Few deaf people use oral language as their main communication method. Such people have gone to school when signing was forbidden, and signing publicly can be difficult for these people (Higgins, 1980; Barham, 1989). The deaf community is not geographically situated somewhere, it consists of different races, religions and social classes, it is a unique community (Nash & Nash, 1981). Inside this community there are people from different social classes. Social class has never been very important, few deaf people study a lot, deaf doctors or lawyers are rare (Higgins, 1980). The deaf congregation is part of the social network deaf people have and its leader is usually hearing (Olsholt, 1991). There are some similar features to being a member of a deaf community and being a refugee in a foreign country.

All disabilities unite people and many disabled persons have their own organisations and associations. The Finnish Association of the Deaf, which was founded in 1905, is the oldest organization for disabled persons in Finland. The Finnish Federation of the Hard-of-Hearing was founded in 1930 (Kuurojen Liitto, 1985; Ojala & Pöntys, 1991). These associations organize rehabilitation and sign language courses, they activate their members to participate in society and encourage them to demand important services.

5.2. Work and social life

Jobs of many deaf people are mechanical and not very interesting. Deaf people have few contacts with workmates (Olsholt, 1991). Deaf adults have traditionally done manual labour or worked in vocational professions. Employment in white-collar professions has been rare until recently. Now we have began to have more and more educated deaf people worldwide (Nash & Nash, 1981). Doggett (1989) undertook a small study of 14 employers and 15 employees, of which five were severely hearing-impaired. The speech of these employees was recorded and the employers had to evaluate the intelligibility of the speech, the independence and the competence of the speaker. The hearing-impaired persons got the lowest scores. The inability to speak well is easily connected with incompetence (see also Liikenneministeriö, 1985).

According to research done in Norway (with 102 severely hearing-impaired adults, from 18 to 82 years old) the social networks these people have is smaller than hearing people's networks. They have less contacts with their family than other people have. This is due to the fact that the family is usually hearing and the sign language ability of the family members can be weak. People with severe hearing loss have lower social status than hearing people and 29% had received no education after compulsory school (Falkenberg & Olsholt, 1990)

According to the same research (Falkenberg & Olsholt, 1990) many people with severe hearing loss watch television, although the programs don't have subtitles; almost two-thirds don't understand the program completely. Watching television is a way of being with the family, and it describes the limited supply of suitable leisure-time activities. Deaf people's leisure-time is mostly spent in activities organized by own associations (Olsholt, 1991). The majority, 91% reported they read regularly, however many read only the headlines. A journal published especially for the hearing-impaired was read by 95%, and 60% said the language in it was not difficult. Most of their everyday information comes through television or radio. Deaf people can't use these, they must read the news, which is written in difficult language (Falkenberg & Olsholt, 1990). The lack of information is great.

In a study concerning the information available to visually and hearing-impaired people in Lapland made by Tikkanen et al. (1988) three fourth of the 85 hearing-impaired subjects reported they did not get enough information. Although text-tv is available, the pre-lingually deaf wanted the local news to be signed. They noted that a visual or hearing-impairment leads often to difficulties in social relations and to a more monotonous daily life.

The Finnish Association of the Deaf made a study about the unemployment of the deaf in 1993 (Toukonen & Pokkinen, 1993). They found that in all age groups of 1005 deaf subjects, a greater percentage of deaf persons was unemployed than of hearing persons. Especially the youngest deaf people (people under 25 years) were unemployed.

5.3. Problems in a hearing society

Hearing impairments make the use of ordinary services from society difficult. Society tries to minimize the problems by organizing e.g. interpretation and technical equipment (Falkenberg & Olsholt, 1990). In the University of Pittsburg 378 hearing-impaired were interviewed about the problems their impairment had brought them. Most problems were in social situations (43% said so), then in family situations (23%) and in workplaces (23%). Then people were asked what do they do when they don't hear: the most usual answer was "I ask to repeat" or "I ask for help" (14%). Equally often people said they pretend they understood or guess (14%), and 12 % said they do nothing (Giolas, 1982). When you don't hear what is said, Giolas (1982) recommends: 1) ask to repeat, 2) adjust your hearing aid, 3) give information about your impairment to the speaker, 4) avoid pretending and 5) if you can't interrupt, ask your neighbour.

In a usual discussion a hearing-impaired person gets extra attention, his/her voice can be improper in volume, s/he can drop out of a conversation without noticing it and comment on something unrelated to the topic. Understanding strangers is also difficult. Especially many hard-of-hearing people who haven't had their hearing loss from birth are often angry about their disability They say that the hearing loss just came, and it causes so much trouble; anxiety, frustration and the fear of failure are usual feelings (Orlans, 1988; Falkenberg & Olsholt, 1990). Hearing-impaired people become selective when choosing company. A small group of people who know their difficulties is better than a big group. Small parties at home with good lighting and controlled sitting order are preferred. People who are easy to lip-read and who are patient remain as friends (Orlans, 1988).

An interesting study was done in Tel Aviv in the Association of the Deaf and HH. The researchers asked 43 HH and 49 deaf adults if they would be eager to recover hearing through an operation. Three fourths of HH subjects and one fourth of the deaf subjects had a positive attitude toward the operation. Most deaf people were satisfied with their life despite their hearing loss. Both groups were also asked to list three most difficult things in everyday life caused by the hearing loss. Both groups mentioned 1) communication with hearing people, 2) telephone and 3) television and radio. The fourth ones were difficulties in getting a job and problems in their job (Weisel & Reichstein, 1990).

Hallberg & Carlsson (1993) made a survey with 62 hard-of-hearing subjects interviewing twelve of them many times and 50 only once. They found out that a hearing impairment becomes a handicap in a variety of situations. They found two higher order categories (figure 3), namely: 1) "situations relating to environmental factors, which describes the general obstacles to receiving information attributed to sender-problems or 2) environmental circumstances and situations relating to life habits', which describes stressful situations relating to the individual's life habits and social roles" (Hallberg & Carlsson, 1993, 83).

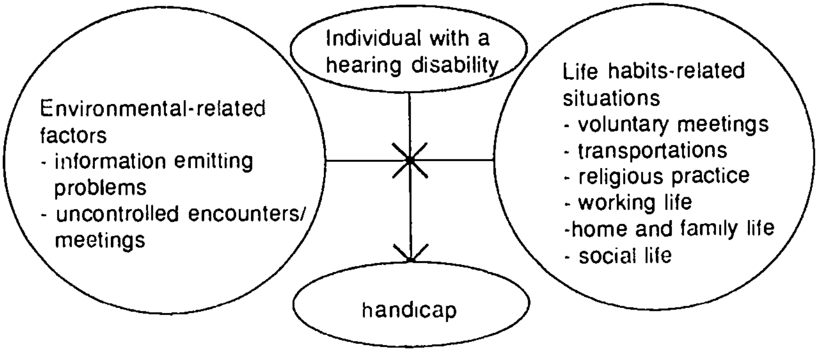

Figure 4: Interaction between situations related to the environment and situations related to life habits (Hallberg & Carlsson, 1993)

The environmental factors are outside the control of HH people, but situations relating to life habits can be more controlled. So hearing impairment is more or less a social problem, an environmentally related problem. According to Hallberg et al. (1993, 83-84) "to prevent a hearing disability from turning into a handicap, the environmental circumstances... have to be adjusted to the hearing-impaired persons' needs."

6. IMPAIRMENT, DISABILITY AND HANDICAP IN SOCIETY

6.1. View of society

The concept "view of society" is defined through the concept "world view". This is not a clear concept in English, because the concepts Weltbild and Weltanschauung are not separated. These concepts world view, image/picture of the world, outlook on life, etc. are used indiscriminately. The term world view is used in this study to correspond Weltbild, and the term Weltanschauung refers to the concept "outlook on life". So world view refers to a more narrow concept, excluding e.g. beliefs.

The world view can be seen as a sum of all that knowledge concerning the world that exists. Because different people have different knowledge, their views of the world are not similar (Enwall et al., 1989). Niiniluoto (1984) classifies the world view into three types: scientific, religious and metaphysical view.
The world view includes elements such as 1) theory of knowledge, 2) arguments concerning the world view and 3) theory of values, what is right and wrong and what is the purpose of human existence (Niiniluoto, 1984). The world view has different beliefs and values in it, and in comparison to this, the outlook on life, includes norms which regulate our life and help us to choose. Among other things it helps us to decide if it is right or wrong to kill a human being (Enwall et al., 1989). All people do not have a personal outlook on life because personal activity is required to form one (Manninen, 1977).

The world view has the following ideas in it: 1) ideas about time and space, 2) ideas about how everything began, about the supernatural, existence and non-existence, 3) ideas about nature and the relationship between nature and human beings, 4) ideas about human beings and their relationships with each other, 5) ideas about the structure of society, nation, state and matters that determine the course of history (Manninen, 1977, 16-17). The world view forms a unity; although some parts seem to be in conflict, there nevertheless are uniting features which form a logical view of the world (Manninen, 1977).

According to Helve (1987), the world view consists of the following dimensions: the cognitive dimension, the operational dimension, the social dimension, the emotive dimension, and the cultural dimension. She used e.g. following authors when creating this figure: Glock & Stark, 1966; Helander, 1986; Pentikäinen, 1986 and Ringgren, 1975. Her structure of the world view is used in this study to refer to the view of society.

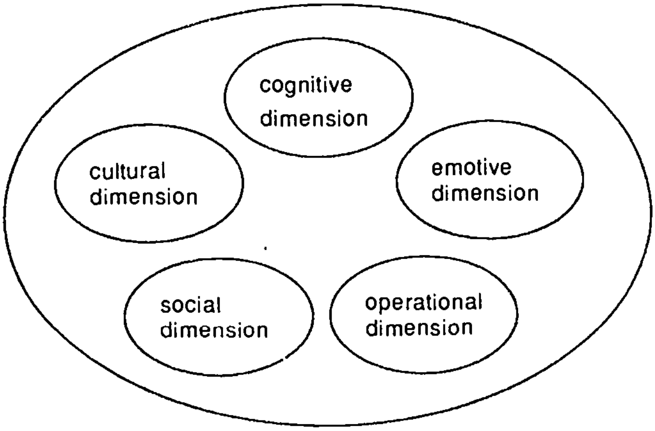

Figure 5: Dimensions of the world view (Helve 1987)

The world view can be seen as a cover term for many elements beginning from the self-image, the ideas of self people have (von Wright, 1982). The view of society can be seen as a smaller unit than the world view, being situated partly inside it. It is the social world view, which includes beliefs about the society and culture in which people live, and also beliefs about man (Rauste von-Wright, 1987). The view of society can be seen as a part of the world view. This view begins to form in early childhood. The view of society is a mental representation of the society. According to Moscovici (1987) such representations have a dual function: first to create an order which makes orientation possible in a material and social environment, and secondly to provide the ability to control this environment. The experiences of individuals as well as their social class, religious setting or position in society influence the view of society people have. People are often unconscious of their own views because these views are unstructured (e.g. Bulmer, 1975).

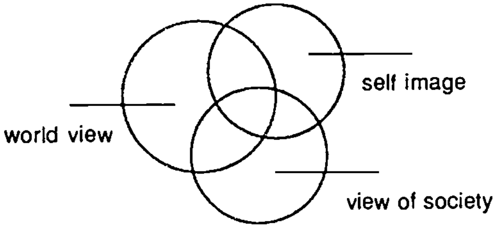

Figure 6: The elements near the view of society

Kurt Levin (1935) said in the 30's that the behaviour of an individual depends upon the relation between the individual and environment. Bronfenbrenner (1979) changed the word behaviour to development; development is a product of an individual's and environment's character. The ecological environment is formed out of structures which he calls systems. The first one is the microsystem, meaning the environment where the person mainly exists, as for example in a family, in a working place or with the neighbours. One person has many microsystems in which s/he lives and moves. The following one, the mesosystem consists of the interrelations between different microsystems, and the person in all of them is the uniting link. These systems are followed by an exo-system, which is formed out of such settings where the person is not directly involved, but which effect his/her life, as the parents' workplace for children. The last one is the macrosystem, having in it traditions, beliefs, ideologies, values, etc. The deaf can have fewer microsystems where they are equal members (e.g. neighbours can't sign), the hard-of-hearing can have more.

Because development is a product of relations between an individual and his/her environment (Bronfenbrenner, 1979) the deaf, and at least some of the HH people seem to have limited possibilities for development. The interaction between the environment and a hearing-impaired individual is seldom satisfactory.

6. 2. Impaired people in Finnish society

People who have some kind of impairment form various minorities. WHO has published a classification system by which the concepts impairment, disability and handicap can be separated. We speak of an impairment (e.g.hearing impairment), when we mean actual physical damage. When a person has this damage, it can lead to a disability which means that the person is unable to do something (e.g. problems in communication). A disability becomes a handicap when the individual can't do what the environment demands (e.g. a deaf person can't use a normal telephone) (WHO, 1980). Having a disability means often getting less education, less salary, fewer opportunities. This is not a must, but it seems to be often true. The welfare state tries to minimize these problems by giving support services (e.g. hearing aids, interpretation service, etc.). The aim in giving these services is full integration and equality (Allardt & Starck, 1981; Vilkkumaa, 1986; Ruonala, 1986).

Kuotola (1985) has studied the integration into society of visually impaired, mentally retarded and physically disabled people. These people have different kinds of problems than hearing-impaired people, but there are same common elements. He noticed that these impaired people are often marginalized, they are left outside the flow of information and communication networks, and the majority is unaware of them and their problems.

Not more than ten years ago, and in some places even now, those who signed publicly received quickly the stigma of being different, perhaps even stupid. Having a stigma, being deaf, reduced the possibilities in life (Goffman, 1963). Deafness is invisible, but contacts make it 'visible'. The deaf prefer not to speak publicly, because they have noticed that hearing people don't understand their speech or are not used to the voice of deaf people and are surprised by it. Goffman (1963) writes about concealing the stigma which can become a part of personality. Now the general attitudes toward sign language have become more positive, and there is no need to hide signing. Also the movement 'Deaf Pride' (e.g. Sacks, 1992), which emphasizes positive aspects of being deaf, has helped many deaf people to find their identity. Goffman (1963) writes about the HH people who want to hide their impairment. They feel they should tell about it and feel guilty when they don't. They would rather pretend to be absent-minded or to be daydreamers than tell about their impairment; there is only a small group whom they tell. Such secrets cast shadows almost always. Then there is the "request" of the majority to the members of a minority which might be: 'Do not pass completely. An impaired person has to be an impaired person who is not too smart, too beautiful, etc.' (see Goffman, 1963). Whether this is true in the 1990s remains a question.

With regard to deaf people the impairment can often become a handicap. As long as they are within their own group, the impairment is not even a disability, but when going e.g. to a shop, a deaf person becomes a handicapped person because of the oral language of the majority. S/he comes from her/his microsystem to another system with rules and languages. Foster (1989) made a study concerning life experiences with 25 deaf graduates using in-depth interviews. She found out that social rejection by and alienation from the hearing community was a dominant theme. Hard-of-hearing people are often disabled when the hearing situation is not optimal (too much noise), but they usually know the Finnish language, so they can read and write Finnish well and manage in many situations with those skills.

European civilization has progressed through three stages of society: the agricultural society, the industrial society and the information-technological society or, as it is also called, the service society (Karisto, 1985). When thinking of the hearing-impaired, the industrial society gave these people technical help, for example better hearing aids. The service society demands communication skills, good reading, speaking and writing competence. These are not so easily acquired by hearing-impaired people.

6.3. Linguistic minorities in Finnish society

Allardt (1979) says a linguistic minority can be defined as a subcategory of an ethnic group. Are the deaf an ethnic minority? Allardt says that socially and historically based categorizations are more relevant when labelling a group of people a linguistic minority. He mentions four elementary criteria of ethnicity: 1) self-identification or self-categorization, 2) descent, meaning some form of ancestry, 3) distinctive cultural patterns, as language, 4) social organization of inter-ethnic interaction Allardt comments that not all researchers mention the fourth one, and that not all members of an ethnic group "are tied to their group on the ground of all four elements" (Allardt 1979, 30), but at least some members are. Deafness is sometimes hereditary, so in a broad view the deaf could be regarded as an ethnic minority. However, if territorial basis is included in this definition of ethnicity, the deaf do not form an ethnic group and if the definition is taken very strictly, the deaf do not fulfil the second criterion. The definitions of an ethnic group used by Barth (1969) include 1) the biological self-perpetuation 2) shared fundamental cultural values, 3) a field of communication and interaction and 4) an identified membership. The deaf do not fulfil all these and that is why they are regarded as a linguistic minority rather than an ethnic minority in this research.

The deaf consider themselves a linguistic minority rather than a group of handicapped people. A state can support minority languages by acknowledging them in laws, as Sweden has done with sign language (Metodbok, 1991). Finland has a law (Vammaispalvelulaki) that guarantees certain services for hearing-impaired people, e.g. rehabilitation guidance, adaptation courses, sign language or MHS courses. The Finnish society support sign language so that severely hearing-impaired people are entitled to interpretation service 120 hours/year beginning on 1 January 1994. When studying, it is possible to receive more hours of interpretation (Sosiaalihallitus, 1987). Previously all municipalities were able to decide themselves how many hours to provide. Also nessesary equipment (text-telephone, alarm-clock with vibration, a telephone with an amplifier, etc.) can be paid for by the state. Many deaf people also receive a disability allowance (Sosiaalihallitus, 1987).

We have four language minorities in Finland, the Swedish-speaking Finns (N= 296840, about 6 % of the population in 1989), those who speak Sami (N= 1730, about 0,03% of the population in 1989), the users of the language of the Gypsies´ (N=6000) and the deaf who use sign language (5000-8000). The position of the Swedish-speaking minority is guaranteed by law. Also those who speak Sami and live in their area may be taught in Sami (Suomen tilastollinen vuosikirja, 1991; Koulusäädökset, 1991; Mustalaiset vähemmistönä suomalaisessa yhteiskunnassa, 1981). The gypsies and the deaf seem to have fewer rights than the others.

The status of a minority group is problematic if these people may not use their own language in public and if they don't receive important services (medical, etc.) in their own language (Allardt & Starck, 1981). There are very few places where you can manage with sign language. When speaking of bilingualism, we can distinguish bilingualism as the ability to speak two languages and bilingualism as a process of identification. Many situations require a choice: which school, which congregation, etc. Parents of hard-of-hearing children often choose normal schools in favour of the Finnish language. However, `there is always a small group of people who say they belong to two language groups (Allardt & Starck, 1981). People with severe hearing loss can have problems in choosing their language group. The status of a minority group can change during history, some groups lose their position while others retain it (Liebkind, 1984).

An important aspect is the concept of human existence. Rauhala (1991) says that one basic aspect in a human being is his/her "conscious being"/ "mental self-awareness" (tajunnallisuus), separated from the "bodiness/physical being" (kehollisuus). He separates two points in this "conscious being", namely psychical and mental. Also animals have this psychical part, they can feel well, they can be afraid, etc. The mental aspects signify a higher stage, in which thinking and knowing are possible.

The raising of the status of sign language has had a positive effect on the status of the deaf. Because sign language is a real language also abstract thinking is possible in it. It is possible to reach a higher mental stage without oral language which was formely not believed.

The group an individual belongs to is a question of identity. Does s/he have a bilingual, monolingual, or some other identity? Very often some kind of stereotype is characteristic of these identities, depending on whether the definition is an ingroup or an outgroup definition. A tendency to regard people belonging to a minority as somehow similar is noticed. However, also self-stereotyping can be observed in minority groups (see Liebkind, 1984). To be different from the majority can be difficult if the norm of an ideal (male) person is, as Goffman (1963, 128) generally describes: "a young, married, white, urban, northern (in USA), heterosexual Protestant father of college education, fully employed, of good complexion, weight, and height, and a recent record in sports."

6.4. Summary of the theory

A human being is able to speak, in contrast to animals who have at the highest level signal language. This belief has done a lot of harm to deaf people, who in the past were not able to e.g. inherit their relatives, because of their deficient oral language skills. A dogma that deaf people can't be taught, which is said to derive from Aristotle, Hippocrates and St. Augustine, had a negative influence on deaf education. Beginning with the age of the Enlightenment the situation of deaf people began slowly to improve, and because religious teaching was considered important the church had a central role at the beginning of deaf education (e.g. Plit, 1984).

The situation of the hearing-impaired seems to be improving. Signing is allowed at schools, and attitudes toward sign language have become more positive in society as a whole. More and more people know it is a real language. When the deaf are among themselves, they seem to succeed in communication, and from 1994 on they will receive 120 hours interpretation service if they need it. The situation seems rather good. The hard-of-hearing get better equipment, and more and more public places have tele-loops. Also hearing aids and other equipment are improving quickly. They also have their own associations where they can meet equals.

However, the question of successful communication is still not solved. Speech is not possible to be replaced by signing in every place. Many rehabilitation programs still consider the goal to be oral language. How do the hearing-impaired people themselves see their situation in Finland will be studied in the empirical part of this research. The research methods will be another main theme in the following pages.

PART B

7. RESEARCH QUESTIONS AND INSTRUMENTS

The main goals of this study were to determine the subjective view of Finnish society which the deaf and the hard-of-hearing, as groups of impaired people have, and how they cope in this society.
This research comprises five studies and all these studies have been published or accepted to be published and they are included in this dissertation. Questionnaires were used as the main source of data in studies I and II. The data for studies III and IV were received from life stories. The fifth study concentrates on methodological aspects of study I.

7.1. Research objectives

The main questions in this research are:
1)What is the view of Finnish society deaf and hard-of-hearing adults have?

2) Are there differences between the views of society deaf and hard-of-hearing adults have?

3) What is the suitability of the following methods for studying the view of society hearing-impaired people have:
a) written questionnaires
b) signed questionnaires
c) personal contact
d) life story approach ?

The following hypothesis were made according to the literature review:

1) When using sign language, more and better answers are received from deaf subjects than when using only Finnish.
2) Hard-of-hearing people see society more positively while they have the same language as the hearing majority.
3) The life story approach used in this research suits better for studying the HH than the deaf because HH people are more fluent in Finnish

7.2. Qualitative and quantitative methods together

Methodological triangulation, which was used in this research, could be defined as a multimethod approach, often using both qualitative and quantitative data analysis. The data received from the questionnaires was mainly analysed with statistical methods and the life stories were analysed with qualitative methods. Such methods are well suited for studying and revealing the experience of disability (Ferguson, Ferguson & Taylor, 1992; Cohen & Manion, 1989). The point in using different methods is to obtain varied data, and the shortcomings of one method can be compensated by another method (Huotelin, 1992).

When using both normative and interpretive techniques, the final solution is many-sided. Brewer & Hunter (1989) say that when findings of two methods agree, the researcher can be confident. In this research the findings didn't quite agree. Pietilä (1976) says that if the same results are obtained when two methods are used to study a phenomenon, the results are reliable. However, he notes that when studying the same issue the results can also be different. When e.g. interwiewing or observing, verbalizing things produces different results than if the data is provided quantitatively. When two methods measure different phenomena, the results can be different. In this research the life stories gave a more personal and sensitive picture of society and the questionnaires a more cognitive, neutral picture (see also Tynjälä, 1991). What methods to use depends on what information is needed to shed light on the problem (Brewer & Hunter, 1989). A triangulated research technique is a good method to study human life; the findings of one method reinforce and validate the findings of another method (Denzin, 1970).

The methods used with the questionnaires and with the life stories are dealt separately. The structure of this research is seen in the figure 7. Life story is placed in the middle, because it represents all elements of the view of society.

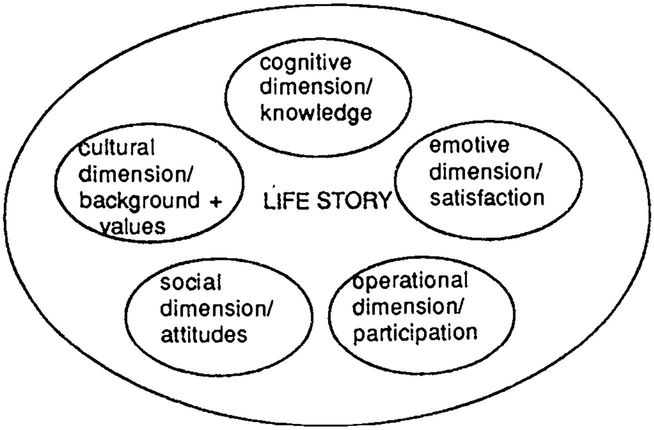

Figure 7: Dimensions of the view of society/questionnaires used in studying them

7.3. Life stories

When a person writes about his/her life, the result is usually called an autobiography. Also other terms are used, depending on the emphasis: "biography", "life history", "life story", "case history", "human/personal document", etc. (Vilkko, 1988). The term "life story" is used to refer to the stories written for this research.

When a person writes his/her life story, s/he can decide what to include and what to leave out. The story is a subjective representation of reality, not an objective description (Roos, 1988; Tigerstedt, 1984). The stories can be called reproductions of reality; parts of the past that are relevant for today are represented (Kohli, 1981). Life stories give the reader a possibility to study matters which are not directly observable; they allow the reader to see people in context of their entire life and understand fuller the critical periods of life (Bogdan & Taylor, 1975). A life story is selective, but it deals with a large number of items. When reading the stories a distinction must be made between the experiences and the interpretations of them. Some stories seem to be preoccupied with conflict; many serene years will be passed over in a few sentences. The problem in these life stories is the reminiscence of early years, early memories are very unreliable and writers lack perspective to give an accurate account of the present (Allport, 1951; Roos, 1988).

When reading the stories, it is important to know to whom and why (to a researcher, for a book, for grandchildren, etc.) they were written; the story is never written in a vacuum (Roos, 1988; Tigerstedt, 1984). The motive to write a story is different for different writers and it has an impact on the content (Huotelin, 1992). Allport (1951) says there may be several motives for writing: 1) special pleading, 2) exhibitionism, 3) desire for order, 4) literary delight, 5) securing personal perspective, 6) relief from tension, 7) monetary gain, 8) assignment, 9) assisting in therapy, 10) redemption and social re-incorporation , 11) scientific interest, 12) public service and example and 13) desire for immortality. These motives express primarily conscious intentions. It is difficult to know which of these motives suit here, probably number five "securing personal perspective", number seven "monetary gain", because some prizes were promised, number 12 "public service and example" and surely number six "relief from tension". Many wrote that it was good to write to somebody, to know that someone is interested in their experiences.

When a person writes his/her story, the life history tells about the world view the writer has, and different generations transmit different information (Pentikäinen, 1971). Important and distinctive factors in the stories are sex, age, profession and social class of the writer.Younger writers write more about their childhood, school-time and parents, older ones write about work and own family and children. Women tell more about their children and about the future as their children's future. Men tell more about their occupations they have had and about well-defined goals of their life. They want to guarantee the material welfare for their children. Men present themselves as subject of their own lives, they seldom talk about their family life, as if it wasn't a part of their life. Women tell much about their relationships to different people, their life stories include part of other people's life stories. Women don't tell so much about what they have done but instead what relationships existed. Men use "I" more often than women. The feminine "I" usually carries a different meaning, it is the "I" in relationship to others; often women prefer "we", meaning e.g. "I and my parents", "I and my husband". Old people tell more about the past, not so much about the present (Roos, 1988; Bertaux-Wiame, 1981).

7.3.1. Content analysis

Written documents can be used in two ways, the content in them can be described, or they can be used as a source of information of phenomena outside the document. Conclusions about those phenomena can be made according to the document representing this phenomena (Pietilä, 1976). Is this then content analysis, because we want to study something other than the special content of the document, asks Pietilä. He answers by saying that the name content analysis is perhaps not the best one then, that more important than the name is the fact that the methods used when describing the content itself or phenomena outside it, are the same. In this research the view of society was the phenomena which was studied through the life stories. Pietilä (1976) concentrates mainly on classification and statistics in his description of content analysis, although at the end of his book he says that using statistics doesn't always suit well with written documents, because many communicative factors can not be treated statistically. The narrative element is present when people tell why they write about their life.

Suoranta and Eskola (1992) give seven ways of analysing qualitative data. These ways represent mainly two types, traditional analysis and studying texts as they are. The traditional ways are: 1) To quantify the data, meaning numerical tabulation and measurement. 2) Finding central themes in the text. 3) Finding similar types of stories and then choosing one of them to represent the type. 4) Analytic induction, meaning looking for exceptional stories. The researcher has to change his/her views when an exceptional case is found. The ways in which texts are studied as they exist, can be grouped as follows: 1) Quantitative text analysis, where a certain sentence or utterance is chosen as a classifier. This method has problems, e.g. how to choose the utterance. The text can also be approached through a certain text model using transformations. 2) Discursive analysis, which includes more ways of approaching a text than some other single method. 3) Discussion analysis, meaning focusing on the forms of speech and interaction more than on the substance.

The content of a document can be described verbally, and it can be dealt as a unity, without putting it in pieces. The stories can be used to provide answers to the research questions and only the relevant data in the stories is used, although there might be more information available (see Huotelin, 1992).

When using a qualitative method with life stories, there are two basic strategies: to thematize and to find types (Roos, 1985; Tigerstedt, 1984). The whole data can be broken into different themes and then the researcher determines how different themes are represented according to some background variable (sex, generation, profession) (Roos, 1988).

The stories can be grouped according to the type they represent. The types are seldom clear, but traits from them can be found. Types that can be found are: "happy stories", where the writer makes the best of it and maintains that everything is okay. "Sufferer stories" tell all difficulties clearly without hiding anything. Then are the "usual stories", which don't include many events or details in them. Types help the presentation, although features may emerge in one type which are not true for every individual (Roos, 1988). The stories can be also grouped in following types: 1) comprehensive, 2) topical and 3) edited stories (Allport, 1951). A topical story is specialized in its content. That is a good description of the life stories of the hearing-impaired analyzed in this research, the main topic being the impairment. Eneroth (1989) writes about ideal types which can be found from the data. The ideal type has the central, typical features of that type in it. The ideal type does not necessarily exist in reality because it usually refers to a group of people, and individual variety is ignored. In order to guarantee a place for everyone, the researcher has to have enough types. Eneroth also describes 'väsens metoden', a method of essentiality. In this method a common, uniting quality of a group is determined, and these common qualities exist in reality. He also mentions process method, in which types are put into chronological order. These types change as the process develops, they are followed by new types of a somewhat different quality. The process is like a stream.

Age is an important factor when the authors are both young and old. Their experiences in society are different; the effect of wars and the structural changes in Finnish society can be found in many stories, e.g. modern women write more about their work than women 20 years ago (Vilkko, 1990).
Roos (1988) divides Finns into the following generations according to Finnish history; 1) the generation of war and shortage, including people born between 1920-1939; followed by 2) the generation of great change, meaning people born between 1940-1949; 3) the suburban generation, including people born between 1950-1959 and finally 4) the rock generation, people born between

1960-1969 (Roos, 1988). The next one might be the computer generation. This divison by Roos (1988) is used in this research.

Apo (1990) and Mäkelä (1990) recommend to form a catalogue of all text material with background information of the writer. After this is done the first phase begins: writing the plot of the story, a summary. By doing this, the semantic macrostructure, the generalized meaning is formed (van Dijk & Kintsch, 1983). After this the plot is subdivided into smaller units, e.g. happenings. When doing this the researcher uses his or her intuition and hermeneutic dialog (writer's note), reading the summaries and looking for common elements. The researcher looks for the main topics of the stories. This is a subjective process, the researcher uses his or her own, individual 'knowledge of the world' After this the stories begin to fall into types. The researcher decides how many types to choose on the basis of the meanings in the text, on the basis of the importance of different events for the writer; this is interpretation. To convince the reader of the right interpretation, examples of texts must be given (Apo, 1990; Mäkelä, 1990).

When analysing the stories, there is a risk that their freshness and authenticity may be lost (Bogdan & Taylor, 1975). The argumentation in a qualitative study isn't based on statistical connections between variables. If there is plenty of data, it is impossible to include everything without boring the reader. A better way is to give examples of all types of perceptions. A qualitative approach makes it possible to change the view. This is not possible in a questionnaire study which has ready-made alternatives. Both etic- and emic-type of classifications can be used, etic meaning classifications made by the researcher and emic meaning classifications which exist in the text. Generalization is something that should not be done in qualitative research. The results should instead be characterized in proportion to a larger population (Alasuutari, 1993). All these methods of analysis are summarized in table 1.

Table 1: Types of qualitative text analysis (Basic classification in seven groups by Suoranta & Eskola, 1992; adapted by Takala)

Traditional ways, using excerpts from stories or typical stories	
1) Quantifying data, counting frequencies	Pietilä, 1976
2) Finding central themes,	Roos, 1988
essential method (våsens metoden),	Eneroth 1989
central aspects: the age and sex of the writer,	Roos, 1988; Vilkko, 1990
the generation s/he lives in	Roos, 1988; Vilkko, 1990
3) Finding similar types of stories,	Roos, 1988
text as a unity:	
- a happy story, a sufferer story, a real story,	Roos, 1988
- comprehensive, topical or edited story,	Allport, 1951
- an ideal type of story	Eneroth, 1989
4) Analytic induction, exceptional stories	
Text as it is	
5) Quantitative text analysis, using an utterance as a classifier	
6) Discursive analysis,	van Dijk & Kintsch, 1983
process method,	Eneroth, 1989
finding the macrostructure	Apo, 1990; Mäkelä, 1990
7) Discussion analysis, forms of speech important	

In this research types and themes are used to analyse the data, and Eneroth's process method is used to assemble these types and themes together.

7.3.2. Analyzing the life stories

Because of the modest Finnish language skills (Webster, 1986; Quigley & Paul, 1984; Hakkarainen, 1988) of deaf people, the life stories were structured beforehand by giving the subject items and to encourage them to ignore spelling mistakes. The eleven items to write about were: 1)Tell about your school, 2) studying and 3) work. 4) Tell about possible communication difficulties in post-office, shops, banks, etc. 5) Do you vote? 6) Tell about your hobbies. 7) Are you equal to the hearing? 8) Have you used an interpreter? 9) What services you have received because of your hearing impairment? 10) Is it good or bad to live in Finland and why? 11) Are you satisfied with yourself and your life? Tell about anything else that comes to your mind about being a hearing-impaired person in our society? They were also encouraged to write more and freely. In addition some background facts (name, age, profession, education, are you deaf or HH, the age at onset and additional handicaps) were requested from the wnters of life stories (see appendix 6).

The stories written by the deaf were analysed according to the process method (see ch. 7.3.1.) and the stories written by the HH were analysed using the method of essentiality (Eneroth, 1989). The stories were first read many times, deaf stories by two and HH stories by one researcher. After reading them, their main themes were determined. The themes that were found, were mainly mentioned in the given questions, e.g. education, work, etc. However, stories written by HH subjects had more themes than stories by the deaf. After all the themes were determined, the stories were divided into parts and all themes were written down. Then it was possible to make a summary of all themes. However, the abridged stories were not very informative and this is why the stories are presented also according to types, namely stories from young and old writers, positive and negative stories, female and male stories. These types were chosen as being the most representative..

Stories written by deaf subjects are discussed according to the life-span cronologically, beginning from childhood and ending with retirement. Exerpts from stories are taken from three common viewpoints, namely communication, satisfaction and services. In addition, some complete stories are presented followingly: 1) a story from a younger writer, 2) a story from an older writer, 3) excerpts from stories about childhood and education, 4) excerpts from stories about work, 5) excerpts from stories about communication, personal relationships and leisuretime, 6) excerpts from stories about satisfaction and services from society, 7) excerpts from stories about retirement. The stories and exerpts are presented cronologically according to progressing age.

The following stories from the HH subjects are presented: 1) excerpts from stories from younger writers, 2) excerpts from stories from older writers, 3) excerpts from positive stories, 4) excerpts from negative stories, 5) excerpts from male stories, 6) excerpts from female stories, 7) excerpts from stories about communication.

The method used to analyze the life stories is described in detail in sections III and IV.

7.3.3. Reliability and validity in life story research

Reliability problem is complicated in qualitative research. Mäkelä (1990) says the following issues should be taken into account: is the data noteworthy, is there enough data, does the analysis cover the data, can the analysis be evaluated and repeated. The noteworthiness of the data means that the data is worth analyzing and also culturally representative. There is enough data when the issue is saturated so that, new data wouldn't change the main results. A good way is to collect first a small amount of data, analyze it and then see how much data is necessary (Mäkelä, 1990). The analysis is evaluated when the reader is able to follow the reasoning of the researcher. (Huotelin, 1992). When the rules for interpretation and categorization are clearly stated, another researcher should get the same results. Weber (1990) presents three indexes of reliability that can be used in content analysis: stability, reproducibility and accuracy. Stability means consistency in coding by the same person at different times. When two people read the data and the results agree, the reproducibility is good. Accuracy refers comparisons with standards and this is seldom possible (Weber, 1990; Krippendorf, 1980 in Weber).

Life stories provide subjective data; all psychiatrists know that their patients' statements can't be taken as completely valid descriptions of the situations they tell about. The validity of the stories can be studied through the honesty of the story and through the researcher's own experiences of reality. A story must hang together and represent the structures of human life. This is all we can demand with regard to validity. Deception and self-deception are always possible (Allport, 1951). However, historical truth is easy to check (Kohli, 1981). Stories from the same sociostructural relations support each other and make up a strong body of evidence. One story is always just one story, but several stories from people living in the same sector of production/having the same impairment (writer's note), represent more than isolated stories (Bertaux & Bertaux-Wiame, 1981).

With regard to validity, we think that those parts of the documents that we have decided belong to different categories really belong there (Pietilä, 1977). In this research we could ask, e.g. whether difficulties in shops really represent communication difficulties or something else? This brings us to concept validity, i.e. whether the concept "view of society" is really represented in those questionnaires and life stories used (see Eskola 1973).

Considering subject validity, all changes in life which have drastically altered the author's life are important. Also the objectivity of a recalled event is of less value than its subjective impact on the person recalling it. The author's remembrances must be taken at face value (Denzin, 1970). It is easier to agree on a concrete level, on what is happening rather than upon why it is happening (Allport, 1951).

The words or phrases used by the author may mean different things to different readers. That concerns semantic validity. Symbols are never exactly interpreted as they are communicated. This semantic validity (Weber, 1990) is problematic in this research, because the deaf wrote in a foreign language.

Many validity questions in document analysis will never be satisfactorily answered because the author may be the only reliable witness (Denzin, 1970). Giving items to authors is two-dimensional, it can limit the issues they write about, but the researcher gets more surely what she most wants to know.

7.3.4. Previous life story research

Biographies in general are studied frequently, but biographies written by deaf or hard-of-hearing people are rare. Qualitative methods have been used by Becker (1980) in a study of deaf elderly individuals. Gelya Frank's research (1984,1986,1988,1992), for which she has collected the life histories of persons with congenital limb deficiencies is a good example of using life stories to study illness and disability. Her most famous studies are based on the life history of a woman born with quadrilateral limb deficiency. A narrative analysis of a man having multiple sclerosis (Riessman, 1990) and a life history of a dyslexic woman (Kris, 1983) are more common than life stories of people having a hearing impairment.

The most usual example of life stories of hearing-impaired people is that in which a mother or father of a deaf or severely hearing-impaired child tells about the childhood of his/her children, what coping strategies they used and how they managed (e.g. Luetke-Stahlman, 1990; Bohlin, 1989; Stern, 1987).

The book "Everyone Here Spoke Sign Language" written by Groce (1985) is a sort of biography of many deaf people living in Vineyard. Additional autobiographical or biographical studies of hearing-impaired people were not found (from database: Eric, PsykLit, Sociolfile, Med-line, Helka and Linda).

7.4. Questionnaire study

The starting point when designing the questionnaires used in this research was the view of society. The dimensions that are part of the view of society are from Helve (1987, figure 5). The basic material to these dimensions is taken from the curriculum for the hearing-impaired and the subject in the curriculum was social studies in the last years of compulsory school (appendix). This represents the basic knowledge of society. The following elements of the view of society were studied (figure 7): 1) Cognitive element, 2) operational element, 3) social element, 4) emotive element, and 5) cultural element. The questionnaires were chosen to represent these dimensions of the view of society.

Using written questionnaires when questioning deaf people is problematic. Questionnaires are often misinterpreted by deaf informants (Marschank, 1993). Sign language can't be written, so the questions are in Finnish, in a foreign language for the deaf. Because clarity of wording and easiness to answer are important in questionnaire studies (Cohen & Manion, 1989), multiple-choice questions were used. They minimize writing difficulties and are rather easy to answer. To find out how signed questionnaires suit when questioning deaf subjects, half of the subjects (50) got the questionnaires signed on a videocasette. Coloured pages were used for different types of questions to avoid mixing the papers.

A good questionnaire is "clear, unambiguous and uniformly workable" (Cohen & Manion, 1989, 106). When using a foreign language these requirements are not always fullfilled. Postal questionnaires were used in this research

7.4.1. Designing and analyzing the questionnaires

Two ways of collecting data were used: questionnaires (studies I and II) and life stories (studies III and IV). The questionnaires were designed to elicit information in five areas: 1) knowledge of society (30 questions), representing the cognitive element, 2) satisfaction with society (20 questions), representing the emotional element, 3) participation in society (14 questions), representing the operational element, 4) values (4 questions) and 5) attitudes (20 questions), representing the social element (figure 5, page 28). Background information was elicited with 64 questions on age, hearing, additional handicaps, education, social background, family status, leisure time activity, communication methods and skills, and self-concept. The background information represented the cultural element, as well as personal values.

Knowledge of the Finnish society (appendix 2) was defined on the basis of the curriculum (Peruskoulun kuulovammaisten koulujen opetussuunnitelman perusteet, 1987 [The curriculum of compulsory school for the hearing-impaired]) for the hearing-impaired at school. The subject that was chosen from the curriculum was social studies (yhteiskuntaoppi) and in it the main goals for the upper stage. The curriculum identified 19 themes. These were compressed into thirteen and multiple-choice questions were formed out of them: 1) Family and society (1 question), 2) education (4 questions) 3) municipal democracy (2 questions), 4) Finnish republic (5 questions), 5) working life (2 questions), 6) the quality of life (2 questions), 7) financial matters (2 questions), 8) the hearing-impaired and society (2 questions), 9) mass media (2 questions), 10) political parties (2 questions), 11) the election system (1 question), 12) law and order (2 questions) and 13) security policy (3 questions). One to three multiple questions were formulated to address each of these themes (e.g. "Who can vote in general elections? a) everyone living in Finland, b) every Finnish citizen 18 years of age or over, c) every Finnish citizen 20 years of age or over, d) I do not know "). The maximum score was 91.

The Satisfaction questionnaire (appendix 3) requested a satisfaction response according to three alternatives: e.g. "Are you satisfied with the Finnish election system?" a) yes, b) no and c) I do not know. The maximum score was 60.

The Participation questionnaire (appendix 4) had fourteen questions about activity in society, e.g."Do you go to church?" They could answer "yes" if they were active or "no" if they were inactive. In some questions also a neutral answer "I do not know" was possible.The maximum score was 34

Values (appendix 5) were studied by four questions. People were asked to write freely about following three topics: 1) "What is a good citizen like?", 2) "What will Finland be like in year 2000?" and 3) "List 1-4 personally important things in life." Finally, one multiple-choice question 4) "Are you a good citizen?" was presented.

The Attitude questionnaire (appendix 5) had twenty multiple-choice questions. The subjects had to evaluate "the hearing", "the deaf", "the hard-of-hearing", "service workers" and "decision makers" by using four adjectives divided into a four-part scale, e.g. "friendly, quite friendly, quite unfriendly or unfriendly. In the same way also following adjectives were used: warm-cold, industrious-lazy, trustworthy-unreliable. A negative choice gave no points, and the most positive alternative gave three. Because these were attitude questions, all rational facts were ignored and only adjectives were used (Jyrinki 1977).The maximum score was 60.

To be sure that the words used were easy enough, the questionnaires were pre-tested in the upper stage of two schools for the hearing-impaired. After the test, easier words were substituted where necessary, and ideas for signing were received. At first every question included a request to give reasons for opinion, but it seemed to be too demanding and the request was left out.

A video-tape was made for the deaf subjects, in which the questions regarding knowledge, satisfaction, participation, value and attitude were presented in Finnish sign language by a hearing interpreter. The final signed versions of the questionnaires were a result of testing them in the schools and of discussions between the hearing interpreter and the author, who is also a sign language interpreter. The background questions were not signed because they were considered easy to understand.
Because of signing and because some subjects were met personally, a varied methodological approach was built into this approach to take the needs of deaf subjects into account. When questioning the deaf three approaches were used: a "paper approach", meaning questionnaires on paper, "a video approach", refering to questionnaires signed on video and "a personal approach", refering to meeting seventeen young deaf subjects and eight HH subjects personally.

The methods used when analysing the questionnaires were frequencies, percentages, t-test, ANOVA, factor analysis and regression analysis (table 2). They were done by using the Macintosh programmes Statview and Systat .

Table 2: Methods of analysis for different scales

	Questionnaires + life stories						
Methods used	B*	K	S	P	A	V	LS
- frequencies	X	X	X	X	X	X	X
- factor analysis		X	X	X			
- regression		X	X	X			
- 2-factor variance analysis	X	X	X	X	X	X	
- t-test	X	X	X	X	X		
- qualitative analysis	X					X	X

(*B=background, K=knowledge, S=satisfaction, P=participation, A=attitudes, V=values, LS=life story)

7.5. The sampling

This was a survey study. The sample size was decided beforehand to be about 100 deaf and 100 HH individuals, which was almost reached. The sampling methods were different for these two main groups, but the common feature was purposive sampling. The uniting feature in sampling was that most of the subjects were members of an aural association, because the information was spread through their journals. Also the register of the Finnish Association of the Deaf was used. These sampling methods guaranteed participation from all parts of Finland. Those who were contacted were people who were considered to have some predisposition to answer the questions and who probably had opinions of Finnish society. Because of the sampling system used, the culturally, socially or geographically most isolated people were probably not reached and the sample doesn't represent them (see Jyrinki, 1977). Also those in the sample who did not answer might have been unable to understand the written Finnish. They were perhaps nearer the marginal people.

Personal contacts give usually more information than mere mailed questionnaires, and in this research the researcher met 25 subjects personally. However, the final view of society can be too positive because all respondents have been able to read some finnish to understand the instructions in the questionnaires and life stories.

8. SUBJECTS

Deaf and hard-of-hearing subjects were reached in different ways, so they are treated separately. Also the life stories and the questionnaires were submitted in separate procedures as can be seen in figure 8.

questionnaires from the deaf	questionnaires from the HH
life stories from the deaf	life stories from the HH

Figure 8: Four ways of receiving data

8.1. Reaching the deaf subjects

Deaf subjects answering the questionnaires

The Finnish Association of the Deaf (Kuurojen Liitto) has a computer-based register of deaf people over 16 years of age. In 1991, when the sample was taken, it included 3231 individuals (1597 women and 1634 men). This register was available, and a random sample of hundred deaf adults was taken. This sample was randomly divided into two groups of 50 persons. Written questionnaires were mailed to one half and the other half received identical questionnaires accompanied by a videotape with signed questions. In the following they are identified as "the paper group" and "the video group". The questionnaires had the five parts described above (knowledge, satisfaction, participation, values and attitudes, and also background information) as well as instructions for writing a life story. The rehabilitation secretaries were informed beforehand about the research because of the central role they play in the flow of information to the deaf.

Together 65 questionnaires were received, but only 46 could be accepted. Those 19 who were excluded, were hard-of-hearing or deafened, and all accepted were congenitally or pre-lingually deaf. The response rate varied in the two groups; in the "paper group" 19 (38%) and in the "video group" 27 (54%) responded.

An additional sample of 17 young deaf adults was taken from students of the Helsinki Folk High School for the Deaf. They were met personally and everything they wanted to have signed was signed to them. The response rate was 100% in this "personal group". The final sample answering questionnaires was 32 men and 31 women, ranging in age from 17 to 78, the mean age being 41 years, SD 18.

Deaf subjects writing life stories

The life stories were received in different ways and in far fewer numbers. The research was introduced in the Journal of the Finnish Association of the Deaf (Kuurojen lehti) and in the association bulletin in Helsinki. In these papers there was an issue about writing the life story, giving the outline "My life as a hearing-impaired person in Finland" and enclosing the same questions to lead the structure of the story and some questions providing the background information. This sampling system meant that the writers were active volunteers. The life story was also included in the questionnaire study. That meant that life stories were received in two ways, from people belonging to the register and from people reading the journal or association paper.
By soliciting stories from the 100 deaf subjects, by signing instructions to 17 subjects, and by soliciting stories in the journal and association paper, 51 stories were obtained in spring 1991. Of these 41 could be accepted. Ten stories were not accepted because they had only one sentence, such as "I have nothing to tell" or " I went to school in 1951". Of those who got the instructions via the random sample (100), 32 sent a life story and 23 were accepted. Fourteen stories were obtained via journal information and four stories from those who were met personally. The final sample of life stories were written by 20 women and 21 men; their average age was 35 years and their ages ranged from 16 to 73 years.

The final sample, including both the life story writers and those who answered to the questionnaires was 77 deaf adults. The reminder letter brought only one more answer from the deaf. Comparing the respondents and non-respondents brought no significant difference when looking the age or sex. The total number of subjects may not be counted together in the following table, because the structure was following: 63 deaf adults answered to questionnaires and 27 of these wrote also a life story. Additional life stories were obtained from 14 people, thus a total of 77 deaf adults participated.

Table 3: Deaf subjects according to sex and generation

generation of	deaf questionnaires		deaf life stories	
	men	women	men	women
war and shortage	13	7+2*	8	2
great change	5+1*	3+1*	2	1
suburban	4	5	4	2
rock	7	15	7	15
N	32	31	21	20
total N	63		41	

* age estimated according to the answers

The subjects are divided according to their age in four cathegories, following the generation system created by Roos (1988), the oldest meaning here people over 52, second oldest meaning people between 42-51 years, second youngest are people between 32-41 and the youngest are people under 31 years.

8.2. Reaching the hard-of-hearing subjects

The HH subjects were identified and contacted in three different ways.

1) The journal of the Finnish Federation of the Hard-of-Hearing (Kuuloviesti), distributed to all of its members, carried a description of the research project, and hard-of-hearing people were requested to send their address to the researcher if they desired to participate in the study. It also had an article about writing the life story in the same way as in the deaf journal (Kuurojen lehti).

2) There are over 80 local associations for the hard-of-hearing in Finland (Ojala & Pöntys, 1991). The researcher chose the addresses of ten (10) big associations in the cities of Helsinki, Vantaa, Espoo, Jyväskylä, Tampere, Kerava, Lahti, Mikkeli, Riihimäki and Uusikaupunki, wrote to their secretaries and asked them to describe the research project in their weekly meetings, collect volunteers' addresses, and send them to the researcher.

3) The researcher also met eight people personally in a rehabilitation course for hard-of-hearing individuals. There it was possible to discuss the project with them in detail and get extra information.

Together 68 HH adults participated in the questionnaire study. Of these 45 (66%) were women and 23 (34%) were men. The average age was 57 years, SD 18. Of these 68 participants, 56 wrote also a life story. In addition 41 life stories were received from subjects who did not submit a questionnaire, brining the total to 109 HH subjects. So the total numbers in table 4 can't be counted together. Unless stated, the age is estimated from the story: when people tell e.g. that they are retired, they are put in the oldest group.

Table 4: HH subjects according to sex and generation

generations	hard-of-hearing questionnaires		hard-of-hearing life stories	
	men	women	men	women
war and shortage	13	28	22	37
great change	5+1*	7	6	10
suburban	2	5	2	8
rock	2	5	2	11
N	23	45	32	66
total N	68		98	

* age estimated according to answers

The HH subjects were rather old, majority was retired. The way of contacting the deaf and HH subjects is summerized in the following table.

Table 5: Ways of contacting the subjects

subjects	sample type
deaf subjects	
Register of Finnish Association of the Deaf	random sample
Journal articles	volunteers
Finnish Folk High School for the Deaf	volunteers
HH subjects	
Volunteers from HH associations throughout Finland	volunteers
Journal articles	volunteers
Rehabilitation course	volunteers

And finally the distribution of data sources among deaf and HH subjects is summarized in table 6.

Table 6: Distribution of data sources among subjects

data sources	deaf	HH	total hearing-impaired
questionnaires	36	12	48
questionnaires + life story	27	56	83
life story only	14	41	55
N	77	109	186

Fourteen deaf and 41 HH people wrote only a life story: seven deaf men and seven deaf women, and sixteen HH men and 25 HH women. Together 186 hearing impaired people participated in this study.

8.3. Background information about the subjects returning the questionnaires

Complete background information was available only from those who returned the completed background questionnaire. This information is not available from those deaf and HH subjects who wrote only a life story (N=56). Their background information is obtained from the additional intructions which they received from the journals. Some facts can also be determined from their stories. The detailed information is in appendices 9 and 10, only the summary is presented here.

Summary of the background information about deaf subjects (see also appendix 9)
Percentage data refer to the percentage of those who returned the questionnaire. Frequencies of under ten are not indicated. Thirty-one (53%) deaf men and 28 (47%) deaf women completed the background questionnaire. They ranged in age from 17 to 78, the mean was 43 years and

the standard deviation was 18.The average deaf participant was a forty-three years old married man who was still working. His hearing loss was about 80 dB and he didn't use his hearing aid because he could't hear with it. His socio-economic situation was lower than that of his parents. He had two hearing children. He had attended deaf school and then a vocational school.

He was satisfied with his job and had not been unemployed. He lived in a house of his own. His friends were mainly hearing-impaired. He subscribed at least one newspaper and two magazines. He signed well and that was his main communication method at home. At work or in a shop or bank he used total communication but did not sign; he wrote, spoke and lip-read. Most of his communication difficulties were encountered at work. His reading, writing and speaking competence was moderate, speaking being evaluated lowest. During his free time he met friends or went out for a walk, jogged or got some other form of exercise. On holidays he usually stayed at home or travelled abroad. His life was seldom dull, and he was satisfied with himself.

Summary of the background information about HH subjects (see also appendix 10)

The background questionnaire was returned by 45 (66%) HH women and 23 (34%) HH men. They ranged in age from 15 to 87 years, the mean was 57 years and the standard deviation 18. An average person answering this questionnaire was a 57-year-old married HH woman who was retired. Her hearing loss was about 60 dB and it didn't bother her very much. She could communicate with the help of the hearing aid and she used it faithfully. Her socio-economic situation was a bit lower than her father's. She had two hearing children. She had attended a normal elementary school, which was a positive experience. After school she had attended a vocational school.

She was interested in all new things but wasn't studying just now. She didn't know sign language or MHS. When communicating with strangers she used both speech and lip-reading. She lived in a house of her own and she received two newspapers and magazines there. She had two hobbies (sports and handicraft) and her friends were both hearing and hearing-impaired, but not deaf. Her life was seldom dull and she was quite satisfied with herself, but the bad hearing was irritating.

The most usual hobbies of the HH were sports, handicraft and reading, requiring no communication. People were very little interested in going to restaurants, where communication might be difficult.

8.4. Background information about the deaf and HH subjects writing life stories only

Those 14 deaf and 41 HH people who wrote only a life story were seven deaf men, seven deaf women, sixteen HH men and 25 HH women, (table 7).

Table 7: The deaf and HH subjects who participated only with a life story

generation	deaf		hard-of-hearing	
	men	women	men	women
war and shortage	1	0	13	14
great change	0	1	2	4
suburban	1	0	1	2
rock	5	6	0	3
N	7	7	16	26
total N	14		41	

The deaf writers were much younger than the HH writers. All the deaf writers reported they have been deaf since birth, however the age of onset varied a lot among the HH writers. Twenty-one per cent of them had been born as HH, 41% became HH during their school years, 31% as grown-ups and 7% when retired.

8.5. Summary

Counting the deaf and HH people together, 186 hearing impaired people participated in this study (table 8).

Table 8: The subjects of this research

	deaf	HH	N
questionnaires	36	11	47
questionnaires+life stories	27	57	84
life stories	14	41	55
N	77	109	186

The life stories were received from people living all over Finland, as is seen in table 9. The provinces are listed beginning from the north. The majority of the writers are from the southern parts of Finland.

Table 9: The place of residence of the life story writers

The province of	deaf subjects	HH subjects
Lapland	0	9
Oulu	1	13
Vaasa	1	1
Middle Finland	3	12
Kuopio	2	2
North Karelia	1	0
Mikkeli	7	2
Häme	5	9
Kyme	1	10
Turku & Pori	7	20
Uusimaa	13	17
N	41	95

Three HH subjects did not tell their place of residence. A total of 186 hearing-impaired adult subjects were contacted and their view of society was studied through questionnaires and life stories.

PART C
9. RESULTS

The results are presented in detail in the foregoing sections, in studies I to V, and the main results are presented here. Factor analysis was used in studies I and II to compress the results and the factors are presented here. Also the results received when using t-test, ANOVA, regression analysis and frequecies are presented. A three-dimensional model, a factor-space was formed out of factor scores and it was used to summarize the results from men and women, together and separately.
The results in studies III and IV are descriptive and excerpts from life stories are used a lot in these studies. That is why quotations are not used in this short presentation of the main results.

9.1. The view of society (question one)

The main result was that the view of society seen through the questionnaires was more positive than the results obtained from the life stories.

Factor analysis (appendix 7 and 8) was used to compress the results in the questionnaire study and three knowledge factors were found in both groups. The factors for the deaf and HH are seen in table 10 .

Table 10: The factors from the knowledge questionnaire

	deaf	HH
knowledge	I institute factor	I civics factor
	II legal factor	II institutional factor
	III coping factor	III personal affairs factor

Central themes that rise from the analysis are coping as a citizen and the complexity of different institutions. Both groups share these themes and they report having problems in these areas

The satisfaction questions were compressed into two satisfaction factors for the deaf and three factors for the HH, (table 11).

Table 11: The factors from the satisfaction questionnaire

	deaf	HH
satisfaction	I society service factor	I personal matters factor
	II information and education factor	II general satisfaction factor
		III freetime factor

Two different themes can be seen here, personal satisfaction and satisfaction with the society in general. The subjects were satisfied with society in general, but personal matters caused dissatisfaction.

When looking at the activity/participation in society, two factors for the deaf and three for the HH were found.

Table 12: The factors from the activity questionnaire

	deaf	HH
activity	I impairment activities factor	I political activity
	II ideological factor	II impairment activities factor
		III religious activity factor

The common elements are activities concerning ideological matters and activities intended only for the hearing-impaired.

The view deaf adults had of Finnish society was a minority view. The deaf were satisfied with Finnish society in general; they had received many services, but the most necessary ones were not satisfactory. They did not get study interpreters, and professional equality was consequently impossible. Also the many predjudices faced when using sign language and being unable to speak, were a reality for many. Age seemed to be important when considering general satisfaction. Older people were more satisfied, perhaps because the demands of society didn't touch them anymore. So many improvements had been made in their lifetime; they started with almost nothing and with no expectations.

The view of society seen in the life stories (study III), was distinctly different in stories written by older and younger people. Younger people have to face the demands of society more than those who are retired. Young people notice that their teaching at school has not been satisfactory, their educational possibilities are limited, they are offered sheltered work or other minor jobs. Young persons have learned that they have the right to demand more services. They have higher expectations than the older ones.

The hard-of-hearing were satisfied in general. Rauste-von Wright (1987) obtained similar results when studying adult satisfaction with life in Finland in general, people were mostly satisfied. Mowry (1988) studied 38 deaf and 43 HH adults and her subjects also reported being satisfied with their life situation. The HH in the present study had received much equipment which made their life easier. Communication was still difficult and impaired hearing limited contacts a lot. This was most clearly seen in the life stories. Even relatives and family members often forgot to take the impairment into consideration.

9.2. Differencies between the views of society of the deaf and HH (question 2)

The dimensions of the society are dealt with separately here to show the differences in detail between the deaf and HH subjects´ view of society.

Knowledge
This section was answered by 62 deaf and 66 HH subjects. The level of knowledge was good for both groups, a bit better among HH, possibly due to the language used. Most problematic were institutional matters conserning responsibilites of a municipality, and of a council for the disabled, use of taxation money and knowing what a trade union is. These matters are also difficult for hearing people. Deaf and HH women had better level of knowledge than deaf and HH men. Age was important, young people had better knowledge in both groups than the older ones. The better the communication skills were, the better was the level of knowledge. Good signers among the deaf and good readers among the HH scored high.

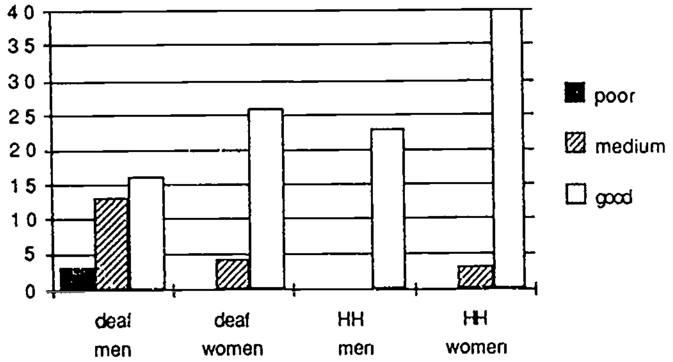

Figure 9: Knowledge scores of deaf and HH men and women (poor=0-29, medium=30-59, good=60-91points)

Satisfaction

This section was answered by 62 deaf and 68 HH subjects. Equality with the hearing, educational possibilites and services from Finnish society were matters that caused dissatisfaction in both groups. General satisfaction with Finnish society was good, but personal matters caused dissatisfaction. The deaf were not satisfied with the mass media as there were too few television programmes for them in tv (no text). They were also dissatisfied with teaching at school and study possibilities. The possibilities of getting information also seemed to be unsatisfactorily organized. The HH were dissatisfied with the public services, e.g. lack of tele-loops, and continuous background noise in many places. They were also dissatisfied with their salary and the interest politicians showed for the matters of hearing-impaired people. Deaf men were more satisfied than deaf women, but HH women were more satisfied than HH men. Some situations turned the hearing loss into a handicap, but not all.

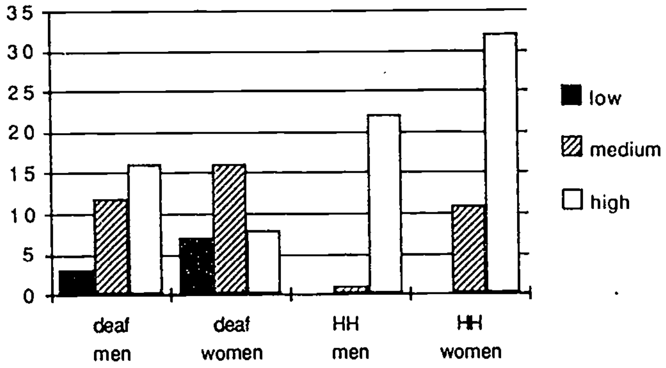

Figure 10: The satisfaction scores of deaf and HH men and women (low=1-19, medium=20-39, high=40-60 points)

Participation
This section was answered by 62 deaf and 68 HH subjects. Active participation in church activities and aural associations were common for both groups. This can be due to real interest in these activities, or the reason might be that the association and congregation are the only places where there is an interpreter; there are also other people with communication difficulties, tele-loops or other signing people. The deaf used an interpreter, but the HH people did not. The deaf knew how they could influence in their own affairs more than the HH group. However, participation in rehabilitation guidance or adaptation courses was low in both groups. Older HH people seemed to participate more in societal activities than younger ones. Such a difference was not observed in the deaf group. HH women were most active.

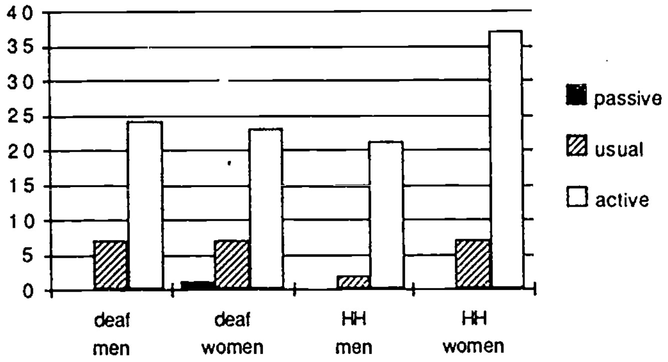

Figure 11: The activity scores of deaf and HH men and women (poor=0-11, medium=12-23, active=24-34 points)

Values

This section was answered by 62 deaf and 68 HH subjects. The values were almost identical: own health, home, family and children. The deaf also mentioned job, HH did not. Perhaps this is due to the age structure, the HH subjects were older, the majority was retired. Rauste-von Wright (1987) found similar values among hearing adults: own health and own children were the most important values. Also secure job, good housing and world peace were mentioned by the majority.

Attitudes

The deaf (N=53) rated other deaf people most positively, the HH (N=65) people rated other HH and deaf most positively. The most negative ratings received the decision-makers in society from both groups. The deaf considered HH and hearing people to be equal, but HH people rated themselves more positively than hearing people.

Summary

When subjecting the questions from the three parallel questionnaires (knowledge, satisfaction and participation) to factor analysis, they grouped nicely according to these questionnaires. The factor scores were used to make a three-dimensional model to summarize the results (see figures 8, 9 and 10 in study II and figures 12,13 and 14 here). In this model men constituted a more homogeneous group; men seemed to be more alike than women in both groups, deaf and HH. Deaf men were satisfied and active in spite of having less knowledge. In general men were rather homogeneous, receiving mostly positive values; women were more heterogeneous, receiving both positive and negative values.

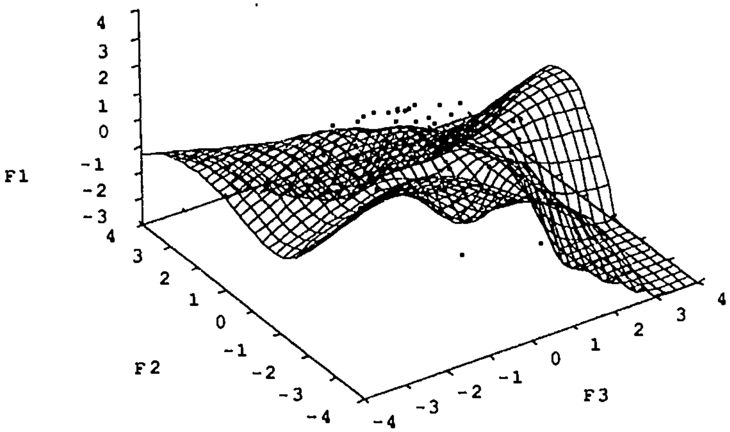

Figure 12: All deaf participants in factor-space
(F1=knowledge factor, F2=satisfaction factor, F3=participation factor)

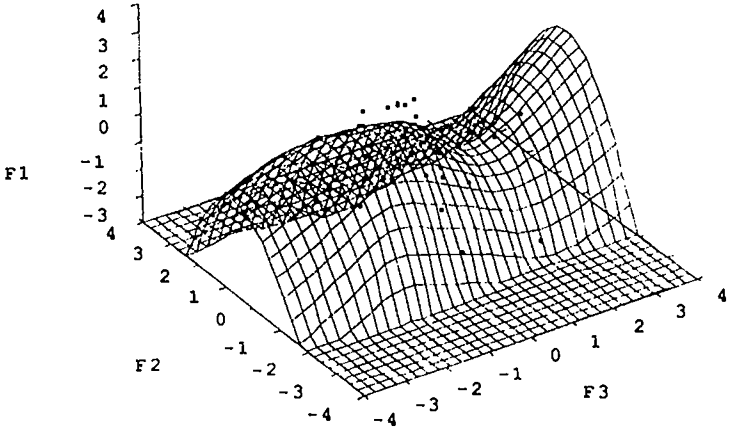

Figure 13: Deaf men in factor-space
(F1=knowledge factor, F2=satisfaction factor, F3=participation factor)

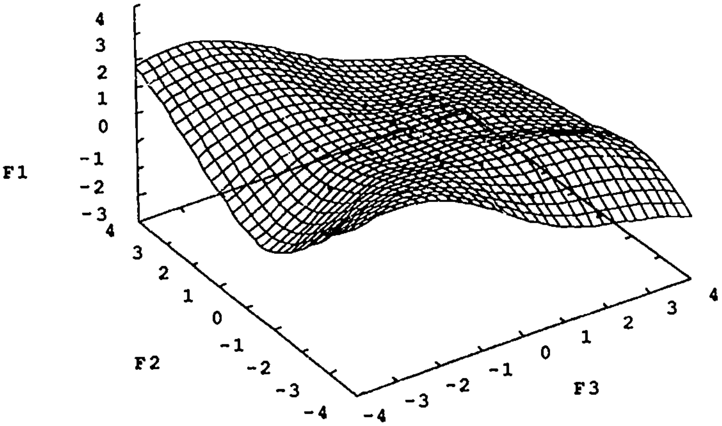

Figure 14: Deaf women in factor-space
(F1=knowledge factor, F2=satisfaction factor, F3=participation factor)

The data is not broad enough to draw conclusions considering gender, and gender differencies were not the subject of this research, but it might be an interesting issue for future studies.

The biggest difference between the deaf and HH groups was observed in comparisons of the social and cognitive element of the view of society. The social element was problematic for the HH because communication was always at least a bit difficult and they didn't have a minority group with which to identify themselves. Instead they saw themselves as integrated into the hearing society. The deaf, who belonged to the deaf community, had no communication difficulties there. The negative elements in their view of society were also concentrated in the social part, in satisfaction. The deaf didn't get the education they wanted, their years in school had been often waste of time, their basic knowledge was limited, partly because of communication difficulties with hearing teachers, parents, educators, etc. At that time they weren't getting the information hearing citizens get and they didn't have their study possibilities. The HH seemed to have more opportunities.

9.3. Methodological conclusions (question 3)

The approach used with the questionnaires is reported separately in study V, which deals with the personal contact and the signed or written questionnaires for the deaf.

Personal contacts
Most answers were received through personal contacts. This seems to be a method that gives the researcher more information because the subjects are able to ask and comment. However, it is time consuming and expensive.

Signed questionnaires
Signed questionnaires increased motivation, but not the level of results. The signs for the video were pretested in the schools for hearing-impaired, but not in schools for deaf adults, which seems to have been an error. After the research, the video was shown to deaf adults (N=29) in a vocational course. They commented that the interpreter should have been deaf, the sign language was too neutral with no face expressions or other important elements of signing. People also commented that using the two languages together was confusing. The questions in the video are in the structure of sign language and their written form in Finnish has a different structure. The choices were signed and the subject had to decide which choice to mark while looking.

Written questionnaires
Written questionnaires were suitable for HH subjects, when multiple-choice questions were used. They were also suitable for deaf people. Open-ended questions were more problematic because the deaf had to write their answers in a foreign language.

Qualitative or quantitative approach
The life story approach was not very suitable for the deaf in the written form as used here, but the approach seemed to be good for the HH subjects. Most deaf stories were short and narrow, the language was poor and not everybody had understood the given questions correctly. The stories received from the HH writers were long and informative, many of the writers ignored the questions, but still gave the same information and even more. When both groups are considered, the most important fact was that without the

information received from the stories, the view of society might have been too positive because almost all the scores received from the questionnaires were positive. The reality was seen in daily life from the stories. Problems people met every day with the impaired hearing were described, negative aspects were not ignored. Analysing such stories is difficult and more subjective than using e.g. factor analysis, however examples from the real stories are provided in studies III and IV to convince the reader.

According to the empirical part and also accoprding to the theoretical literature review of this research, written questionnaires are the most unsuitable method of surveying the opinions of deaf people. Signed questionnaires are second best and personal contact is the best way. When thinking of the HH subjects in this research, personal contacts were good, but not mandatory. It is recommended when possible. Using a multi-method approach is good when studying phenomena which are part of real life. Mere facts can be elicited by multiple-choice questions, but they seem unsatisfactory to describe a view of society.

9.3.1. The hypotheses

Hypothesis one was verified from the point of view that using sign language gave more answers. It was not verified from the point of view of better answers. The level of the knowledge was not higher among those who received the signed version of the questionnaires.

Hypothesis two, that HH people see Finnish society more positively, was not verified. They did not have a group identity and they seemed to be more lonely than the deaf. However, their goal of educational equality was better fullfilled than that of the deaf.

Hypothesis three was surely verified. The stories received from deaf were short and the language was poor. If the story could have been signed it would have been much better.

9.4. Summary of results

In Finnish society the deaf associate with each other and communication with their peers is easy. When communicating with the hearing world, the deaf prefer to use an interpreter, especially when the matter is important. They have their own small society, the deaf community inside the hearing society. Different age groups have different views. The younger ones see more clearly the shortcomings of their education, the older ones are rather satisfied because they have more historical perspective.

The hard-of-hearing don't have a group of their own within which communication would be easy. Although the subjects were received through their associations, people did not write about their own community or own culture. When the hard-of-hearing communicate with the hearing world, they use their hearing aid and lip-reading ability. If the communication does not succeed, they blame themselves or the circumstances. Because they face problems so often they are easily isolated. Optimal places for communication, with no background noise and only few people talking at a proper distance to see the lips, are rare. They often feel irritation and alienation. Many of them, however, find the technical equipment good and they are satisfied with it. Some of them have the strength and courage to demand services in written language if necessary. Society in general is good, but it takes the HH people too little into consideration.

The results could be compressed into the following figure:

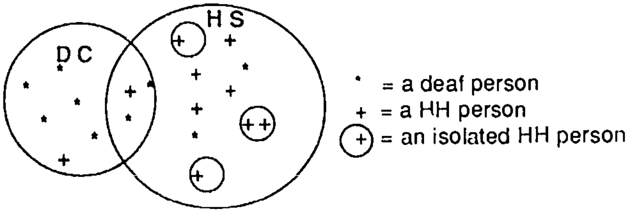

Figure 15: Hearing-impaired people in society (DC=deaf community, HS=hearing society)

Communication difficulties turn the impairment into a handicap for both groups in many situations. In society deaf people group together when possible, and they find a minority solution for coping in society. HH people are easily isolated. They find isolation as a solution, but by doing so they don't feel well.

9.4.1. Reliability

The reliabilty of the questionnaires was computed by using Cronbach's alpha, and the estimates were rather good, (table 13).

Table 13: The reliability estimates

Questionnaires	Split-half correlation		Coefficient alpha (all items)	
	deaf	HH	deaf	HH
knowledge	.53	.54	.78	.66
satisfaction	.73	.67	.76	.75
activity	.53	.44	.59	.50
attitude	.94	.53	.92	.64

Although the numbers were good, some aspects need comments. The knowledge questionnaire was a bit too easy, the majority completed it well. It could have been longer because there was plenty of items in the curriculum. The chosen items covered only the very basic knowledge.

The activity section had the lowest estimate. It was the shortest section and the questions had low correlation with each other. It could have been longer. The satisfaction questionnaire made it possible for the subjects to write why they were dissatisfied with something, but very few comments were received. Values were more or less a list, from which it was easy to count the frequencies.

The reliability estimate of the attitude section was high. Attitudes were studied with a semantic-differential scale. On the basis of their individual characteristics (friendly-unfriendly, warm-cold, industrious-lazy, trustworthy-unreliable) five groups of people (1. hard-of-hearing and 2. deaf people in general, 3. hearing service workers and 4. decision makers, and 5. hearing people in general) were evaluated. Such questions make generalizations necessary, even though, as many subjects commented, they are not good when considering individual people. However, they gave a slight estimation of these groups.

Reliability is not enough, validity is necessary. Validity is most problematic when we measure a theoretic construct (Karma,1983; Eskola, 1973), as the view of society. Here it was a matter of successfully operationalizing the construct 'view of society' with the dimensions used. The operational definition of the view of society should be near the theoretical definition (see also Eskola, 1973). The chosen dimensions (Helve, 1987) are seen as part of the view of society. They are the viewpoints from which that construct is approached. Probably they don't cover the whole construct, and that is why the life stories were also used.

The reliability of the life story research is more complicated. The reproducibility of the results of the analysis of deaf stories was high when using two researchers. The HH stories were analysed only by the present author, after the deaf stories had been analysed. The stories were read many times, and only then were the themes and types decided. Of course the subject validation would be the last criteria, but it is not used here. Giving such stories to "ordinary" people, meaning people who have no special knowledge about hearing-impaired people, might lead to a different interpretation of the stories, especially the deaf stories. It is helpful to be familiar with the difficulties deaf people have when writing Finnish and to be familiar with the structure of sign language. The shortcomings in Finnish could easily be interpreted to be a result of lack of general competence, which they are not.

Triangulation was used in this research, and the findings with regard to the view of society, were not similar with different methods. This was due to the different impacts the methods had on the presentation of the concept 'view of society' (see Tynjälä,1991). In qualitative research, language and meanings are important. The analysis involves mainly interpreting the meaning (Tynjälä, 1991) of the writer using hetrmeneutical dialog.

The subjects were chosen partly at random and some of them were volunteers who sent in their address to the resercher. The most isolated or lonely or marginalized hearing-impaired persons were probably not reached. The results of this study therefore reflect the attitudes the better-off hearing-impaired who have the ability to read Finnish so that they can answer written questions, although some of them could see the questions signed. To study the view of society this marginal group has would demand personal contact, interviews and observations.

The view of society was determined according to the curriculum in the questionnaires and only the main points from the curriculum os social studies were taken into consideration. The 'real' view of 'probably more broad a concept and with other questions different aspects about it could appear.

10. DISCUSSION

The main purpose of this study was to find out how deaf and HH adults view Finnish society. Differences in views between these two groups were also of interest. These questions were studied through questionnaires and through stories about being a hearing-impaired Finn. Research methodological questions focusing on the use of questionnaires, on the language (Finnish or sign language) and the qualitative/quantitative dilemma were also research aims. The extent of integration into society, which is a main goal in education, and adaptation to the impairment can also be discussed on the basis of this research.

The two structures of the view of society which emerge in this research, are an isolation structure and a minority structure. Although there are also people whose relation to and status within Finnish society lies somewhere in between. When thinking globally, the hearing-impaired in Finland have a good situation, which many subjects mentioned. Services from society to deaf people are nonexistent in many states (Joutselainen, 1991). The deaf considered themselves to be a linguistic minority, the HH were rather a group of people who had problems with their hearing, a heterogeneous group. Ogbu (1993) distinguishes between voluntary and involuntary minorities, meaning e.g. immigrants who have moved, more or less voluntarily, to an other country, and refugees or migrant workers, who have not moved voluntarily. These people have a cultural frame of reference, which refers to a correct way of behaving. It includes beliefs, preferencies and practices considered appropriate for the group. If the members cross these cultural boundaries they can be said as trying to betray their own people.

The deaf could voluntarily choose to participate in the deaf community, the HH were seldom voluntarily hearing-impaired. It gave them a negative stigma, and it led easily to the possibility that hearing people would underestimate them.

The behavioral norms differ among deaf people and among hearing people. The hard-of-hearing are somewhere in between. The use of e.g. facial expressions, eye-contact and touching are used much more among deaf than among hearing people (e.g. Padden 1989). They are part of the deaf minority culture. The hard-of-hearing live nearer the dominant culture and they don't usually adapt behaviour patterns from the deaf culture; sign language has often been offered to them, but very few have wanted to learn it. On the other hand, oral language ability is not valued high among the deaf. Oral language skills could be considered to be a second language by the deaf, as well as sign language skills by the hard-of-hearing. However, learning a new language is considered as giving up the native language according to some minorities (see Ogbu 1993).

People want to belong to a group which gives them satisfaction and pride rather than shame. The linguistic majority identity remains intact without any special efforts; it is not threatened and so there is no need to reinforce it. However, minority members have a different reality, their identity can be in need of reinforcement (Liebkind, 1984). The Deaf Pride movement, which started in the USA, is a sign of that reinforcement (see e.g. Sacks, 1992; Preston, 1994). The movement gives deaf people courage and self-reliance, the message being that it is no shame to be deaf, rather vice versa.

According to the research results here, the deaf seem to have obtained minority status within Finnish society and with regard to their problems in communication. The deaf prefer to stay with equals, and when communicating with the hearing majority they use interpreters and/or writing; some of them also speak. They are part of the society, and now they have began to demand their rights, especially equality, e.g. educational equality. It could be fulfilled with more interpretation services and better basic education.

The hard-of-hearing have, in contrast, found isolation as a solution with the Finnish society and with their communication problems. They prefer to stay away, and they don't participate if they can't use their equipment effectively. Some of them have found the aural associations and use interpreters, but the majority rely on their hearing aid, which is not usable in every situation. Finnish society is seen as a good place for hard-of-hearing people in general, however, participation in everyday activities demands tele-loops in offices and other public places, tele-loops which are strong enough and which are in service. A mild hearing loss seems to limit participation less than a severe one.

The use of two research methods, qualitative and quantitative, seemed to be suitable. The information received about the hard-of-hearing and their view of society was rather positive according to the questionnaire study. However, in the life stories most of the writers reported everyday problems and difficulties in public places such as shops and banks, and also at home. The reality could be seen in the stories more clearly.

The language problem was also discussed in this study. Language is guided by cognition, which functions to represent the world and to enable an individual to act effectively. Language operates as a vehicle for expressing the state of cognition (Gergen & Semin, 1990). In this study the deaf had to operate in a foreign language, they could not use their cognitive abilities effectively, but a video approach would have made that possible, people would surely have had much more to say.

The identity of a person, who s/he thinks s/he is and to what group s/he belongs, are important matters. Some social identities seem to be better than others, and identity has an effect on the view of society. A stigmatized identity is unwanted (see Goffman, 1963), and it easily makes the view of society negative. Negative self-image is not rare among minority members (Liebkind, 1984). A very good example of the importance of identity and reference group was provided by a mentally retarded person, who had a strong reference/identity group. He was asked : "Are you retarded?" His strong answer was: "No, I'm Catholic!" (Biklen & Moseley, 1988). We could ask: "Are you disabled?" and the answer could be: "No, I'm deaf", or "No I'm hard-of-hearing".

Language is important in our way of structuring society. Gergen & Semin (1990, 14) write about the everyday understanding and explanation of human actions, and they say that "everyday understanding exist in the language of the culture" and that "words gain their meaning from social interchange". In a book called "Deaf in America. Voices from a Culture", Padden & Humphries (1988) tell of the different use of words and signs, e.g. the word hard-of-hearing can be used with adjective "a little HH" or "very HH", and we understand that a person who is very HH hears nearly nothing. However, the deaf (or the Deaf, as people positively inside the culture would write) means the reverse, because they have a different starting point and different deviations: a person who is very HH is a long way from hearing-impaired, near those who hear. What we actually mean by words is not always easy to know.

Allardt (1976) writes about the four dimensions of well-being and his model includes: 1) welfare and 2) happiness on the horizontal axis, and 3) standard of living and 4) quality of life on the vertical axis. Welfare is defined according to the fullfilment of basic needs. When comparing this to the results of the present research, these basic needs are quite well satisfied according to deaf and HH subjects. Happiness is connected with subjective feelings and experiences. Standard of living means material welfare, which could have been better according to some subjects. Quality of life means good personal relationships between people and the conditions of physical existence. In the deaf group this was fullfilled quite satisfactorily, while the HH people had more negative mentions. Deaf people living in a hearing neighbourhood with limited interpreter services, felt lonely. The basic needs can be compressed into three stages: having - loving - being (see Allardt, 1976). The last one seemed to be most difficult for hearing-impaired subjects in Finnish society; marginalization is near when the needs for being are not fullfilled.

Future perspectives

According to this research the education for the deaf and for the HH children could be better organized. When thinking of the entire lifespan, early diagnosis of hearing impairment seems important. Early sign language, if the baby is deaf, and a suitable hearing aid if s/he has usable hearing, are important. The schools should have separate classes for deaf and HH pupils, and deaf classes should use sign language with fluently signing teachers Well equipped classes for the HH, with a possibility to choose signing or speaking as the basic language would be good.

After-school studying with an interpreter for the deaf, and with good amplification for the HH, would make study possibilities more equal with those of the hearing. Information concerning communication with the hearing-impaired should be distributed extensively throughout society. Necessary equipment should be available and hearing situations should be more ideal. Officers, nurses, doctors, clerks need basic knowledge about hearing impairment to avoid prejudices and to communicate better

This list could be longer and better. However, these were topics which came up in the data. An important aspect was the need for individual solutions. There are no general recommendations concerning every deaf and HH person.

Further studies using signed life stories, concentrating on the inner speech of the deaf, studying the early education and communication of the hearing-impaired and studying the optimal way of using the hearing rests available would be interesting. An important and difficult matter is the general notion of human existence which should be broadened, remembering different ways of communicating. Fullfillment of these needs might make the view of society more positive.

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LIST OF APPENDIXES

LIST OF TABLES IN APPENDICES

Background APPENDIX 1

1

1) First name ______________________
2) Age ______________________
3) Present residence ______________________
4) Occupation ______________________

5) Sex
    1. I am a man
    2. I am a woman

6) Marital status
    1. Married
    2. Single
    3. Cohabiting
    4. Divorced
    5. Widowed

7) Aural disability
    1. I was born deaf.
    2. I became deaf as a child. At what age? ________
    3. I became deaf as an adult. At what age? ________
    4. I am hard-of-hearing.
    5. Other, what? ______________________

8) Hearing aid
    1. I use a hearing aid at all times
    2. I use a hearing aid sometimes
    3. I do not use a hearing aid

9) Hearing
    1. I cannot hear with a hearing aid
    2. I hear noise with a hearing aid
    3. I hear sounds with a hearing aid
    4. I hear speech with a hearing aid
    5. I can converse with a hearing aid

10) How high is your hearing impairment in decibels
    1. Right ear ________ dB
    2. Left ear ________ dB

11) Besides a hearing impairment, do you have other disabilities?
    1. Yes, what? ______________________
    2. No

12) My mother is
    1. deaf
    2. hearing
    3. hard-of-hearing

13) Mother's occupation ______________________________

14) My father is
    1. deaf
    2. hearing
    3. hard-of-hearing

15) Father's occupation ______________ ________________

If you are not cohabiting/married, move on to question 18

16) If you are cohabiting/married, is your spouse
    1. deaf
    2. hearing
    3. hard-of-hearing

17) If you have children, how many of them are
    1. deaf _______
    2. hearing _____
    3. hard of hearing ______

18) Basic education: I have attended
    1. a comprehensive school for the Deaf
    2. a comprehensive school for hearing children
    3. I matriculated from a school for the Deaf
    4. I matriculated from a school for hearing children
    5. Other, what? ________________________________

19) In your opinion, school is
    1. enjoyable
    2. uninteresting
    3. I do not know

20) When you went to school, was signing allowed?
    1. Yes, signing was allowed
    2. No, signing was not allowed
    3. I do not use sign language

21) Vocational courses
    1. I have taken vocational courses
    2. I have not taken vocational courses, move on to question 23

22) How long was the vocational course? ____________________

23) Vocational school
    1. I have graduated from a vocational school
    2. I have not attended a vocational school, move on to question 25

24) How long was the vocational school? ______________________

25) Studies
    1. I have studied in higher education programs
    What did you study? ________________________________
    2. I have not studied in higher eduation programs, move on to question 26

26) Are you interested in studying new things?
    1. Yes
    2. No

27) Are you currently studying something?
    1. Yes What? ____________________________________
    2. No

28) Current occupational information
    1. I am working
    2. I am unemployed
    3. I am retired
    4. I am studying
    5. I take care of my home
    6. Other, what?

29) If you are working, how did you find your job?
    1. I found it myself
    2. I received help in finding it. By whom? ______________________

30) If you have been unemployed, how long did it last?
1. 1-6 months
2. 7-12 months
3. over a year
4. I have not been unemployed

31) Are there other hearing-impaired people at your work?
1. Yes
2. No

32) Are you satisfied with your present work?
1. Yes
2. No
3. I am not working

33) My present apartment is
1. my own
2. rented
3. I am homeless
4. a student apartment
5. a service apartment
6. I live with relatives
7. I live with friends

34) What are your hobbies?

____

____

35) Does your circle of friends include
1. only deafs
2. only people hard-of-hearing
3. only hearing people
4. people evenly from all the above groups
5. more hearing-impaired people than hearing
6. more hearing people than hearing-impaired
7. Other, what? ______________________________

36) Do you have a textphone?
1. Yes
2. No

37) Do you have a teletext?
1. Yes
2. No

38) Do you have a radio?
    1. Yes
    2. No

39) Do you have a computer?
    1. Yes
    2. No

40) How many newspapers do you subscribe to? _______________

41) How many magazines do you subscribe to? ________________

Communication

42) Do you know how to sign
    1. Yes, well
    2. Yes, a little
    3. No

43) Do your fellow workers know how to sign?
    1. Yes how many of them? __________________
    2. No

44) How do you converse at your work?
    1. I speak
    2. I write
    3. I sign
    4. Through lip-reading and speech
    5. Other, what? ___________________________________

45) How did you communicate at home when you were a child?
    1. We spoke
    2. We wrote
    3. We signed
    4. Through lip-reading and speech
    5. Other, what? ___________________________________

46) How do you communicate at home now?
    1. I speak
    2. I write
    3. I sign
    4. Through lip-reading and speech
    5. Other, what? ___________________________________

47) How do you communicate at the store or at the bank?
   1. I speak
   2. I write
   3. I sign
   4. Through lip-reading and speech
   5. Other, what? ____________________

48) Did you have communication difficulties with being understood as a child?
   1. Yes, sometimes
   2. No, I did not
   3. Yes, often

49) Do you have communication difficulties with being understood at home now?
   1. Yes, sometimes
   2. No, I do not
   3. Yes, often

50) Do you have communication difficulties at work?
   1. Yes, sometimes
   2. No, I do not
   3. Yes, often

51) Do you know how to use the MHS system? (mouth-hand system)
   1. Yes
   2. No

52) In your opinion, is your own speech
   1. good
   2. fair
   3. poor

53) In your opinion, is your ability to read
   1. good
   2. fair
   3. poor

54) In your opinion, is your ability to write
   1. good
   2. fair
   3. poor

Use of Time

55) What leisure time activities do you have?
   1. I visit friends
   2. Friends visit me
   3. I go to the movies
   4. Exercise
   5. Handicrafts
   6. I go to pubs
   7. Other, what? ____________________

56) Where did you spend your vacation last sommer?

____

57) Where did you spend your vacation last Christmas?

____

58) What do you usually do at weekends?

____

59) How much time each day do you spend on travels to and from work?

____

60) How much time in a day do you spend on housework ? __________

61) How often is your life boring --- you have nothing to do, and you do not even feel like doing anything?
   1. Almost all the time
   2. Quite often
   3. Seldom
   4. Never

62) Are you content with yourself?
   1. Yes
   2. No, why not? ____________________
   3. I do not know

63) What kind of a person would you like to be?
   1. The person I am
   2. Other, what? ____________________

64) Would you like to tell me more, e.g. about your hopes or about something else?

____

____

Thank you for your responses!

Knowledge

First name: ____________________________

You will be asked various questions connected with society. Answer by circling one or more correct alternatives and by writing your responses on the lines when appropriate.

Example
1) Hearing-impaired people are
    1. the Deaf
    2. the Blind
    3. people hard-of-hearing

---

1) Circle those services which society provides for a hearing-impaired person.
    a. interpretation service
    b. adaptation course
    c. textphone
    d. food
    e. provision of clothing

2) The father's last name is Virtanen, the mother's last name is Salminen-Virtanen, what is the child's last name?
    a. Virtanen
    b. Salminen
    c. Salminen-Virtanen
    d. I do not know

3) Circle the sentences that are true of the Finnish Comprehensive School
    a. It is free.
    b. It lasts 9 years.
    c. If desired, one can enter into a university directly after the comprehensive school.
    d. We have an obligatory pre-school.

4) How can a hearing-impaired person acquire an occupation? By studying
    a. in general or special vocational schools
    b. only in vocational schools for hearing-impaired persons
    c. I do not know

5) Can a hearing-impaired person study at a university?
    a. No, why not? ________________________________
    b. Yes

6) In your opinion, what does the Council for the Disabled do?
    a. advises municipal authorities
    b. improves services for the disabled
    c. decides issues for the disabled
    D. I do not know

7) Which of the following belong to the municipality?
   a. the maintenance of schools
   b. the passing of laws
   c. the organizing of health service
   d. the maintenance of a swimming pool
   e. I do not know

8) Finland is a republic. What does that mean?
   a. everything in the country is divided equally
   b. the country is ruled by a king
   c. the country is ruled by a president
   d. I do not know

9) What does the Parliament do?
   a. passes laws
   b. same as the government
   c. manages the national economy
   d. I do not know

10) What is each Finnish citizen responsible for? (duties)
   a. pay taxes
   b. obey the Finnish law
   c. vote
   d. I do not know

11) What rights does everyone have solely because they are Finns?
   a. right to go to school
   b. free health care
   c. a monthly allowance
   d. freedom of religion
   e. I do not know

12) What does the country's government do?
   a. puts the Parliament's decisions into effect
   b. is in charge of traffic lights
   c. manages the country's financial affairs
   d. I do not know

13) What is a trade union?
   a. an obligatory union for people working in an occupation
   b. a voluntary union for people working in an occupation
   c. a pressure organization
   d. I do not know

14) Where does an unemployed person receive money in Finland?
   a. from the National Board of Social Welfare
   b. from the unemployment benefit funds
   c. from the Finnish Red Cross
   d. I do not know

15) Finns have a high standard of living. That means that
    a. we are not doing well
    b. Finland is a poor country
    c. Finland is a rich country
    d. I do not know

16) Where do the elderly (over 65 years of age) receive money?
    a. from the National Board of Social Welfare
    b. from pension
    c. from earned income
    d. I do not know

17) How is the price of food (e.g. the price of potato) determined?
    a. the shopkeeper can set the price himself
    b. farmer's costs + transport costs + shopkeeper's costs
    c. the farmer sets it
    d. I do not know

18) What is the money from taxes spent on?
    a. businesses use it
    b. on health services and school expenses
    c. on public transportation
    d. I do not know

19) Can signing be taught in schools for hearing-impaired persons?
    a. Yes
    b. No

20) Name a couple (1-2) of the largest Finnish newspapers.
    a. ______________________________
    b. ______________________________

21) Is there video material available for hearing-impaired people?
    a. Yes
    b. No
    c. I do not know

22) What differentiates the political Right from the Left?
    a. merely the name
    b. the thought of who manages the economy
    c. the seating arrangement
    d. I do not know

23) What parties are there in Finland? Name 1-3 of the largest parties.
    a. ____
    b. ____
    c. ____

24) Who can vote in general elections?
  a. everyone living in Finland
  b. every Finnish citizen 18 years of age and over
  c. every Finnish citizen 20 years of age and over
  d. I do not know

25) According to Finnish law, what is not allowed?
  a. stealing
  b. smoking
  c. striking a child
  d. I do not know

26) For what crime is a fine given?
  a. incorrectly parked car
  b. speeding
  c. murder
  d. tramping over grass

27) What are the police allowed to do?
  a. to catch a drunk
  b. to make a raid on a home
  c. to stop a car
  d. I do not know

28) The Finnish Armed Forces include
  a. the navy and the army
  b. the navy, the air force and the army
  c. only the army
  d. I do not know

29) What is the treaty of friendship, co-operation and mutual assistance?
  a. the United Nations
  b. a treaty of friendship between Finland and the Soviet Union
  c. a treaty of friendhip between Finland and Europe
  d. I do not know

30) What does the abbreviation EC mean?
  a. European Community
  b. European Convention
  c. English Convention
  d. I do not know

Thank you for your responses!

First name: ____________________

Your opinion in various matters will be asked. Answer by circling one or more correct alternatives and by writing your responses on the empty lines when appropriate.

---

1) Are you satisfied with the services that society gives you as a hearing-impaired person?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

2) Were you satisfied with the education you received in your schooldays?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

3) Are you satisfied with your opportunities for studying?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

4) Are you satisfied with your opportunities for leisure time activities?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

5) Are you satisfied with your own municipality?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

6) Are you satisfied with the services for the disabled in your home municipality?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

7) Is Finland a good country to live in?
   a. Yes
   b. No, why not? ______________________________
   c. I do not know

8) Are you satisfied with your occupation?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

9) Are you satisfied with your salary?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

10) Are you satisfied with your standard of living?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

11) Are you satisfied with the health service in Finland?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

12) Is the price of food in Finland fair?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

13) In your opinion, are you equal to hearing people?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

14) Are you satisfied with the interpretation service?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know
   d. I don't need one

15) Are there enough programs on TV for hearing-impaired people?
   a. Yes
   b. No, why not? ________________________________
   c. I do not know

16) Are newspapers suitable for hearing-impaired people published in Finland?
  a. Yes
  b. No, why not? ________________________________
  c. I do not know

17) Do politicians look after the interests of hearing-impaired people?
  a. Yes
  b. No, why not? ________________________________
  c. I do not know

18) Are you satisfied with the Finnish electoral system?
  a. Yes
  b. No, why not? ________________________________
  c. I do not know

19) Have you been satisfied with the police in Finland?
  a. Yes
  b. No, why not? ________________________________
  c. I do not know

20) Is Finland a safe country to live in?
  a. Yes
  b. No, why not? ________________________________
  c. I do not know

21) Are you a member in an association in the field of aural disability?
   a. Yes, which? ______________________________
   b. No

22) How can hearing-impaired people influence their own positions in Finland?
   a. by voting
   b. through their own association
   c. in no way
   d. another way, what? ________________________

23) Have you used an interpreter (sign language, MHS or written speech)?
   a. Yes
   b. No

24) If you need a sign language interpreter, do you know how to get one?
   a. Yes
   b. No
   c. I do not need an interpreter

25) Have you taken an adaptation course?
   a. Yes, how many times? ________
   b. No

26) Have you received rehabilitation guidance?
   a. Yes
   b. No

27) Do you belong to a church?
   a. Lutheran
   b. Orthodox
   c. Other, what? ________________
   d. I do not belong to any church

28) Do you go to church?
   a. Yes, sometimes
   b. Yes, often
   c. I do not go to church

29) Are you a member of a politicalparty?
   a. yes
   b. No

30) Do you vote in general elections?
a. Yes
b. No, why not? ______________________________
c. I do not know

31) Do you vote in municipal elections?
a. Yes
b. No, why not? ______________________________
c. I do not know

32) Are you interested in politics?
a. Yes
b. No, why not? __________________________________
c. I do not know

33) Is religion important to you?
a. Yes
b. No, why not? _________________________________
c. I do not know

34) Is there something in this country you would like to change?
a. I do not want to change anything
b. I want a change, what? _____________________________
c. I do not know
____

Values

35) In your opinion, what is a good citizen? Give at least three qualities.

a. ______________________________
b. ______________________________
c. ______________________________

36) In your opinion, are you a good citizen?

a. Yes
b. No, why not? ____________________
c. I do not know

37) What do you think Finland will be like in the year 2000?

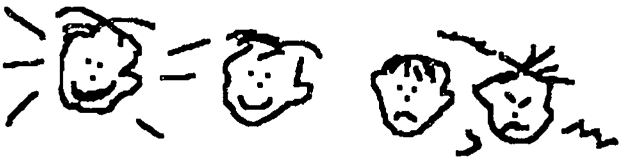
____
____
____

38) Name 1-4 things that are important to you in life.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

Attitudes

Next I will ask you to circle the most descriptive point as shown in the example below. Example: In your opinion, are teachers?



wise	fairly wise	fairly stupid	stupid
x	x	x	x

---

39) How would you describe people working in SERVICE OCCUPATIONS (shopkeepers, bank personnel, bus drivers, doctors)?

a. friendly	x	x	x	x	unfriendly
b. warm-hearted	x	x	x	x	cold
c. hard-working	x	x	x	x	lazy
d. reliable	x	x	x	x	unreliable

40) How would you describe SOCIETY'S DECISION-MAKERS (politicians)?

a. friendly	x	x	x	x	unfriendly
b. warm-hearted	x	x	x	x	cold
c. hard-working	x	x	x	x	lazy
d. reliable	x	x	x	x	unreliable

41) How would you decribe HEARING PEOPLE in general?

a. friendly	x	x	x	x	unfriendly
b. warm-hearted	x	x	x	x	cold
c. hard-working	x	x	x	x	lazy
d. reliable	x	x	x	x	unreliable

42) How would you describe THE DEAF in general?

a. friendly	x	x	x	x	unfriendly
b. warm-hearted	x	x	x	x	cold
c. hard-working	x	x	x	x	lazy
d. reliable	x	x	x	x	unreliable

43) How would you decribe HARD-OF-HEARING PEOPLE in general?

a. friendly	x	x	x	x	unfriendly
b. warm-hearted	x	x	x	x	cold
c. hard-working	x	x	x	x	lazy
d. reliable	x	x	x	x	unreliable

Thank you for your responses!

Instructions for writing a life story after the questionnaires

MY LIFE AS A HEARING-IMPAIRED PERSON IN FINNISH SOCIETY

The last assignment is to write an essay on the above heading. In Your essay You can answer the questions given below and/or otherwise write about Your life as a hearing-impaired person in Finland. Small prizes will be raffled between those who answer the questionnaire. If You want to participate in the raffle, attach Your name and address to the questionnaire.

- Tell where You went to school and how much You have studied.
- Tell where You are currently working and if You like Your work.
- Have You encountered difficulties because of Your aural disability, e.g. at the bank, at the post office, at the store, etc.
- Tell if You vote in elections.
- Tell if You have hobbies.
- Are You equal with normally hearing people?
- Tell if You have used an interpreter.
- Tell what services You have received from society because of Your aural disability.
- Tell whether it is good or bad to live in Finland and why.
- Tell if You are content with Yourself and with Your life?
- Tell about anything else that comes to Your mind about being a hearing-impaired person in our society.

Do not worry about spelling mistakes, matters are more important.

Additional background questions for those who received the above instructions from a Journal

I hope You answer also following questions after writing the story

1. Your Christian name
2. Age
3. Occupation
4. Which school You have attended?
5. What have You studied?
6. Are You deaf or hard-of-hearing?
7. When did You become a hearing-impaired?
8. Have You additional handicaps?

Those who want to participate in the raffle attach Your name and address.

9. Surname
10. Address.

Table 1: Knowledge factors of the deaf

Question	FI	FII	FIII	communality
1. Services for h-i?	.51			.39
2. Child'd last name?	.51			.35
3. Finnsh compr.school			.61	.43
5. H-i study in university?	.61			.39
6. Council for disabled?	.64			.32
7. Responsib. of municipality?	.57			.40
9. What does a parliament do?	.61			.54
11. Rights of finnish citizen?	.62			.54
14. Umemployed money?	.57			.26
15. What is a high living-standard?			.64	.63
16. Elderly receive money, where?			.49	.24
19. Can signing be taught at school?		.68		.46
23. Political right and left, difference?	.60			.30
24. Vote in general elections?	.62			.47
25. Not allowed according to law?	.49			.67
27. Allowed to police?		.94		.68
29. SU and Finland; co-operation?	.51			.28
30. What is EU?		.58		.47
Eigenvalues				
magnitude	7.3	2.2	1.9	
variance prop.	.24	.07	.06	

Table 2 : Satisfaction factors of the deaf

question	FI	FII	communality
Are you satisfied with			
2. school education?		.66	.45
5. own municipality?	.59		.36
6. the handicapped service?	.56		.37
7. Finland good?	.68		.50
8. your occupation?		.56	.43
9. Own salary?		.54	.29
11. Health service?	.69		.48
12. the price of food?		.60	.45
15. tv-programs for h-i?		.61	.40
19. the work of police?	.61		.38
20. Is Finland a safe place?	.50		.25
Eigenvalues:			
magnitude	3.75	2.62	
variance prop.	.19	.13	

Table 3: Activity factors of the deaf

question	FI	FII	comm.
25. Have you been in an adaptation course?	.82		.41
26. Received rehabilitation guidance?	.71		.51
27. Belong to church?		.72	.50
28. Go to church?		.74	.45
29. Member of a party?	.49		.21
30. Vote in gen.elections?		.69	.49
31. Vote in munic.election?		.72	.47
33. Interested in religion?	.57		.36
Eigenvalues			
magnitude	2.3	2.2	
Variance prop	.16	.16	

Table 4: Knowledge factors of the HH (h-i=hearing-impaired)

question	FI	FII	FIII	comm.
1. Services for h-i?			.96	.72
3. Finnish comprehensive school	.54			.50
4. How to get an occupation?			.68	.38
5. H-i in university	.74			.51
6. Duties of the Council for Disabled		.71		.51
7. Responsibilities of the municipality	.64			.40
8. Finland is a rebublic	.72			.45
9. What does a Parliament do?		.62		.35
10. Everymen's duties	.61			.41
13. What is a trade-union?		.80		.56
15. High living-standard?	.50			.22
18. How is tax-money used?		.74		.57
21. Is there vido-material for h-i?		.58		.39
25. Allowed accord. to law	.49			.22
28. Finnish army includes?		.55		.46
29. What does yya-mean?			.91	.59
Eigenvalues				
Magnitude	4.1	2.5	2.1	
Variance Prop.	.15	.09	.08	

Table 5 : Satisfaction factors of the HH (h-i= hearing-impaired)

question Are you satisfied with...	FI	FII	FIII	comm.
1. the services society gives for h-i?		-.64	.51	.66
2. the education you got ?	.52			.33
4. your leisure time activities ?			.65	.40
5. your own municipality?	.61			.40
6. servicies for disabled?	.48	-.53		.45
7. Is Finland a good place to live ?		.47		.29
8. your occupation ?	.52			.28
9. your salary ?	.53			.42
10. your standard of living?	.68			.48
11. the health-service of Finland ?	.47			.21
13. the equality with the hearing?			.47	.31
16. the amount of newspapers for h-i?			.51	.27
18. the electoral system?		.73		.66
19. the working of police?		.63		.44
Eigenvalues				
Magnitude	3.4	2.0	1.8	
Variance Prop.	.17	.10	.09	

Table 6: Activity factors of the HH

question	FI	FII	FIII	comm.
Are you a member in an aural association?		.51		.25
Do you know how to get an interpreter?		.58		.34
Have you taken an adaptation course?		.60		.34
Do you belong to a church?			.72	.52
Do you go to church?			.77	.57
Do you vote in general elections?	.92			.89
Do you vote in municipal elections?	.93			.89
Are you interested in politics?		.72		.57
Is religon important to you?			.84	.67
Do you want to change something in Finland?		.62		.34
Eigenvalues				
Magnitude	2.7	1.8	1.6	
variance prop.	.21	.14	.12	

BACKGROUND INFORMATION ABOUT THE DEAF SUBJECTS WHO ANSWERED TO THE QUESTIONNAIRES

Hearing

Thirty-one subjects (53%) were born deaf and 28 (47%) became deaf under age three. The hearing aid was used always by 7 (12%), sometimes by 14 (25%) and never by 36 (63%) people. The majority, 21 (39%), didn't hear with the hearing aid at all, 12 (22%) people heard only noise, 14 (26%) heard sounds, three could hear some speaking and four said they could converse with the help of the hearing aid. The gravity of the hearing loss ranged in the right ear from 65 to 103 dB and in the left ear from 65 to 110 dB. The mean was 78 dB in the right and 85 dB in the left ear. The data regarding the gravity of the hearing loss are not very reliable because only 12 people answered this question. Additional handicaps were rare; 96% (52) had none.

Family status

The participants' mothers were mainly hearing (54/96%). Only one mother was deaf and one mother was hard-of-hearing. Fathers were overwhelmingly hearing (56/98%); only one was deaf. The social status of the subjects and their parents is shown in table 7 (based on the data of the Statistics Finland, 1983). The fathers were mainly in the upper or middle classes, mothers were equally represented in all three classes. The subjects themselves were mainly in the middle class in this scale (table 7).

Table 7: The socio-economic status of the deaf subjects and their parents

class	father N/%	mother N/%	subject N/%
1-3	21/41	16/32	2/4
4-6	28/55	19/38	36/69
7-9	2/ 4	15/30	14/27
N	51	50	52

(1=employer, 2= businessman/entrepreneur, 3= official, 4= lower official, 5= employee, 6= retired, 7= student, 9= others, e.g. unemployed)

Most of the participants were married (28/47%), 22 (37%) were single, eight (14%) were divorced and one was a widow.The majority had a deaf spouse (22/67%), eight (24%) had a hearing spouse and three a hard-of-hearing spouse. An average family had two hearing children. Only one family had hard-of-hearing children and three had deaf children.

School-time and other studies

Attendance at a comprehensive school for deaf was the most usual (44/83%). Two subjects had been in an ordinary comprehensive school, one was graduated from deaf school and one was graduated from a school for the hearing. Most people had liked school (33/59%), seven had not and sixteen (28%) didn't remember.
Many people had been in a vocational school (25/48%) and ten (21%) had been in a vocational course. Only one had studied in high school. The majority (29/55%) were interested in studying new things, and 18 (33%) were studying something at the time of the research.

Employment

Many (19/33%) were working and fifteen (26%) were retired. Fourteen (24%) people were studying, five were unemployed and two were at home. Unemployment was not common, 22 (51%) had never been unemployed. Seventeen (40%) had been unemployed for under a year. For eight the employment had been found with the help of another person, 22 (58%) had found it themselves. The majority had no hearing-impaired colleagues at their work place (21/53%) but many had (19/47%).

Living and leisure time

Most of the participants (32/58%) lived in their own house, twelve (22%) lived in a rented flat, five in a house for handicapped people and four with relatives.
People had a lot of hobbies, the average number was 2,9 hobbies (SD 1.8). The most commonly mentioned hobby involved some kind of physical exercise, cycling, swimming, running, etc., (over 50 mentions). Next was reading (12) and handicraft (8 mentions). Friends were mainly hearing-impaired (25/43%), but 19 (33%) had both hearing and hearing-impaired persons as friends.

Newspapers were popular, the average amount being 1,6 (SD=.99). Magazines were even more popular, the average amount being 2,2 (SD=1.3). In their leisure time people most often visited friends (37) or had some exercise (34). During the summer holidays people travelled in Finland (23/45%) or abroad (12/23%) or stayed at home (11/21%). At Christmastime many were at home (28/57%), and 17/35% also spent their weekends at home.

Communication

The majority reported they could sign well (46/79%), nine that they could sign a little and three not at all. Workmates were not able to sign (26/57%). Communication in different situations was interesting (table 8).

Table 8: Communication of the deaf in different situations

	at work N/%	at home as a child N/%	at home now N/%	personal and business matters N/%
1. speak	2/ 4	9/16	7/13	5/ 9
2. write	3/ 6	1/ 2	0	13/22
3. sign	1/ 2	11/20	14/25	0
4. lip-read+speech	6/13	6/11	6/11	7/12
5. 1+2	5/10	1/ 2	1/ 2	14/25
6. 2+3	3/ 7	1/ 2	1/ 2	1/ 2
7. 2+3+4	5/10	1/ 2	0	1/ 2
8. other combinations	24/48	25/45	27/48	15/26
N/%	48/100	56/100	56/100	57/100

In table 8 the eighth category could be called total communication. It was used most often. Signing was most common at home. Oral communication methods were most common at work and in banks or shops.

More difficulties were encountered when communicating at work than at home. Approximately twice as many encountered communication problems as children at home than as adults (table 9).

Table 9 : Communication problems of the deaf

	Problems in communication at home as a child N/%	at home now N/%	at work N/%
never	12/22	32/59	13/29
often	10/19	5/ 9	5/11
sometimes	32/59	17/32	27/60
N/%	54/100	54/100	45/100

The MH system was unknown to 39 (85%) people.

When evaluating their own speaking, reading and writing competence people were modest, (table 10).

Table 10: Speaking, reading and writing competence of the deaf

	own speech N/%	own reading N/%	own writing N/%
good	8/14	21/37	19/33
moderate	36/64	30/53	31/55
bad	12/22	6/10	7/12
N/%	56/100	57/100	57/100

Own speech competence (see table 10) was evaluated lowest and reading highest.

Life situation

Life is never dull in the opinion of ten (19%) people, seldom dull for 33 (64%), quite often dull for seven and almost always dull for two. The majority (35/63%) were satisfied with themselves, four people were not and seventeen (30%) couldn't tell. Reasons for dissatisfaction were missing. The majority (40/80%) wanted to be as they were and ten (20%) wanted to be different, three people wanted to be hearing and three wanted to be braver. General mentions were wishes to be a little better and to be able to communicate better.

The participants had the opportunity to add things they considered important. Twenty-one people added something concerning the services for deaf, e.g. better interpreter-service, more signing teachers, more equality with the hearing.

BACKGROUND INFORMATION ABOUT THE HH SUBJECTS WHO ANSWERED TO THE QUESTIONNAIRES

Hearing

The hearing-aid was used always by 53 persons (78%), 14 (21%) used it sometimes and one never. Conversation was possible with the hearing-aid for 63 (95%) people, three people could hear what was said, but couldn't converse. The exact gravity of the hearing loss was not often recorded, only 28 person answered this question. The average hearing loss in the right ear was 62 dB and the standard deviation 32. In the left ear the average hearing loss was 61 dB and SD 29. They all considered themselves as hard-of-hearing, but 11 (17 %) persons had some other handicapping condition. Most usual were problems with sight, diabetes and the Meniér's Disease.

Family status

The majority of the hard-of-hearing persons' parents were hearing (90%), 9% had hard-of-hearing parents. The social status of the parents and the subjects (according to the Statistics Finland, 1983) is given in table 11.

Table 11: The socio-economic status of HH subjects and their parents

classes	father N/%	mother N/%	subject N/%
1-3	17/30	14/26	6/9
4-6	35/65	23/42	56/85
7-9	3/5	17/32	4/6
N	55/100	54/100	66/100

(1=employer, 2= businessman/entrepreneur, 3= official, 4= lower official, 5= employee, 6= retired, 7= student, 9= others, e.g. unemployed)

Fathers were in the middle (65%) or upper (30 %) classes, mothers were in the middle (42 %) or lower (32%) classes. The subjects were in the middle (85%) classes. Most of them (33/48%) were married, 15/22% were singles, 4 people lived together, two were divorced and fourteen (21%) were widows. The subjects were rather old, accounting perhaps for the large numbers of widows. Most had a hearing spouse (34/92%), three a hard-of-hearing one. An average family had 2.7 children, (SD 1.5), all hearing.

School-time and other studies

The comprehensive school was the most frequently mentioned school, 48 (79%) had attended it; two persons had been in a school for hearing-impaired and nine people had been graduated from ordinary school. Most subjects had liked school 43 (69%), 12 (19%) didn't like it and seven were not able to remember.

Many had been in vocational training for a shorter (under a year 22/42%) or longer (a year or more 30/64%) period. Only six persons had attended a university. Nineteen (30%) persons were now studying something, mainly as a hobby.

Employment

The majority were retired (41/61%), only 19 (28%) were working, two were unemployed and four people were studying.

Living and leisure time

Most (48/74%) lived in a house of their own, eight people lived in a rented flat, five with their relations and four in a house for handicapped people. In leisure time physical activities were most popular, then visiting friends and thirdly handicrafts. Only eight persons said they visit restaurants. On summer holidays people went to the countryside (15/27%) or travelled around (20/36%). At Christmas they stayed at home (35/67%) or visited relatives (7/14%), and on a usual weekend they stayed at home (28/49%) or did something concerning their hobbies (22/39%). In a usual day they did work around the house (cleaning, cooking etc.) from one to three hours.

Everybody had at least one hobby. The average amount of hobbies was 2.6 (SD 1.5). The most common hobbies were different kind of physical activities, sports. Popular were also handicraft, reading and different clubs organized by the association of hard-of-hearing. Twenty-nine (44%) said they had both hearing and hard-of-hearing friends, but twenty-seven (41%) reported they have mainly hearing friends.

Newspapers were popular, the average number being 1.8 papers in each home (SD 1.1). Magazines were even more popular, 2.2 magazines per home, (SD 1.7).

Communication

Most people communicated by speech. Only two people considered they had good ability in sign language, 13 (19%) could sign a little and 53 (78%) couldn't sign at all. Speech and speech with lip-reading were the most usual ways to communicate. Almost 80% used only speech; speech with lip-reading was used by 11/14%.

Table 12: Communication methods of the HH in different situations

	N/% at work	N/% in childhood	N/% now at home	N/% shop, bank,
speech	36/72	52/82.5	52/80	51/77
writing	0	0	0	0
signing	0	0	0	0
lip-reading+ speech	14/20	11/17.5	12/18	14/21
other ?	0	0	1/1.5	1/1.5
N	50	63	65	66

People who chose the alternative "other, what?" wrote there "gestures". Lip-reading with speech was used in official situations and at work; at home plain speech was enough. More than half of the subjects felt they had no communication problems. Communication at work was a little more difficult than in childhood at home (table 13).

Table 13: Communication problems of the HH

	N/% in childhood	N/% now at home	N/% at work
no problems	46/72	44/69	26/58
sometimes	14/22	16/25	17/38
often	4/6	4/6	2/4
N	64	64	45

Only five persons were able to use the mouth-hand-system (MHS), the majority 61 (92%) didn't know it. People were very modest when they had to evaluate their own communication skills. Reading competence was evaluated as being better than writing or speaking competence (table 14).

Table 14: Communication skills of the HH

	N/% good	N/% moderate	N/% weak	N
speech	35/53	30/46	1/2	66
reading	48/72	19/28	0	67
writing	34/52	30/46	2/3	66

Life situation

Life is never dull in the opinion of 21 (31%), seldom dull for 38 (56%) and quite often dull for nine people. The majority, 42 (63%), were satisfied with themselves, 15 (22%) couldn't tell their opinion and 10 (15%) were not satisfied with themselves. Reasons for dissatisfaction were various illnesses and anxiety, and three people mentioned that being hard-of-hearing is a reason for anxiety. Some people felt they were lonely and had no chance to date because they were hard-of-hearing.

The majority, 47 (72%) wanted to be as they were, 18 (28%) wanted to be different. Three wanted to hear better and others mentioned such usual terms as "more charming", "more cheerful" or "more active in social life".

Subjects had the possibility to add things they considered important. Most frequently added items were the wish for good health and that the hearing wouldn't get worse. Many people wanted free batteries for the hearing aid.

APPENDIX 11

Goals for social studies in the upper grade

(Peruskoulun kuulovammaisten opetussuunnitelman perusteet, 1987)

Seventh grade

Family and Society	family as a community,other communities/society, support provided by society for families with a hearing-impaired (h-i) member
Education	compulsory education for h-i, vocational education for h-i, -advanced studies for h-i
Municipal democracy	municipality and its'members, administration, responsibilities and services of a municipal, Councils for disabled
Republic of Finland	three state authorities: Parlament, President, Government; -rights and duties of a citizen
Parliament	election and main functions, lines of working
President of the republic	election, positions and functions

Eight grade

Labour market	employment contract, trade unions, labour welfare, unemployment, trade union activity of the h-i, employment of the h-i
Quality of life	standard of living, technical development, supportive measures in case of illness, disability and old age; recreation activities for h-i
Production	running business, means of production, commodity /prize
Consumption and sparing	What is money?, considerate consumer, sparing, economic fluctuation (inflation); monetary institutions: Bank of Finland
Finnish trade	import and export, commercial co-operation, balance of trade devaluation- revaluation

Ninth grade

H-i and society	prevalence and causes of h-i ,status of sign language support services for h-i,interpretation service, how to use an interpreter, text-telephone, tecnical device, local associations
Public economy	taxation, state revenue and expenditure
Media	press, radio and TV, programs for h-i, video, special material for h-i
Political parties in Finland	political activity in parties, political parties
Election system	right to vote, direct and indirect ballot
State Council and administration	forming the government and its functions,central administration and counties, authonomy of Ahvenanmaa
Law and order	judicial system, the Police, the young and the law
Security policy	foreign policy, national defence, civil defence

STUDY I

DEAF FINNISH ADULTS' VIEWS OF THEIR SOCIETY:

KNOWLEDGE, SATISFACTION, VALUES AND ATTITUDES

Deaf Finnish adults were studied as a language minority to assess their knowledge of Finnish society. This study addresses their level of satisfaction with and participation in Finnish society. Information was obtained from 63 individuals. The complete sample included 32 men and 31 women. The age range was from 17 to 78, with a mean age of 41 years. Females tended to score higher than males on measures of knowledge with younger respondents scoring higher than older respondents. Men tended to show higher levels of overall satisfaction, with no age differences on this construct. Satisfaction was expressed with the Finnish Republic, services for the deaf, law and order and wages earned. Dissatisfaction was expressed with the cost of living, education and the lack of equality with the hearing.

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It is estimated that there are about 8,000 deaf people in Finland (population about 5 million). Of these 5,000 use sign language. The Finnish National Association of the Deaf has over 3,000 members. Most deaf children in Finland go to special schools for the deaf. Usually, only hard of hearing students (those who communicate by speech and lipreading) are integrated into ordinary schools. After compulsory school the deaf often attend vocational school. Sign language is not widely known outside the deaf community. The limited ability of the deaf to communicate orally creates a language barrier between them and the hearing society. Sign language has been a subject of instruction in the Finnish curriculum for the deaf since 1987.

Deafness is not only a medical, but a socio-linguistic handicap (e.g. Walsh & Eldredge, 1991, Higgins 1980, Doggett 1989, Sam & Wright, 1988). In 1992 the Finnish National Association of the Deaf conducted an occupational survey of the deaf. It showed that industrial work was the most common form of employment. The deaf have little contact with their co-workers. They seldom have a university degree (in Norway 5%, in Finland fewer than 10 people).

Today "deaf consciousness" is increasing among the deaf. The deaf now have self-organized clubs. Captioned television, telecommunications devices for the deaf (TDDs) and interpretation services have given deaf people more independence. Their own community is central, and the deaf association and the deaf church play an important role in Finland and in other countries (Padden, 1980, Barham, 1989).

Purpose of the Study

We all have some kind of model of reality, our own world view. Our view of society is part of our world view. Elements of our view of society are defined as cognitive, operational, social, emotive and cultural (Helve 1987, Niiniluoto 1984). The world view begins to form in early childhood and the view of society perhaps a little later. The view of society is a mental representation of Finnish society. According to Moscovici (1987) such representations have a dual function: first to create an order which makes orientation possible in a material and social environment, and secondly to provide the ability to control this environment.

The experiences of individuals influence their views while social class, religious setting and people's position in society influence the view of society. People are often unconscious of their own views because these views are unstructured (e.g. Bulmer 1975, Willener 1975).

The main goals of this study were to determine the deaf's subjective views and ways of coping in Finnish society. The following elements of the deaf's view of Finnish society were studied: the *cognitive* element (what do the deaf know about Finnish society?), the *operational* element (how active are the deaf in Finnish Society?), the *social* element (attitudes towards different kinds of people) and the *emotive* element (including the deaf's levels of satisfaction with Finnish society). The *cultural* element is represented here in background information collected about the survey participants.

Methods

The deaf's views of Finnish society were studied in five questionnaires as follows: knowledge of society (30 questions), satisfaction with society (20 questions), participation in society (14 questions), values (4 questions), attitudes (20 questions). Background information was elicited on age, hearing levels, other handicapping conditions, education, social background, family status, leisure time activity, communication methods and skills and self concept.

Knowledge of Finnish society was defined on the basis of the compulsory curriculum for the deaf in Finland. The goals of social studies programming for the last year of compulsory school were compressed into the following areas: family and society (1 questions), education (4 questions), municipal democracy (2 questions), the Finnish Republic (5 questions), working life (2 questions), quality of life (2 questions), financial matters (2 questions), the deaf and Finnish society (2 questions), mass media (2 questions), political parties (2 questions), election system (1 question), law and order (2 questions), security policy (3 questions).

One to three multiple-choice questions were formulated for these 13 main issues. For example: "Who can vote in general elections? a) "everyone living in Finland," b) "every Finnish citizen 18 years of age or over," c) "every Finnish citizen 20 years of age or over", d) "I do not know." The maximum score was 91.

The *Satisfaction* questionnaire requested one of three responses to questions such as: "Are you satisfied with the Finnish election system? a) yes, b) no, and c) I do not know." The maximum score was 60.

The *Participation* questionnaire had fourteen questions about activity in society (e.g. "Do you go to church?") The same a) "yes," b) "no" and c) "I do not know" format was used. The maximum score was 34.

Values were studied by four questions. People were asked to write freely about the following topics: "What is a good citizen like?" "What will Finland be like in the year 2000?" and "List 1-4 personally important things in your life." Finally, one multiple choice question was presented: "Are you a good citizen?"

The *Attitude* questionnaire had twenty multiple choice questions. The subjects had to evaluate "the hearing," "the deaf," "the hard of hearing," "service workers" and "officials" by using four adjectives divided into a four part scale: friendly, quite friendly, quite unfriendly or unfriendly. A negative choice gave no points, and the most positive alternative gave three. The maximum score was 60.

Sign Language

The questionnaires were pretested in two schools for the deaf. A videotape was made in which the questions regarding knowledge, satisfaction, participation, values and attitude were presented in Finnish sign language by a hearing interpreter. The final signed versions of the questionnaires were a result of testing in classes at a school for the deaf and of discussions between the interpreter and the author, who is a sign language interpreter. The background questions were not signed because they were considered easy to understand.

Subjects

The Finnish National Association of the Deaf provided a computer-based registry of deaf people 16 years of age or older. Of 3,231 individuals 1,597 were women and 1,634 were men. A random sample of 100 persons was taken from this registry. This sample was randomly divided into two groups of 50 persons. Written questionnaires were mailed to one half and the other half received identical questionnaires accompanied by a videotape with signed questions.

A postage prepaid envelope for responses was included. The instruction letter promised a lottery with small prizes for the participants. Rehabilitation secretaries for the deaf were informed of the research beforehand because of the central role they play in the flow of information to the deaf. The research was also presented in the Journal of the Finnish National Association of the Deaf.

A total of 65 questionnaires were returned. Nineteen were excluded because the respondents were hard

Table 1
Age was provided by 59 of the 63participants They were divided into four age categories as shown

Group	Date of Birth	Number
1	1920-39	20
2	1940-49	8
3	1950-59	9
4	1960-69	22

of hearing or postlingually deaf The remaining 46 accepted questionnaires were from congenitally or prelingually deaf respondents The response rate varied in the two groups In the video group 27 (54%) responded and in the group receiving only the questionnaires 19 (38%) responded.

An additional sample of 17 deaf young adults was taken from the students of the Helsinki Folk High School for the Deaf All agreed to participate They were interviewed through sign language

Background Information About the Final Sample

There were 32 men and 31 women in the final sample, ranging in age from 17 to 78 The mean age was 41 years Four individuals did not provide their age All subjects were congenitally (53%) or prelingually (47%) deaf The average respondent in the final sample was 41 years old, married with two children and employed Respondent's average hearing loss was over 80 dB and hearing aids were not used Respondent's average socio-economic level was lower than that of their parents The average respondent attended a school for the deaf and then vocational school, is satisfied with current employment and has not been unemployed Most live in their own apartment and have mainly deaf friends Sign language is the primary communication method at home At work and in the general community writing, speech and speechreading are used Most communication difficulties are encountered at work Reading and writing competence is self reported as moderate and speech competence is self-reported as moderate or bad Most self-reported satisfaction with themselves The age and sex distributions of the non-responding subjects were similar to those in the final sample

Data Analysis

Because of the small numbers, the information is presented descriptively at Table 1

Results

Societal Knowledge

A total of 63 people filled out at least part of this questionnaire Of a total of 91 points, the scores ranged from 12 to 88 The median score was 66, the lower quartile 56 and the upper quartile 74

The personally interviewed group received the highest scores (*M*=70, *SD*=17), the video group was second (*M*=63, *SD*=17) and the paper group received the lowest scores (*M*=57, *SD*=20) Correct responses by 80% or more of the respondents were given on questionnaires regarding quality of life, education, the Finnish Republic, personal life, working life, the election system, mass media and security policy

Fewer than 35% of respondents were correct on items regarding municipal democracy, political parties, deaf society, financial matters and working life in general

Sex, age and communication competence were the most effective classifiers of knowledge questions One way variance analysis (ANOVA) showed that women (*N*=30) performed better than men (*N*=32) in knowledge questions Their mean score was 70 (Max 91), *SD*=10, and the men's mean was 57, *SD*=19 Age was also significant the two youngest groups performed better

Satisfaction

This questionnaire was filled out by 63 people The maximum score was sixty. The median score was 45, the lower quartile was 41 and the upper 50, the points ranged from 30-57

More than 60% of the subjects were satisfied with security policy, the Finnish Republic, municipal democracy services for the deaf, education and the mass media The number of "I don't know" answers was quite large (from 6% to 36%, except for one at 48%) The largest number of such answers appeared on items concerning politics, study possibilities, equality and the election system Men had higher mean satisfaction scores than women (47 to 43), but it is unclear what the functional implications might be

ANOVA showed that those who were working or retired were more satisfied than others (e g at home, studying), ($p<.05$) Also, respondents who had never been unemployed got higher satisfaction scores (*M*=46) than those who had been unemployed from one to six months (*M*=41)

Participation

How much do deaf people participate in different activities in society? The maximum score here was 34 (*N*=62) The total scores achieved ranged from 11 to 31, the median was 26, *SD*=2 3, lower quartile 24 and upper quartile 28

Seventy percent of the sample indicated that they were actively involved in the following areas associations for the deaf, access to and use of an interpreter, church attendance and membership in a congregation and influencing their own affairs

Very little participation (under 35%) was shown in the following areas rehabilitation guidance, adaptation course attendance, membership in a political party interest in politics and desire to change something. The number of "I don't know" answers was the largest in response to these questions: "What would you like to change in this country?" and "Does politics interest you?"

Values

The majority (79%) considered themselves good citizens. Good citizenship was most frequently defined in terms of honesty and then industriousness. Good citizens are also friendly, reliable, equal, and they are not heavy drinkers.

Respondents' visions of the future of Finnish society were very ambiguous. Many people wrote that we can live in peace and that European unification is a good thing, because Finland will become more international. The economic situation is improving, as is the development of advanced technology. On the other hand they cited problems with increased pollution and unemployment, too little leisure time, and too few health care personnel.

The most important things in life were listed as home and family, followed by health and job. Also important were friends, money, one's own apartment, education, religion and peace.

Discussion

Questioning congenitally or prelingually deaf people in written Finnish is not the most effective approach. Meeting the participants personally or using signed video recordings are more effective ways of conducting such a survey as this.

The participants, especially young women, had acquired a very adequate basic knowledge of society. Deaf people lived and moved in a microsystem (Bronfenbrenner 1979, 1991) which formed out of the activities of deaf associations and the deaf church. They preferred to associate with their deaf peers (Barham 1989), and were quite satisfied in this microsystem.

Living and moving in the mesosystem was easy when, e.g., they had signing coworkers or their children were in schools for the deaf. Older people were most satisfied, especially men. This could be due to older people's experience of wartime shortages now followed by relative well-being. They do not need to study any more and are accustomed to managing their own affairs, often without an interpreter. The younger ones see that education is important today and that possibilities for deaf people are limited.

The Finnish deaf found the "larger society" more difficult to navigate because sign language is seldom a usable communication method. In particular, difficult elements were identified as trade unions, municipal systems, political settings, etc. Still, the deaf wanted to move about in hearing Finnish society and some of them in fact did. Those who knew the most about Finnish society, signed well, had good reading ability and access to TDDs were better able to move between in deaf and hearing Finnish society.

The deaf also wanted more captioned television programs, interpreter services, educational interpreters, hearing people who sign, tolerance from the hearing, deafness education for the hearing and equality with the hearing. These constitute the missing links between the exosystem and mesosystem of the deaf which make integration and development possible.

The status of sign language in Finland began to improve in 1970. The law of interpretation services in Finland is coming into force in 1994. It guarantees 120 hours per year of interpretation and study interpretation as needed. Until 1994, municipalities were independently able to decide how many interpretation hours they would finance (Finland's National Board of Social Welfare, 1987). The youngest participants in this study attended school from 1966-1974. As a result, they have been signing at school and many have been signing at home. The oldest participants in this study attended school from 1919-1933 when sign language was uncommon and oral methods of instruction were used.

The view of society in this sample was deaf-centered, but the suggestions for improvements in society show that the deaf wanted to achieve greater integration into society, that is, to enjoy the same opportunities as the hearing.

The ultimate question is whether an ideal citizen is satisfied, active, well-informed and optimistic.

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This research was supported by the Finnish National Association for the Deaf and by the Finnish Federation of the Hard of Hearing.

STUDY II

Scand J Soc Welfare 1994: 3: 31-38
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SOCIAL
WELFARE
ISSN 0907-2055

The views of hearing-impaired Finns on society: knowledge, satisfaction, activity, values and attitudes

Takala M. The views of hearing-impaired Finns on society: knowledge, satisfaction, activity, values and attitudes.
Scand J Soc Welfare 1994: 3: 31-38. © Munksgaard, 1994.

The main goal of this study was to determine how hard-of-hearing (defined as seriously impaired hearing) adults view society. Hard-of-hearing people were asked what they know about Finnish society and how active and satisfied they are as members of society. Sixty-eight adult hard-of-hearing volunteers participated by answering questionnaires mailed to them. Elements of the study were taken from the curriculum of social studies for the last year of compulsory school. The subjects had good general knowledge. They were fairly satisfied with Finnish society, except for its services for hard-of-hearing people. They were active in various associations and in the life of the religious community, but not in politics. They reserved their most positive ratings for hearing-impaired people. Although their hearing loss was irritating, they had not developed their own distinct culture: they wanted to be part of the broader Finnish society, with the help of some extra services (such as the induction loop system).

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Key words: hearing impairment, view of society, knowledge, satisfaction; activity

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Accepted for publication October 27, 1993

There are about 300,000 people with impaired hearing in Finland; about 22,000 are considered as hard-of-hearing, defined here as having serious hearing impairment without being deaf. The Finnish Federation of the Hard-of-Hearing had 16,443 members in 1991. Most of these people go to a normal school and lead a "normal" life. They have difficulty in social situations and in noisy places. The amount of difficulty is related to the seriousness of the hearing impairment. Two criteria are applied to distinguish hard-of-hearing people from deaf people: the hearing loss is about 30-80 dB, and the communication method is mainly oral.

In a study conducted by the Association for Deaf and Hard-of-Hearing in Tel Aviv (Israel), people were asked to list things they considered most difficult for themselves because of their hearing loss. The 3 most often mentioned difficulties were: 1) communication with hearing people, 2) using the telephone and 3) listening to radio and television (Weisel & Reichstein 1990).

Hearing ability can decline very slowly, so that it is not noticed. A person can wonder why other people speak so unclearly. Hearing-impaired people face many misunderstandings, their self-concept may suffer and they are easily isolated. Often they do not want to isolate themselves, but the handicap causes it (Levine, 1981). Orlans (1988) studied hearing loss adjustment in the members of the American Self Help for Hard-of-Hearing Association (SHHH), which had 1500 members in 1988. He found that 7% were not at all adjusted, 26% were poorly adjusted, 36% moderately, 23% well and 8% very well adjusted. Divorced women experienced the greatest difficulty in adjusting to hearing loss. People tried to hide their hearing loss; they were afraid they would drop out of conversations or say something stupid; also the volume of their own voice bothered them. Many people were angry about their handicap; it was not their fault, but it caused them a lot of trouble. Many said that their best friend is their hearing aid. Members of the SHHH considered the association newsletter very important.

View of society

We have a model of reality; a world view inside ourselves, unconsciously or consciously. This world view includes the view of society. It is the mental representation of the society. There are 3 important points concerning an individual's view of society.

1) The view of society is a complex structure of consciousness that has some of the same elements as the world view. It helps individuals process the knowledge they have about society.
2) It helps the individual to act in society.
3) The view of society has a cultural element in it.

It is a bit different for every generation, but some elements are common, such as manners.

The view of society is a part of the world view.

Three important points about formulating the view of society are: "knowledge about society", "acting in society" and "satisfaction/attitudes/values" (Niiniluoto, 1984; Nuutinen, 1983; Willener, 1975).

The main goals of this study were to determine how the hard-of-hearing see Finnish society. This was done by asking: 1) what does a hard-of-hearing person know about society? 2) Is he or she satisfied? 3) Is he or she active? 4) What are his or her attitudes and values?

Methods

Five questionnaires, designed to measure different aspects of people's view of society, were structured as following: 1) knowledge of society (30 questions), 2) satisfaction with society (20 questions), 3) activity in society (14 questions), 4) attitudes (20 questions) and 5) values (4 questions). Background information was elicited with 64 questions on age, hearing, other handicaps than the hearing disorder, education, social background, family status, leisure activity, communication methods and skills and self-concept.

Knowledge of Finnish society was defined on the basis of the curriculum for hearing-impaired children at school (*The curriculum of compulsory school for the hearing-impaired*, 1987). The goals of social studies for the last year of compulsory school were compressed into 13 areas: 1) family and society (1 question), 2) education (4 questions), 3) municipal democracy (2 questions), 4) the Finnish republic (5 questions), 5) working life (2 questions), 6) the quality of life (2 questions), 7) financial matters (2 questions), 8) hearing-impaired people and society (2 questions), 9) mass media (2 questions), 10) political parties (2 questions), 11) the electoral system (1 question), 12) law and order (2 questions) and 13) security policy (3 questions).

Thirty multiple-choice questions were formulated from these 13 main issues, 1-3 questions per issue (for example, "Who can vote in general elections? a) everyone living in Finland, b) every Finnish citizen 18 years of age or over, c) every Finnish citizen 20 years of age or over, d) I do not know.") The maximum score was 91.

The satisfaction questionnaire, with 20 questions, requested a satisfaction response according to 3 alternatives: for example, "Are you satisfied with the Finnish election system? a) yes, b) no and c) I do not know." The maximum score was 60.

The activity questionnaire had 14 questions about activity in society. (for example, "Do you go to church?") They could answer "yes" as an active choice or "no" as a passive choice. In some questions also a neutral answer "I do not know" was possible. The maximum score was 34.

Values were studied by 4 questions. People were asked to write freely about the following topics: 1) "What is a good citizen like?", 2) "What will Finland be like in the year 2000?" and 3) "List 1–4 things that you find important in life." Finally, one multiple-choice question 4) "Are you a good citizen?" was presented.

The attitude questionnaire had 20 multiple-choice questions. The subjects had to evaluate "people with normal hearing", "deaf people", "hard-of-hearing people", "service workers" and "officials" by using 4 adjectives divided into a 4-part scale: "friendly, quite friendly, quite unfriendly or unfriendly". A negative choice gave no points, and the most positive alternative gave 3. The maximum score was 60.

Pre-test

The questionnaires were pretested in 2 schools for hearing-impaired pupils. Seven deaf and 6 hard-of-hearing pupils from the upper classes participated in the pre-test. As a result of the pretest, some of the long, difficult words were removed and the text was simplified. Deaf people were included because these same questionnaires were used also with deaf people in another study (Takala, unpublished).

Subjects

Sixty-eight hard-of-hearing Finnish citizens volunteered to take part in this study. They were identified and contacted for the study in 3 different ways.

1) The journal of the Finnish Federation of the Hard-of-Hearing (*Kuuloviesti*), distributed to all of its members, carried a description of the research project, and hard-of-hearing people were requested to send their address to the researcher if they wanted to participate in the study. 2) There are over 80 local associations for the hard-of-hearing in Finland (Ojala & Pöntys, 1991). The researcher chose the addresses of the 10 biggest associations, wrote to their secretaries and asked them to describe the research project in their weekly meetings, collect volunteers' addresses and send them to the researcher. 3) The researcher also met 8 people personally in a course for hard-of-hearing individuals, where it was possible to discuss the project with them in detail and get extra information.

Background information about hard-of-hearing people

Of the 68 participants in this research, 45 (66%) were women and 23 (34%) were men. The average age of the participants was 57 years (SD 18), and 41 (61%)

were retired. The hearing loss was about 60 dB, and this loss did not bother them very much. Fourteen people reported that they had impaired hearing since birth, 15 people since they were 3 to 20 year old, 13 people since 20–55 years and 4 people after 55 years; 22 people did not mention the age of onset. People communicated by speech, with the help of a hearing aid, which they used faithfully.

The socioeconomic situation of the average person was a bit lower than that of his or her parents. Educated hearing-impaired people often earn a little less than their workmates with normal hearing (Welsh et al., 1988). They had 2 children with normal hearing. They attended a normal elementary school, which was a positive experience. After school they attended a vocational school.

They were interested in all new things but were not studying anything just now.

They did not know sign language or the mouth-hand system (a system in which consonants are shown using different finger positions (Holm-Dalas, 1984)). When communicating with strangers, they used both speech and lip-reading. They lived in their own apartment, and subscribed to 2 newspapers and magazines. They had 2 hobbies, usually some physical activity such as jogging, and handicraft and reading. Their friends were both hearing and hearing-impaired but not deaf.

Their life was seldom dull and they were quite satisfied with themselves; but the impaired hearing was irritating.

Data analysis

The data were processed with *t*-test, factor analysis, regression and analysis of variance (ANOVA).

Free answers (value questions) were treated qualitatively, taking the most common themes into account. Background data yielded information regarding age, sex, reading, writing and speech ability, the frequency of using the hearing aid and former studies as main classifiers for the questions.

Reliability

The internal consistency of the questionnaires was computed by using Cronbach's alpha (Guilford & Fruchter, 1987). The reliability estimates are satisfactory (Table 1).

Table 1. The reliability of the questionnaires

Questionnaires	Split-half correlation	Coefficient alpha (all items)
Knowledge	0.54	0.66
Satisfaction	0.67	0.75
Activity	0.44	0.50
Attitude	0.53	0 64

Results

The distribution of total points for the 3 parallel sections (knowledge, satisfaction and activity) and attitude section, which were completed by 65–68 people, are shown in Fig. 1–4.

The parallel sections were subjected to factor analysis (oblique solution-varimax), and they formed 3 factors. Most of the questions from the knowledge section loaded well in factor 1, factor 2 got satisfaction questions and factor 3 activity questions. When factor scores from this analysis were used with back-

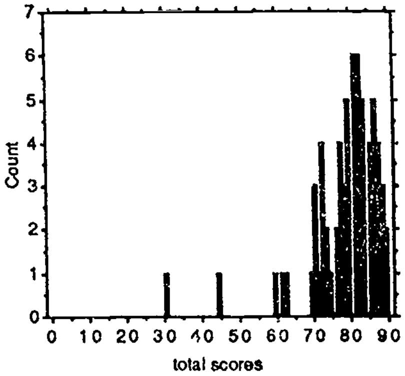

Fig. 1. The distribution of knowledge scores (*n*=66, max. 91 points).

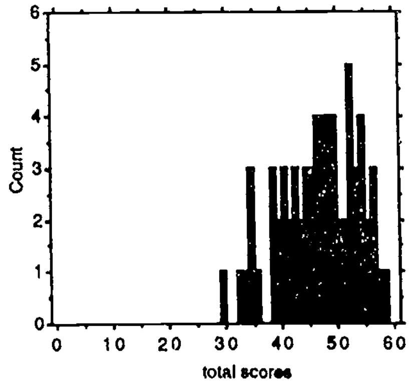

Fig. 2. The distribution of satisfaction scores (*n*=68, max. 60 points).

ground information in stepwise regression, very small predictors were found. The most significant were: for the knowledge section, reading ability explained 12%, and for the activity section, age explained 17%, the second oldest group being most active.

Knowledge

The knowledge section was completed by 66 hard-of-hearing people, 23 men and 43 women. Of a total of 91 points, the scores ranged from 59 to 89 (except 2 people with scores of 30 and 44). The median of total points was 81, the upper quartile 85, and the lower quartile 74.

On the basis of a similar study of the view of society of deaf people (Takala, unpublished), the points were divided into 3 categories, with the third category being the best (1=0-29, 2=30-59 and 3=60-91 points). No one was in the low category in this study (Fig. 5).

The items that had been mastered best (the rate of correct answers was over 95%) were the following: Finnish republic, financial matters (pensions, food prices), quality of life, education, political parties and security policy. These are matters in which most Finns have a personal interest.

The most difficult items were the following (correct answers from 19% to 56%): working life, hearing-impaired people and society, municipal democracy, and financial matters (use of tax revenues). These concern more institutional knowledge, and the participants in the study were not familiar with them.

The *t*-test showed that men performed a little better than women. The mean score of the men was 81 (SD 6) versus 77 (SD 11) for women ($P=0.08$). When using standard scores, the result was almost the same: $P=0.07$.

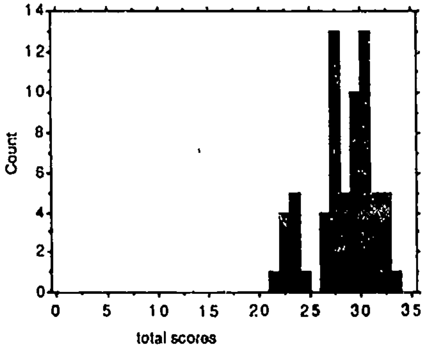

Fig. 3. The distribution of activity scores ($n=68$, max. 34 points).

The participants were divided into 4 groups by age, and 1-way ANOVA (1-factor ANOVA) gave significant differences ($P<0.05$) between the oldest (69–87 years) and the second oldest (51–68 years) groups. The oldest performed most poorly, with a mean score of 71, SD 14 ($n=16$); and the second oldest, both men and women, performed best, the mean score being 82, SD 5 ($n=25$). The two youngest groups performed rather equally.

Men and women were compared separately according to age group; men were rather homogeneous, but the second oldest women performed significantly better than others, mean 81, SD 5 ($n=17$) ($P<0.05$); the oldest women performed most poorly, mean 69, SD 17 ($n=11$).

ANOVA showed that good communication skills led to good knowledge, and the best knowledge scores were achieved by those who thought that they speak ($P<0.05$), read ($P<0.005$) and write ($P<0.05$) well.

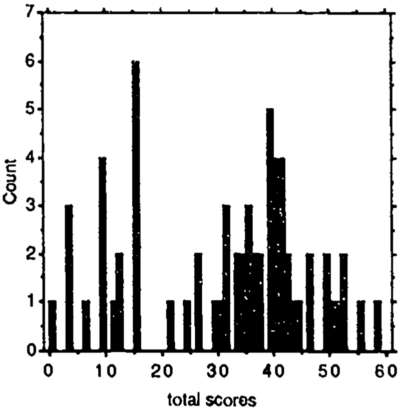

Fig. 4. The distribution of attitude scores ($n=65$, max. 60 points)

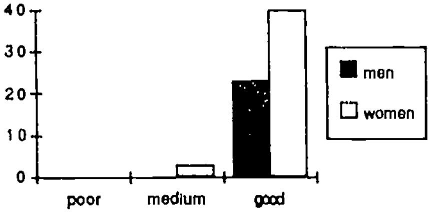

Fig. 5. Total scores of men and women in knowledge questions (poor=0–29, medium=30–59, good=60–91 points)

Multiple regression was done with standard sum scores. Reading ability (beta standard coefficient 0.38), using the hearing aid (standard coefficient 0.14), studying in high school (standard coefficient 0.17), and the level of basic education (standard coefficient 0.17) were most important variables explaining of success (R^2 was 0.28).

The knowledge questions were divided into 3 factors by factor analysis (oblique solution-varimax), using Cattel's scree test. Loadings over 0.49 were used when interpreting. Two questions (19 and 23) had to be excluded from the analysis because of no variation. Missing values were replaced with the mean.

The first factor could be called a civics factor. It had high loadings on 7 questions, and the highest were on university studies, Finnish republic, responsibilities of a citizen, what is allowed according to law and comprehensive school. These are matters every citizen has to know at least something about.

The second factor could be called an institutional factor. It had 6 questions with good loadings. The questions included trade unions, the army, the Council for Disabled and the responsibilities of the parliament. These are unknown matters for many.

Factor 3 had 3 questions with high loadings. These questions dealt with services for hearing-impaired people, how to get a job and the treaty of cooperation with Russia. This could be called a personal affairs factor.

The distribution of factor scores in all factors was studied according to sex and age. For men and women, the shape of the distribution was negatively biased in factor 1 (civics factor), and normal in factor 2 (an institutional factor). The distribution of factor 3 (personal affairs factor) was normal for women and negatively biased for men. No significant differences were found with regard to age.

Satisfaction

The satisfaction section was completed by 68 hard-of-hearing people.

The maximum score was 60, and the points ranged from 29 to 60. The median score was 47, the upper quartile 52 and the lower quartile 42. The scores were divided into 3 categories in the Fig. 6 (low 1–19, medium 20–39, high 40–60 points).

More than 70% of the subjects were satisfied with: security policy, Finnish republic, quality of life, municipal democracy, law and order and education.

More than 40% were dissatisfied with: financial matters (food prices, own salary), hearing-impaired people and society (are politicians interested in hearing-impaired people, equality with the hearing and social services).

The t-test showed that men ($n=23$) were a little more satisfied than women ($n=43$; $P=0.06$), for men mean=49 (SD 6) and for women mean=45 (SD 7).

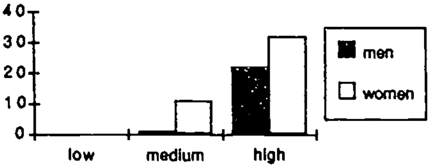

Fig. 6. Total scores of men and women in satisfaction questions.

Age was not significant. When using standard scores, sex and age were not significant. Regression analysis gave no good explaining variables.

The factor analysis (oblique solution-varimax) was done with Cattel's scree test. The smallest accepted loading when interpreting the factors was 0.469; missing values were replaced with the mean.

The first factor had 7 questions with loadings over 0.469. They dealt with school education, own municipality, services for the disabled, own occupation, salary, standard of living and the health care system in Finland. It could be called a personal matters factor.

Factor 2 got 5 questions with high loadings. Substantial negative loadings were obtained for questions dealing with services for disabled people and for hearing-impaired people. Positive loadings were obtained from questions pertaining to Finland in general, police work and the Finnish electoral system. This could be called a general satisfaction with the society factor, remembering that services for the disabled received negative ratings.

Factor 3 had 4 questions dealing with services for hearing-impaired people, leisure activities, equality with hearing people and newspapers. The highest loadings were on free time, so this factor could be called a free time satisfaction factor.

Analysis of the factor scores according to sex gave the following results: in factors 1 and 3 the distribution was normal for both men and women, and in factor 2 the distribution was negatively biased for both men and women. Analyzing the factor scores according to age yielded no additional information.

Activity

This part of the questionnaire measured how much hard-of-hearing people participated in various activities in society. The maximum score was 34 ($n=68$), the median was 29, the upper quartile 30 and the lower quartile 27; the points ranged from 21 to 34. The activity points were also divided into 3 categories, passive, active, and in between (passive=

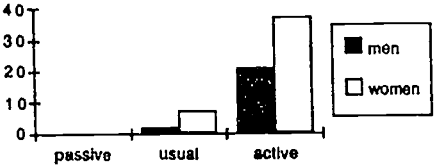

Fig. 7. Total scores of men and women in activity questions.

0–11, in between=12–23 and active=24–34 points) (Fig. 7).

At least 88% of the sample indicated that they were active in each of the following: voting, church membership and different aural associations.

Very little activity (activity rate under 47%) was shown in the following items: adaptation course attendance, rehabilitation guidance, using a sign language interpreter and membership in a political party. The activity section describes the profile of Finnish citizens in general.

No difference in activity was found according to sex, but age was significant. The activity rate was lowest among young people, then it became a bit higher in the next group, the second oldest were most active ($P<0.005$), and then it turned slowly down again for the oldest group. Regression analysis gave no high explainers.

Factor analysis (oblique solution-varimax) was done according to Cattel's scree test. Question 2 (How can hearing-impaired people affect their living?) was excluded, because of no variation. Three factors with loadings over 0.50 were used when interpreting the factors.

The first factor obtained its loadings on questions concerning voting, so it is called the political activity factor. The second factor had 5 questions concerning aural associations, adjustment course attendance and the will to change something in Finland. It will be called a hearing-impaired activities factor. The third factor was based on 3 questions concerning religion and church, so it is called a religious involvement factor.

The distribution of factor scores was normal according to sex. On the basis of age, the distribution of factor scores was negatively biased for the younger group (aged 15–50 years) and normal for the older (aged 51–87 years). Older people were more active than younger ones.

Values

The majority (46/68%) considered themselves to be good citizens; only 7 (10%) said they were not and 15 (22%) did not know. According to the majority of responses, good citizens are industrious, reliable, faithful, know their rights and responsibilities, are not heavy drinkers, want to work and take care of their family.

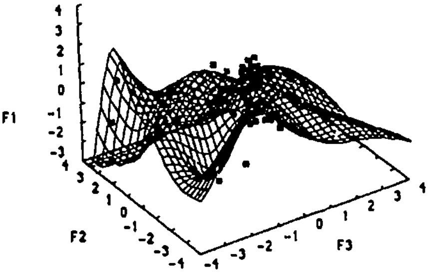

Fig. 8. All participants in factor space (F1=knowledge factor, F2=satisfaction factor, F3=activity factor).

The visions of the future, the year 2000, were rather more negative than positive: most of the participants expect to have a more international Finland, but if too many nationalities here, there will also be more pollution problems and more unemployment. The important things in life were easy to list; the most often mentioned was health (28 mentions), the next was home, family and children (22 mentions). Third was peace (10 mentions) in the world, followed by own livelihood, friends and unpolluted nature. Some old people wrote: "A good painless death".

Attitudes

The attitudes toward "deaf people", "hard-of-hearing people", "hearing in general", "hearing service workers" and "decision-makers" were studied: 65 people answered at least some questions.

There was one question for each of these 5 groups, and every question was followed by 4 possible responses, ranging from a positive alternative (3 points) to a negative one (0 points); a) friendly, quite friendly, quite unfriendly, or unfriendly; b) from warm-hearted to cold, c) from industrious to lazy and d) from reliable to unreliable. The median score was 35 (of a total of 60), the lower quartile 15 and the upper 41; the points ranged from 0 to 58.

Many people did not know how to answer and that is why many data are missing. The mean of missing data per question was 19.5 (range 8–26) missing answers. Consequently, the results are interpreted here only on the basis of mean points. The group of people headed "hearing in general" (mean=2, SD=0.7) always received a lower number of points than "deaf people" (mean=2.4, SD=1.2) or "hard-of-hearing people" (mean=2.3, SD=0.59). Attitudes were most positive toward hearing-impaired people and most negative towards "the de-

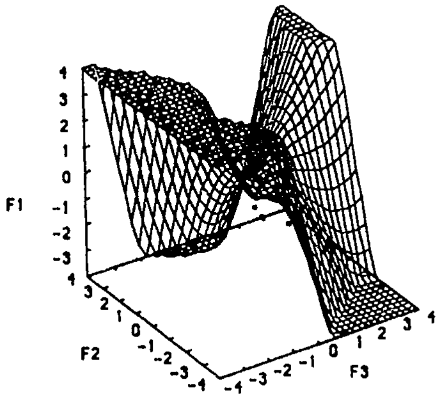

Fig. 9. Men in factor space (F1=knowledge factor, F2=satisfaction factor, F3=activity factor).

cision-makers" in society (mean=1.4, SD=1). The group "hearing service workers" fell in the middle (mean=2.1, SD=0.67).

Summary of results

Questions from parallel questionnaires (knowledge, satisfaction and activity) were subjected to factor analysis, which grouped them to these 3 factors. The factor scores from this analysis were used to make a 3-dimensional model, a factor space, first for all participants and then for men and women separately (Fig. 8).

All participants formed a rather positive figure, with only few negative values. Gender comparison, however, allowed for differentiation (Fig. 9).

Men are rather homogeneous, receiving positive values in all questionnaires. Women are more heterogeneous, receiving both positive and negative values (Fig. 10).

No big differences were observed between the sexes in *t*-tests, but this 3-dimensional model suggests that, taking into consideration all aspects of the view of society, men are more alike.

Discussion

People had rather good knowledge, and they were quite satisfied and active in certain fields; however, matters and services concerning just the impairment (adjustment course or rehabilitation guidance) were unknown, unused or caused dissatisfaction. The loadings on services for disabled were negative. People did not know enough about the available services or there were not enough services for everyone in need.

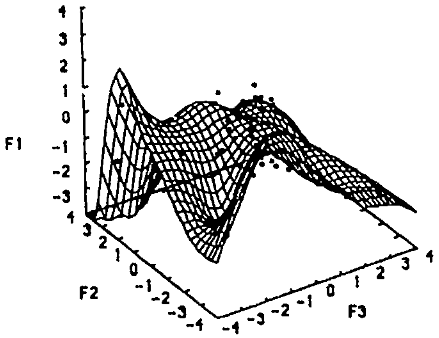

Fig. 10. Women in factor space (F1=knowledge factor, F2=satisfaction factor, F3=activity factor).

Hard-of-hearing people did not use sign language. Aural associations and church activities interested many. However, not many other activities were reported in this study. People had hobbies for which hearing was not important.

The structure of the data was specific, the majority of the participants were retired and the age when the hearing loss started was unknown for 22 people. Those who were well informed tended to be those who reported that they had good reading, writing and speaking skills. They also used their hearing aid almost always and were interested in studying new things. Also, those who had passed the matriculation examination (9) or had attended high school (6) got good scores on the knowledge section. Old people knew less; the second oldest knew most.

All people participating in this study volunteered by sending their address to the researcher. Isolated, lonely hard-of-hearing people, who were not members of an association, were not included. As a result, the results can be "too" positive in the light of, for example, Naevdal (1992), who found that hearing loss and depression were related.

The distribution of factor scores was often negatively biased, which means here that the questionnaires were too easy, and clear differences between people were not found.

The subjects reported that they were in good control of the cognitive element: the operational element was directed to the subjects' own association and church activities; the social element included communication difficulties because of hearing impairment. This is why hard-of-hearing people preferred to be with equals or friends who knew about their hearing problem, even if they usually marry a hearing person (Orlans, 1988; Rice, 1984). Finally, the subjects generally reacted positively to the emotive element in general; however they reported that services for hearing-impaired people were dissatisfactorily organized. The subjects had many suggestions to improve the situation: they wanted free batteries for hearing aids and better information provided by hospitals to aural associations about the hearing-impaired individuals. This is now difficult because of hospital regulations on the confidentiality of patient-doctor relationships. The induction loop system is used in many places, but it is switched off too often. Many other things were mentioned, but they could have been said by anyone ("I hope I stay healthy," "I would like to get a better job.", etc.) not just by hard-of-hearing people.

The group solidarity or coherence of hard-of-hearing people is different from the group identification of deaf people, who form a tight community, and their friends and activities are mainly organized by their local associations. Hard-of-hearing people often identify themselves with hearing people, and already at school age they manage with normal services if enough adequate technical, social and educational facilities are available (Kvam, 1990; Weisel & Reichstein, 1990). The hard-of-hearing do not form a tight culture: special services were partly unknown, they did not use sign language or MHS, and their activities were like those of other Finns, except for their membership in the local aural association.

Hearing loss has been noticed to turn into a handicap in several situations, such as situations relating to environmental factors (obstacles in receiving information when no induction loop system was available) or in situations relating to life habits (stressful social roles; for example, in leading a group discussion) (Lillemor et al., 1993). Mild hearing loss is considered a small handicap, defined by the social environment. In some environments it is not a handicap (Hogget, 1991). Living and moving from a microsystem to a mesosystem and even to an exosystem (Bronfenbrenner, 1979, 1991) is possible for hard-of-hearing people more often than for deaf people, mostly because of the language.

Hard-of-hearing people want to integrate into society and often succeed. They do not form a tight group with their own ideas; they would prefer to be ordinary Finnish citizens.

Acknowledgement

This research was supported by the Finnish Federation of the Hard-of-Hearing

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STUDY III

Marjatta Takala

"They think I'm stupid, but I just don't HEAR!"
The life stories of hard-of-hearing people in Finland

Accepted to be published in **Scandinavian Journal of Social Welfare** in 1995

Abstract

Ninety-eight stories about being hard-of-hearing in Finnish society, written by HH adults, were analysed. The writers were satisfied with personal equipment received from society, but public places lacked e.g. tele-loops. Also many officers were unable to communicate with hard-of-hearing people. Contacts with other people were limited, people started to isolate because communication in big groups and noisy situations was difficult. Older people, who were able to choose how to spend their time, seemed to be more satisfied than those who had to manage at work with their impaired hearing. Six types of stories are presented here: stories written by 1) young and 2) old people, 3) by male and 4) female writers and 5) positive and 6) negative stories. Also a common theme, communication, is presented in detail.
The descriptive approach used in this study forms an entity with a questionnaire study.

The hard-of-hearing

The hard-of hearing (HH) are people who have a mild or moderate hearing loss, but who usually communicate by speech, often with the help of a hearing aid and lip-reading (The Curriculum for Hearing- Impaired, 1987). We have about 22,000 HH people in Finland (Raivio, 1980; Kuurojen kulttuurityöryhmän muistio, 1985).

The HH try to integrate into the hearing world. The hearing aid provides good assistance in it (Warland 1990), but communication in large groups and situations with background noise is still difficult for HH people. A hearing loss often makes people selective when choosing company; a small group of people who know their difficulties is better than a large group of strangers. People who articulate clearly and are patient enough to repeat words remain as friends (Orlans 1988). Most hard-of-hearing people go to an ordinary school and participate more in the mainstream of life than the deaf. Being a member of an aural association is not as common among HH people as it is among the deaf (Weisel & Reichstein, 1990).

Life story research

The aim of this study was to determine the view of hard-of-hearing people towards Finnish society. The HH people were asked to write a story about their life as hearing-impaired persons in Finland.

Life story, as a theoretical concept, denotes the developing course of one´s life, happenings and actions that have made life as it is. In autobiographies subjective sense perceptions are given objective form (Kröll, 1981; Vilkko, 1988). The goal in using this descriptive approach was to get closer to sensitive issues that are easily ignored in quantitative research.
The designation "autobiography" is often used, but here it is too broad a term for the essays analyzed in this study and life story is more suitable. These essays are topical life-stories (Allport 1951) in which the main topic is the hearing impairment. This study is a part of a questionnaire study, which was undertaken in order to complement a recent study of the view of society HH adults have (Takala, 1994).

Procedure

A total of 98 volunteer hard-of-hearing adults volunteered for the study. They were identified and contacted in 3 different ways.
- The Journal of the Finnish Federation for the HH, *Kuuloviesti*, distributed to all of its members, carried a description of this research , along with instructions and an address where to send the life-story (see below).
- There are over 80 local associations for the HH in Finland (Ojala & Pöntys, 1990). The researcher chose the addresses of the ten largest associations, wrote to their secretaries and asked them to collect addresses of volunteers and send them to the researcher.
- Information about life story research was also distributed in a local bulletin for the HH in Helsinki.

In the instructions the readers were asked to write a story entitled "My life as a hearing-impaired person in Finnish society ". The writers were asked to answer at least the given questions, but they were also engouraged to write more as they wished. Also some background information was requsted (age, education, profession, when the hearing loss occurred and other handicaps). The following questions and information were included: "Tell me where you went to school? How much have you studied? Where are you working? Do you like your work? Have you encountered difficulties because of your hearing loss at the bank, post office, shop, etc? Do you vote? Do you have some hobbies? Are you equal to those who hear normally? Do you use an interpreter? What services have you got from society because of your hearing loss? Is Finland a good or bad place to live? Why? Are you satisfied with yourself and your life? Tell me more about what comes to mind about the given topic. Don't worry about mistakes in your writing. The matters you write about are more important."

Subjects

Life stories were written by 98 people, 32 men (mean age 62 years, SD 17) and 66 women (mean age 55, SD 20). The ages ranged from 15 to 91 years, the mean age being 57 years, SD 19. Two people did not give their age, but the generation they belonged to could be estimated from the story, and the age of one woman was estimated according to the decade she went to school. Twenty-four (24%) people had the hearing loss since birth, 28 (29%) had developed it in childhood, 26 (27%) had lost part of their hearing as adults (before the age of 55), six (6%) people had lost it in old age, and fourteen (14%) people did not respond on this issue. The aim was to contact people who had been HH a long time, who had had many experiences with their impairment and whose adaptation process (Roy & Robert 1981) was not at its beginning.

Reporting the stories

The stories can be divided according to their mood (Roos, 1988) into neutral stories (44), where facts are told as they are; happy stories, in which more than half is positive (20); and into sad stories, in which more than half was negative (17). In the data there were also only short answers to certain questions (17), such as:" Do you vote?" " Yes, I do."

The stories can be grouped into: 1) real-life stories (41), 2) short answers with life stories (40) and 3) only short answers (17). Real-life stones are stories where the authors present their own narrative structure and select their own information. They can mention something concerning the given questions, but it seems to be a coincidence. Short answers with life stories are documents, in which the author first answers to given questions, many authors even number the questions and then begin their own story or vice versa, first writing a story and then writes something like: " Aha, I forgot to answer your questions, here are my answers." It can also be a story structured so that there are only answers to the given questions, but the answers comprise several sentences per question. Short answers are very brief comments on given items, sometimes only yes or no, or perhaps a short sentence such as: "Do you have some hobbies?" "I read". They can also be one, two or three sentence stories of life, a very compact summary, such as: "Life is difficult." (table 1).

Table 1: The mood of the stories

	positive	neutral	negative	short answers	N
women	15	29	13	9	66
men	5	15	4	8	32
N	20	44	17	17	98

The writers were divided in 3 socio-economic groups according to their profession (Statistics Finland, 1987). Eighteen people were in the first group, 61 in the middle and 14 people in the lowest group. Five people did not have a profession yet. Only 3 people told about high school studies.

Life stories can be categorized according to themes that emerge from them after several readings. In this data, 15 themes were found. Some were the same as the given questions and some were new items:
1) education, 2) work, 3) as a client, 4) political interests, 5) hobbies, 6) equality, 7) interpretation service, 8) services from society, 9) satisfaction with oneself or one´s life, 10) human relations, 11) strong experiences (e.g. the etiology of hearing loss), 12) communication, 13) problems with hearing, 14) how to help the hearing-impaired and 15) the hearing aid. Many items were interrelated, mostly through communication, which is needed in shops, as well as at work or in school. Items 11, 14, 15 were new ones, and items 10 and 12 contained new elements.

The age of the writer is important because people born in different decades have lived in a very different society. Roos (1988) divides people in 4 main generations according to the history of society, the first one being the generation of war and shortage (people born in 1920-1939), the next one the generation of great change (1940-49), followed by the suburban generation (1950-59) and finally the rock generation (1960-69). In this research the generation division must be broadened a bit, the first generation beginning from the year 1900, and the last generation ending in the year 19/6 (table 2).

Table 2: The number of men and women in different generations

	men	women	N
the war and shortage generation	22	37	59
the generation of great change	6	10	16
the suburb generation	2	8	10
the rock generation	2	11	13
N	32	66	98

Another very important distinction in the content of the stories can be drawn on the basis of the gender of the writer, because women tend to write more about relations and family, whereas men write about their work and career (Roos, 1988). Work was one of the given categories in this study, and 22 men (69 %) and 37 (56%) women told about their work. The number of women commenting on work was surprising. Even though family was not on the question list, 22 (33%) women and only 2 (6%) men nevertheless told about their family.

In the results I present 6 types of stories, based on the following aspects: the age and the gender of the writer and the mood of the story. The presented pieces are: 1) piece of stories from older and 2) younger writers. Then 3) negative and 4) positive stories, and finally 5) female and 6) male stories. Finally comments on a major theme, communication, are presented, because that theme is present in all stories. The stories are chosen to saturate the theme they represent. Some sentences have been left out to avoid redundancy or to shorten the story (marked by....).

The stories in general

The length of the stories varied; the smallest accepted story was 2 words and the longest 1674 words. That means the two longest stories were 5 typed pages and 7 hand-written pages. The lower quartile in men's stories was 55 words, and the upper quartile 314 words, SD 220. median 145. The lower quartile in women's stories was 55, and the upper quartile 415, SD 331, median 213 words. The difference between the lengths was not statistically significant.

The writers were identified by a number followed by their age (for example, person number 1/31 is 31 years old). Some facts (such as names of places) have been changed in the following quotations to make identification impossible.

Exerpts from stories from older hard-of-hearing people

These are people who belong to the 2 oldest generations, together 75 persons, 47 women and 28 men, with ages ranging from 51 to 91. One third of them studied after compulsory school about a year, one third more than a year and one third had no additional education, however, not everyone reported about their studies. Only 7 persons said they had not experienced any difficulties because of their hearing impairment, 46 had had difficulties. All writers except one exercize their right to vote. Only 13 people felt equal with the hearing and 22 persons said they are not equal. The interpreter service was not used, but other services from society were familiar and were used eagerly, mostly the hearing aid and other auxiliary equipment. Thirty-three writers said they are satisfied with themselves and their life, and everybody felt Finland is a good place to live.

A woman (68/about 70) from Pori told a typical story, beginning in her childhood at the time of her impairment.

"When I was five years, I got scarlet fever or measles. I just remember that I was very ill. I had high temperature and then I developed chronic otitis At that time children were not taken to a doctor. I remember I just sat near the oven and my father, who worked on building site, brought something which was used when making houses warm. I had to put it on my ear and the warmth helped, the ear didn't hurt so much then. Not until school began did I see a doctor; my ear smelled then terrible. I was married when I was 22 years and had two children. I worked at home 15 years and was then afraid of going to work because of my hearing, but I had to... I managed quite well.... I have been

very depressed and isolated I was afraid of people. My husband was ashamed of my impairment and we went nowhere together. ... Now I visit a club with other hearing-mpaired persons. We can discuss our problems."

Another women (54/84) told a familiar story about her rehabilitation:

"At that time medicines were not so good. When I was four years old my hearing decreased after a whooping-cough. My parents took me to Uusikaupunki and then to Turku by boat and on horseback. The travel to the doctor took three days...I got no help. Finally mother got me to Helsinki, but the only help was to blow air into my ears...I remember those blowings. I had to stand, I was four years old you know, and take water into my mouth. Mother counted one, two, three and on the count of three I had to swallow and mother blew air with a pump so that it would obstruct the gullet.... Most often the water and the air were stuck in my throat because I was exhausted."

A male writer (60/61) from central Finland reported he didn't get good rehabilitation because of the Second World War. He also had measles and then otitis. The country was at war and doctors didn't have antibiotics.

"After the war I had an operation. I didn't recover my hearing but the ache stopped... My lip-reading ability developed and I managed quite well... At work the meetings and information situations were difficult. I got along with my hearing aid.... When going to banks or shops, it's clear there are difficulties. People use their voices differently, at different volumes and background noise makes hearing difficult. .. I try to say I don't hear properly. Then people speak more clearly for a little while, and then they forget it and I don't want to tell them again.. I have noticed that those who also have an impairment understand me better than others... My hobbies are limited. I don't go to groups with normally hearing people. I can't follow.. although I ask them to speak clearly. I rather go jogging or travel with good friends....I have got all the auxiliary equipment I have asked for, including a telephone with an amplifier, doorbell, tele-loop for tv and different courses in lip-reading and sign language... I feel I'm not equal, because I can't choose from all jobs or all leisure time activities I want... Still I'm quite satisfied with my life. Finland is a good place to live .. although there should be more tele-loops in public places... Hearing impairment causes psychological problems. for example isolation.. We are easily stigmatized as stupid."

Exerpts from stories from younger hard-of-hearing people

These are people from the 2 youngest generations, together 23 people, 4 men and 19 women, with ages ranging from 16 to 50. Twelve of them studied after compulsory school more than one year, three only 1 year and 2 said they hadn't any additional schooling. Seventeen have faced difficulties because of their hearing impairment, and 12 persons say they are not equal with the hearing. Only 5 people have used an interpreter, 10 say they have never used one. However, other services from society are used. Nineteen writers say they are satisfied with themselves or with their life.

One writer (17/23) from Helsinki reported that he got his first hearing aid when he was about 4 years. He thought that it was a late time and that that was why (perhaps) he is still unable to say all letters (for example R,S and K). He was at first in the school for the hearing-impaired, and later he moved into a normal class :

"I probably don't even have to mention that I was teased! Later I matriculated with good papers (laudatur) and attended the university ... Now I'm satisfied with my life. I have found other hearing-impaired people and it was a relief... I feel I'm equal with the hearing except on the phone, people speak so indistinctly. I'd like to get a personal secretary. .. I get a financial allowance because of my impairment, 1600,-. It was hard to get it, I had to find out everything myself, the National Pensions Institute (KELA) doesn't reveal anything."

A woman (16/25) from Helsinki wrote that she went to an ordinary school and was matriculated in 1984. After that she studied in vocational school, and she is still studying....

"I have had difficulties when I haven't heard. In spite of all my equipment (hearing aid, FM, etc.) it is exactly the small stories and jokes my friends tell which are problematic. If I don't get them at first , I won't get them at all. I hear what is said straight to me but this small talk, which is important in social situations, is lost.... My leisure time activities are reading, writing and shopping... Sometimes I feel insecure, e.g. in the swimming hall when I can't use my hearing aid or when I meet new people and I have to explain about my impairment to them... I am beginning to be satisfied... I can demand money and services; I'm young and I run everywhere with my papers."

Positive stories

A positive story was recorded by a male writer (66/73) from central Finland. He begins with his army and war experiences, which are not positive. Then he tells about his work.

"I was a hard-working man. I have always wanted to prove that I can do what the hearing can.The bad hearing didn't bother me at work. I asked for all instructions in written form and got them. Doing business in shops and banks goes well. After accepting my impairment I have explained I don't hear properly, and I have asked the officers to write their answers. When I ask this kindly, they do it with pleasure. ... I prepare my business well, e.g. in the taxation office I feel I'm entitled to equal service with the hearing, because I also pay taxes. The officers have to serve me in a language I understand, that means in written language. ... It is not easy to be hearing-impaired. When I was younger I felt slighted. Gradually I began to know my limitations, and I learned to defend myself."

A positive story was written also by a female writer (79/52). She tells about her work and how her impairment is taken into consideration at work so that she doesn't have meet public.

"My hobbies are travelling with my husband, and all sorts of congregational activities are near my heart.... I have received the hearing aid as a social benefit, and also the repairs are free, but batteries for them are not free ... I think because I'm in the labour market , and hearing is important , and I use my hearing aid effectively and I'm active in trying out all new equipment they (the National Pensions Institute, or Aural Centre, researcher note) are always ready to help me and give me the newest hearing aids."

Positive aspects are also noted by a male writer (6/45) from western Finland:

"If I don't see the speaker, I have difficulties with my hearing, otherwise I manage well... I have many hobbies, for example cycling, skiing, swimming, reading, movies, etc... I feel I'm equal, except when I'm given loudspeaker information in stations... Society has given me a lot... It is good to live in Finland and I don't demand much.... My work now is nice and I have enough education, I also got an amplifier for my telephone."

Negative stories

A female subject (41/51) from Helsinki began her story from the time she was in school, telling about negative happenings, e.g. an encounter with an angry teacher:

> *"I tried to see why the teacher was so angry and then she rushed to me and shouted to me. I had to go to her class to be told off and I didn't know what I had done. Later my classmates told that the teacher had wanted me to stand properly in the row. I remember an oral German examination. The teacher walked here and there while speaking and I heard nothing. I got zero, and although the teacher had promised not to change grades in reports, she lowered my grade a lot."*

Life at work was no better. The employers and workmates did not understand the hearing-impaired.

> *"I had to discuss with people in my work and the radio was on. I heard nothing but the radio.I turned it off, but my workmates turned it on again. ...I feel that all the negative things confront hard-of-hearing people. Why is there nothing about it in Kuuloviesti, it is such an up-beat newsletter. We should also talk about the negative aspects. It is not mere complaining, it can also be helpful to those in the same position."*

One woman (67/64) wrote about shops and banks:

> *"The behaviour of the officers should be better. It is usual that the officer stares at her papers and mumbles something, and doesn't establish eye contact, and when you are unable to see her face, you can't read lips. If I ask her to repeat , I got a similar, unclear answer or nothing, just an angry look. In the worst situation they start to scream and that helps nothing. The voice is just broken in the hearing aid."*

Stories by men

This story is written by a man (73/73). He starts from the beginning of his impairment, when he was 5 years old.

> *"I got influenza and so it started. It didn't bother me a lot, not even in elementary school, but then came the languages. It was difficult to follow the teacher's talking. At that time we didn't have good hearing aids. I had to find education in technical areas and it was a good decision. The hearing impairment caused a few problems in the army, but after the war there was*

much to be done. I had to find my place in society, and politics was one way... however, I later gave it up and chose to work in cinstruction. The environment was full of noise, so speech was loud and I got on well. Meetings were more problematic... I have used many hearing aids and I think I have managed well in life."

Male writer (74/82):

"I'm retired now. I always found work. I have worked 55 years. I found work as a farm hand; harvest work, work as a horseman, cutting the corn, etc. I did all kinds of jobs before I was 17...I was also in Helsinki on the docks and in a factory. they were noisy places and my hearing decreased there even more... We had to shout to each other in that noise...For the last 15 years I have been working in a laboratory where I would have needed to hear better. I got extra alarms for my doorbell and telephone and I did not have to pay for them. All kinds of funny things have happened in offices because of my bad hearing. I hear wrong or answer wrong, tele-loops are not very common...I don't have many hobbies, I don't hear properly in lectures.. I don't feel equal with the hearing- I hear crusty voices saying: 'It is impossible to talk with you, you don't understand anything.' I try to be satisfied with myself, I can't change my (hearing) ability. Nowadays I'm very often idle and often I do nothing".

In these two and in most of the male stories the family is left aside. The reader does not know it if the writer has a wife or children.

Stories by women

This story is from a woman (65/35):

"I work at home now ... I have managed quite well in banks and shops, although sometimes I am afraid I can't read lips... I have a favourite hobby, I crochet... I have got services because of my hearing impairment... I have a tele-loop in my living room and I can watch tv in peace. I have also got a good hearing aid. I'm satisfied with my life. I'm the mother of three healthy children and my husband has been very understanding. When I was younger it was more difficult."

A woman (62/49) has a hereditary hearing loss. She has been working at home with 4 children.

"I got my first hearing aid too late I had wondered why people speak so unclearly... When I got my first hearing aid everything sounded strange. It took a year to get familiar with the machine. Now I couldn't live a day without it.... Some places are terrible, e.g. stations and hospitals, places where they use a

loudspeaker... Also in big groups of people it is difficult to hear your neighbour talking. .. It´s the same with officials, they speak so quietly... people speak and talk about a world for the hearing-impaired. Where is it? I feel I live in a world of hearing people with the same responsibilities as the hearing but with less rights! ... There should be more written interpretation in offices, hospitals and stations...The hearing aids should be more beautiful.... I have criticized society a lot. We must learn to say `I don´t hear well`. It is worthwhile."

Most women tell at least something about their personal life, children or husband. Their work is not so central.

Quotations about a common theme: communication

Communication was difficult , especially with strangers, but with a good hearing aid and lip reading people managed. If not, then they were isolated. This issue is present everywhere, it seems to be a key concept. Loneliness and difficulties in coping with the hearing problems seem to limit personal relations.

Many people write that they are shy, afraid of going to situations where many people speak together. Woman (94/81) comments: *"I feel isolated, I don´t catch anything." Woman (76/62): "I should defeat shyness." Man (45/59): "Some of our friends speak to my wife although it is meant for me." Woman (56/65): "Sometimes I shout, sometimes I scream... are you speaking to me! I´m mentally ill because of my hearing." Woman (1/31): "We hard-of-hearing are isolated, we are afraid we don´t hear everything, I wouldn´t like to explain to everybody that I don´t hear properly. I prefer to stay at home."*

Hearing people get a lot of criticism, as one woman (51/39) stated: *"People behave unfriendly if they don´t understand that I can't hear."*

Or as was very often mentioned, woman (23/43):*"We are considered stupid." Man (49/46):"Insecurity bothers hard-of-hearing people." Woman (79/52):" Shops and banks are familiar to me..., but hospitals, doctors and nurses... The doctors are clever highly esteemed people, but their speech is most unclear. I'm afraid of these situations beforehand."* Not even their own family members remember the difficulties of hard-of-hearing people, as woman (98/67) tells: *"I wanted desperately to go to a relative's funeral and to another relative's wedding, and meet other relatives, but it is too depressing just to observe, being unable to discuss."* People prefer to stay at home than face the problems; according to one woman (24/63): *"I don't dare to go alone... If I do something wrong because I don't hear well..."*

Let's give a woman (67/64) a chance to tell more:

"Already when discussing with two or three people you don't know what they are talking about. You can smile nicely, you answer wrong or not at all. You can't always explain that you are hard-of-hearing, neither can you always ask: "What did you say? What are you talking about?" The healthy don't understand your situation- they consider you stupid or proud, or both."

Summary

The services provided by society have been very different for the older generations in comparison to the younger ones. The oldest received very little or no rehabilitation in childhood, and they had less equipment, partly because of the lack of technical development.The age of the writer seemed to be more important than the generation in this data. Older people were more satisfied than younger ones who had to manage at work with their hearing. This means thatage is related to life situation. Communication is important throughout one´s entire life, but dependingon the age of the writer, the needs for communication are different. After retirement people could choose activities in which their hearing impairment was not a nuisance. Some old men who had been in the Second World War said their hearing impairment is a small problem. The ecological transitions, which occur throughout the life-span, change the person's position in the environment and also the demands of the environment. These transitions are e.g. going to school, becoming sick, changing jobs or retiring (Bronfenbrenner, 1979). These transitions are critical and the situation and environment at any given point in time is the most important thing when considering the effects of the hearing impairment.

At school and at work the hearing aid was a good help. Most people had been mainstreamed, and at least some teasing had taken place at school because of the impairment; integration was not satisfactorily fulfilled. Also other equipment (such as a telephone with an amplifier) made life easier and were necessary for success. Hearing aids were very important for everybody and with them people felt almost equal. That means people feel equal when they hear properly; however, background noise, music or many people talking together make hearing often impossible, so there are not many situations when equality is possible. Some people had had to give up their work because of their impairment. Few people mention tinnitus (Hazell, 1987) and Ménièr disease, which make life even more difficult.

Because of communication difficulties HH people prefer to be with good friends who remember their impairment. Their own family members are often impatient, they don't have the patience to repeat. People who spend less time with the stigmatized are said to find it easier to cope with them (Goffman, 1968). This was true in some families.

Only 7 people mentioned aural associations. For them an association was a place to spend free time where people understand hearing difficulties. More usual where statements that people have had to give up their hobbies or choose hobbies where communication is unnecessary. Isolation and feelings of inferiority or depression are seen in these stories, more or less.

Discussion

Because hearing can be seen as a social sense, impaired hearing makes interacting with people unsatisfactory. However, people had different attitudes toward their difficulties. Some people find coping systems; they prefered to ask the officer to write, they showed their card "I don't hear properly", they used equipment and requested more , e.g. tele-loops in public places. These people seemed to be more satisfied. Where do they get the courage to do all this? But even those who had a positive outlook on their life said the hard-of-hearing need help, understanding and equipment.

Depending on when the impairment began, in childhood or later in life, adaptation was different. Also the changing situation was embarrassing; hearing had been better and now it had decreased, requiring new adaptation. A severe loss, a new loss, dramatic chances in life such as losing a job, made the hearing impairment a circumstance that ruined one's whole life. People became angry, nervous, suspicious. However, some people adapted and found coping systems, and for the most part older people seemed most satisfied. Finnish society was rated positively and the services given for hearing-impaired were good, but people with normal hearing did not get good scores: they need to be more patient.

A descriptive, qualitative method seems suitable for studying this kind of disability. It shows life as it is, from the grassroots. This study is part of a questionnaire research (Takala, 1994) which gave a far too positive view of life. In the questionnaire study people had good knowledge of Finnish society, they said they were satisfied with the services they received and everybody had at least one hobby. They seemed to be rather well integrated into society. However, the personal and everyday problems when shopping, travelling, sitting in a theatre, in a lesson, etc. These negative aspects were not on view in the questionnaire study.

The structure of many stories was determined by the questions provided. That was perhaps necessary with some people, but it made many stories too neutral. Luckily many writers gave their own structure to the story. People wrote about being a hearing-impaired person in Finland, which at first seemed an easy role, but which hid many problems under the smiling answer: "Yes, I heard you."

Many writers found writing therapeutic and they expressed their thanks at the end: "Thank you for giving me a chance to tell you what has been on my mind. It feels good."

Acknowledgement

This research was supported by the Finnish Federation of the Hard-of-hearing.

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STUDY IV

Marjatta Takala & Ullamaija Seppälä

My Life as a Deaf Person in Finnish Society - Stories about Being Deaf

Accepted to be published in **JADARA** (Journal of the American Deafness and Rehabilitation Association)

ABSTRACT

Forty-one stories written by deaf adults about being Deaf in Finnish society, were analyzed and thematicized. The writers' lives were deaf-centered: hobbies were organized by deaf associations and friends were mainly deaf. Writers were acquainted with services for the hearing-impaired; the interpreter service was widely used and also criticized. Other social services such as hearing aids, financial support or visual door-bells were familiar, especially for younger people. Older writers seemed to be more satisfied with their lives whereas younger writers demanded more, e.g. educational equality.

The communication barrier with hearing people, which exists at a very early age, seemed to limit possibilities in life such as education and labour market opportunities. It was also a barrier in this research; written life-stories seemed to not be the best way to collect autobiographical data from deaf people. Stories were short and narrow in scope. Giving deaf people the opportunity to use sign language to tell their life-stories would probably have resulted in broader, fuller stories.

INTRODUCTION

There are about 8000 Deaf people in Finland, and 3000-5000 of them use sign language (The Educational Policy for the Deaf, 1994). Deaf children mainly go to schools for the hearing-impaired (meaning both the Deaf and the Hard-of-hearing) and attend vocational schools after graduation. Nowadays, when a child is known to be Deaf, sign language is recommended as the first language. Because sign language is not widely known outside the Deaf community, communication problems with the hearing society are common.

Deaf culture

Deafness is more than just a diagnosis, it is a cultural phenomenon. When a person is Deaf, she or he is at the same time part of a language minority. For a member of this minority three things are important: 1) personal choice, an individual wants to be a member, 2) acceptance, the group has to accept this individual as a member of the group, and 3) sign language, which is a basic element in the Deaf community (Higgins, 1980; Nash & Nash, 1981; Padden, 1989). When a person wants to belong to this minority, she or he uses Deaf rather than deaf as a sign of being positively inside the culture (Preston, 1994). The word deaf is used in non-cultural situations.

To be born into the Deaf community is rare, since 90% of Deaf children are born to hearing parents. Becoming familiar with Deaf culture usually happens with someone other than one's own parents. The actual severity of the hearing impairment is not so important; more important is whether the person identifies him or herself to be part of the Deaf community (Ahlgren, 1980; Meadow, 1980; Nash & Nash, 1981; Padden, 1980; Rodda, 1985).

If a Deaf person does not become part of the Deaf community, she or he is easily left to become a member of the marginal population with few contacts with other people, a minimal flow of information about the surrounding world, and limited social interactions (Olsholt, 1991), with hopes and fears regarding communication. One Deaf person said: "In social situations I'm afraid that someone comes to speak with me and that no-one comes to speak with me" (Orlans 1988, 35).

Deaf persons in a hearing society

Usually Deaf people have less social contact than the hearing people. Their social status is lower, and they seldom attain postsecondary education (Falkenberg & Olsholt, 1990) . The reading and speaking skills of Deaf people are not very good (Hakkarainen, 1988; Webster 1986), which makes communication with hearing people difficult. A large part of written and oral information does not reach Deaf individuals. Also the different sounding voices of Deaf people can arouse prejudices in other people, e.g. in employees (Doggett, 1989; Quigley & Paul,1984). All these make integration into hearing society difficult. Still, it might be possible if enough interpretation services were provided, hearing people were able to sign, and other aids were given for those who need them. So far the Deaf community is separated from the hearing society. (Walsh & Elredge, 1991)

About life-story research

The aim of this research was to study the life of Deaf adults via autobiographies to find out how they see Finnish society. Such research has not been done in Finland before, nor elsewhere to our knowledge. Qualitative methods have been used by Becker (1980) in a study of Deaf greybeards and by Groce (1985) in a study on hereditary deafness in Martha's Vineyard.

This research is part of a quantitative questionnaire study (Takala, 1994). By quantitative we mean a study using data handled by statistical procedures. Qualitative research refers to data which is "rich in description" (Bogdan & Biklen, 1992, 2) containing personal, meaningful issues which are not handled by statistics. Trough the qualitative method we hoped to obtain information on sensitive issues, on personal matters which are easily ignored in quantitative approaches, because they are difficult to measure.

The life-stories used in this research were short in comparison to those used by many biographic researchers (e.g. Thomas and Znaniecki, 1927). This is why the concept "autobiography" is in many ways too broad and the term "life-story" is more suitable. Biographies can be divided in three types: 1) comprehensive, 2) topical, and 3) edited. A topical biography is specialized in content in the same way as the stories used in this research (Allport, 1951). Here we obtained topical life-stories in which the main topic is being Deaf.

SUBJECTS

The subjects were contacted in three ways: 1) One hundred Deaf adults (56 men, 44 women) were selected at random from the register of the Finnish Association of the Deaf. There were 1597 Deaf women and 1634 Deaf men, over 16 years of age, in this register during 1991. Fifty of these hundred people got instructions for a) writing a life-story on paper and b) fifty got them on paper and signed on a video.

2) Seventeen Deaf young people were met personally in the Folk High School for the Deaf in Helsinki. The instructions were given to the students in a written form and signed.

3) There was an article about this researchprogramme in two periodicals for Deaf readers. In these articles Deaf people were asked to write a story about being Deaf in Finnish society.

The analyzed material consisted of forty-one accepted stories (20 women, 21 men; average age 35 years, age range 16 to 73 years). Twenty-three life-stories were received via random sample, 14 were received via the journal articles, and four stories were received from those who were met personally. Ten stories were excluded from the analyzed data because they had only one sentence, such as "I have nothing to tell" or " I went to school in 1951" (see table 1).

Table 1: Subjects and replies

persons contacted through	contacted subjects	no reply	rejected replies	accepted replies
1 a) paper instructions	50	32	4	14
1 b) video+paper instructions	50	40	1	9
2) personally	17	13	0	4
3) via journal articles	unknown	unknown	5	14
N	117>	85	10	41

METHOD

Congenitally and/or pre-lingually Deaf people were asked to write an essay about "My life as a Deaf person in Finnish society". Another alternative would have been an interview in sign language. This was not done because the expense of interviewing people would have exceeded the budget. Because research has shown that most Deaf people have modest Finnish language skills (e.g. Webster, 1986; Hakkarainen, 1988), subjects were provided with questions to guide their writing. They were also encouraged to ignore spelling mistakes. Eleven topics to write about were given: 1)Tell about your school, 2) additional training and 3) work. 4) Tell about possible communication difficulties in post-office, shops, banks, etc. 5) Do you vote? 6) Tell about your hobbies. 7) Are you equal with the hearing? 8) Have you used an interpreter? 9) What services have you received because of deafness? 10) Is it good or bad to live in Finland and why? 11) Are you satisfied with yourself and your life? Tell about anything else that comes to your mind about being Deaf in our society? People were encouraged to write freely, not only to answer the questions, but to compose longer stories. These questions were signed on the video and printed in the journal article. Also some background information was requested (age, education, occupation, age of onset, and possible additional handicaps).

Themes

The stories were meant to be arranged according to themes that arose after two researchers had read them. However, the themes were almost the same as the given questions: education, work, matters concerning interpreting, services from society, hobbies, equality, satisfaction with oneself or one's life in general, satisfaction as a client, human relations, and communication. The content of these themes was written down and the elements shared in common by several writers were noted. When reporting the results in detail, two basic distinctions were made: The first one between different culturally mediated stages of life, chronically arranged, beginning from childhood, school and education, then continuing with the working years and finally retirement. The second distinction was made between communication, satisfaction and social services. The first ones are social transitions in life and through them the contents of the second distinction can be analyzed. They are mostly analyzed from the point of view of communication, which turned out to be the most common theme. Satisfaction and social services were also popular themes, and they were of central importance when considering the feedback needed from users of these services.Those themes are also dealt with separately, concentrating on the common elements.

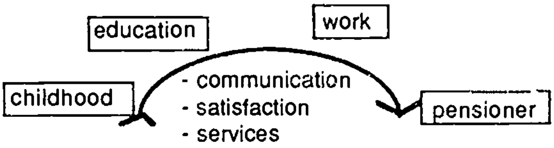

Figure 1: Life-span and themes

An entire story from a young and an older writer are chosen to represent the life experiences of different generations. The writers are identified in the text with a number and their age, e.g. person number one, who was 44 years is 1/44 (these numbers are used for information retrieval purposes). Some facts (e.g. names of places) have been changed to make identification impossible.

GENERAL RESULTS

The stories were written in Finnish and not always in correct Finnish. At first reading some of them were very unclear. When the two researchers read the stories and analyzed them, the primary researcher, who knew sign language, signed some of the confusing passages. Signing these passages helped to clarify the meaning: limited Finnish was changed into understandable sign language.

Women wrote longer stories than men. This difference, although discernible was not a major one. Giving exact questions seemed to be problematic because many writers prefered to answer only the given questions, sometimes only with a few words. Five (40/32, 21/60, 14/19, 2/62, 7/55) participants answered directly, briefly and only to the questions given. Other writers let the questions lead the story, they provided the structure for the majority of the stories. Three (10/56, 11/67, 16/24) stories were very short, only a few sentences long.

The stories could be grouped according to their mood (Roos, 1988) as positive, negative or as neutral stories. When more than half of the expressions in the story were optimistic, the story was considered positive. On the basis of a division on generation or sex, no significant difference in the mood of the stories was observed.

Table II: The mood of the stories

mood	women	men
neutral	10	6
positive	5	4
negative	1	5
short answers	4	6
N	20	21

The age of the writer has been found to be important. Roos (1988) divided people into four main generations according to the history of Finnish society, the first one being the generation of war and shortage (people born in 1920-1939, [but in this research beginning from 1909]), followed by the generation of great change (1940-49), then the suburban generation (1950-59) and finally the rock-generation (1960-69). Perhaps the next one could be the generation of computers. When the generation division was broadened somewhat, thirteen people belonged to the first two generations, born between 1909-1949, and twenty-eight to the last two generations, born between 1950-1975.

Table III: Division of subjects into generations

generation of	women	men
war and shortage	2	8
great change	1	2
suburb	2	4
rock + computer	15	7
N	20	21

The younger writers (people belonging to the two most recent generations) wrote in slightly better Finnish and they wrote longer stories than did older writers. However, the younger subjects had had few life experiences, they were at school, or studying, or looking for a job now.

RESULTS IN DETAIL

The results are given here on the basis of Figure 1, following the transitions of life. The two complete life stories are given first. An ellipsis (...) is used to indicate where material has been deleted to make identification impossible, or when material is repeated.

A story from a younger writer

Female writer (31/19) tells:

" I have been Deaf since birth, I'm now 19 years old...I'm the only Deaf person in my family. My mother and brother know sign language, but father doesn't sign well. I don't spend a lot of my time with my father.

I'm satisfied with my life and my deafness doesn't bother me, but what bothers me is the fact that people have prejudices and they think the Deaf are stupid and dumb. They think we can't speak at all. I don't like it! I wanted them to understand that we are equal. I *have noticed that matters concerning Deaf people are not told to hearing people e.g. in television or newspapers...*

Sometimes, when I visit a bank or post office, I get irritated because people stare at me, although nothing has happened. I usually write my business on a piece of paper and give it to the lady and if the matter is important, she writes back to me. When I go to a kiosk I speak. If the person there doesn't understand, I point...It would be good if the sales personnel were able to sign!... I don't have many hobbies now, because I study. I never spend my leisure time with the hearing, but with the Deaf, because it is easy to communicate with them and we have a good time together. If some hearing people were able to sign I might spend my time with them...I remember one day when we were snow skating, and during the break we were signing eagerly. Hearing young people were staring at us and wondering how the Deaf can do such a thing.... I don't know whether am I equal, but probably not, because people are unable to communicate with us Deaf. Of course you can communicate by using paper and facial expressions. I'm satisfied with myself and I want to be Deaf, but I'm irritated when some hearing people don't understand me. They are not used to listening to our voices, that is the reason. My voice is different. I can't help it."

A story from an older writer

A male writer 36/63 may represent an older person's view:

"I went to Deaf school in Turku. Now I work as a farmer. I take care of my farm with my family, and cattle have been the main source of livelihood until now. We have had to give up the cattle because my wife has been ill... I have extra work. During the winter I open the roads and in the spring and autumn I do fieldwork for neighbours.

When I go to a bank or shop, I write down what I want... In the summertime my hobby is orienteering (compass and map) with the hearing and the Deaf, and in the winter I play volleyball and fish. I haven't used an interpreter, for my wife and my children are my interpreters. I haven't got a lot from society, because my wife is hearing. 'She can take care of your business!' is the attitude...I'm not equal with the hearing, I'm not appreciated, not even by my own relatives."

Different themes

Here are pieces from stories representing different periods of life. Only one writer tells about his childhood, going to kindergarten, all others begin from school time, or later. All those who tell about school have attended a school for hearing-impaired pupils. Many subjects were irritated by the limited sign language skills of teachers or by the teaching material at compulsory school (grades 1 to 9).

From childhood to school and further education

Female writer (35/16):

"Teachers use sign language, but some of them don't know it very well."

Male writer (41/21):

"I'm not satisfied with the municipal schools. Teachers use books which are meant for the mildly retarded, the level is too low."

After completing primary school people either went to work, to vocational school, or into one of the two high schools for Deaf in Finland.
Many young writers said that they would have liked to study more, but that study possibilities were limited because the municipality would not pay for an interpreter, or no interpreter was available. Female writer (22/20):

"I had to stop my studies because I didn't get an interpreter."

Work

Eleven subjects do not mention work at all, probably because most of them are so young (under 20) that they are still studying. Others tell something about their work generally, but not much. They mention what kind of work they are doing; information about their work history, appraisal of quality of work, or job satisfaction is included in some stories. Vocations mentioned are farming, carpentry, industrial work, office work, and cleaning or working in different storehouses or stocks. A young male writer, (41/21) dreaming of becoming a veterinarian, stated:

"In Finland, as I see it, many Deaf can't get high-level professions. They are usually workers, working-class men."

This seemed to be true here. However, many of the younger writers had not entered a profession yet. The youngest writers were especially concerned about Deaf people's limited opportunities to enter a profession. According to male writer 33/19:

"At this point in time the Deaf can't get into a profession that doesn't suit them according to the evaluations of hearing decision-makers. Abroad, in Italy or the United States, the Deaf can become surgeons".

There were many negative evaluations of the working climate, and many difficulties arose for subjects working with hearing individuals. Feelings of suspicion about the ability of the Deaf to do proper work were not rare. One male writer (9/34) says:

"It´s difficult to feel a common spirit with the hearing. And it´s also difficult for workmates and bosses to trust the Deaf."

So, according to one female writer (34/16), Deaf Finns leave for Sweden because of better work opportunities and higher pay. In one case a younger writer wrote that the Deaf should be given partial responsibility for their own lot. Female writer 4/23:

"If we are satisfied with sheltered work, packing, etc., it is no use saying that the hearing are so "good"!

More than a half of the writers (60%) did not feel equal with the hearing, although they could and did vote just as the hearing do.

Communication, personal relationships and leisure time

The Deaf consider themselves a language minority rather than a group of handicapped people. Their language is sign language and very few hearing people have mastered it. When communicating with hearing persons the Deaf use writing. This way of communication is not easy; it is often embarrassing and it requires carrying paper and pencil. Hearing people easily feel that communication problems are being caused by the Deaf partner, although in reality the communication problem is just as much a problem for the hearing partner. However, the responsibility for fluent communication is given to the Deaf in difficult situations.

Woman (25/23):

" I communicate with clerks by writing if speaking doesn't help."

Male writer (1/44):

"With strangers it's a bit difficult."

Female writer (19/29) :

"I have had difficulties, people don't understand that they should use paper and pencil!"

The stigma associated with sign language and/or different speech is apparent; female writer (32/16) :

"Hearing people mock the Deaf and their language."

Male writer (38/18):

"It would be nice if hearing people learned sign language."

Female writer (35/16) :

"I could perhaps understand what hearing people say, if they spoke a little slower."

More than half of the subjects had had at least some difficulties as customers. Most people were handling their own bank, post, and shopping business. Still, there were some writers who did not visit any of those places. If problems existed, the Deaf usually used translators or hearing friends and family members. Male writer (1/44):

"I have it quite well at the bank. We have bill-paying services at the bank, cash cards, and so on. On rare occasions I visit the bank to correct mistakes, and the clerk understands when I talk. When I went to the bank manager to talk about loans I had a translator with me. When shopping all went ok. I followed the cash register's video and paid. Same at the post office."

Some writers wished that sales clerks, who are able to use sign language, would be identified just as are those who speak foreign languages.

Technical and social developments have helped Deaf people. Self-service shops, where products are chosen by the customers themselves and the prices can been read from the cash register video, are popular. Some Deaf individuals write their business in a note, or they speak a little aloud. Pointing is also quite useful. Contact with clerks is not needed when people have bill-paying transactions, and a lot of things can be handled by using a cash dispenser. From the point of view of a hearing consumer, the services have became worse, but the Deaf benefit from the cash dispenser. However, communication by reading cash registers is very impersonal, "thin" communication. Communication with hearing individuals in these situations becomes unnecessary.

Relationships between writers and family members who do not understand sign language were mentioned in a few of the stories, and these relationships tended to be distant. Writers distinguished very clearly between Deaf and hearing people. They also pointed out whom they got along better with. Lady 25/23:

"I've got good friends who are Deaf. These people are very important to me."

Having hearing friends was mentioned more by younger writers than by older writers, but best friends were usually Deaf. The fact that hearing friends are often in a helper's position is a feature that stands out in the personal relationships of Deaf people. A friend or relative is a spokesperson when visiting the doctor, at a shop, or at an office.

Many hobbies that subjects engaged in were such that there also was no need to communicate. The most common hobby was a sports activity, such as cycling, volleyball, tennis, or jogging. Seven people mentioned reading. Watching television was problematic, as the programs lacked subtitles. The writers only listed hobbies, they did not tell about them in detail. Many recreational activities were also organized by associations and schools. Female writer (14/19):

" My hobbies are reading, writing letters, skiing, body-building, and meeting friends (Deaf friends)."

Satisfaction and Services from society

According to many younger writers, to be Deaf is something to be proud of, it brings richness to life. Male writer 39/20:

"My parents are afraid that I hate myself because I'm Deaf. I said to them that I love myself and I'm satisfied."

Dissatisfaction was caused by the fact that hearing people do not always understand those with impaired hearing and that they do not want hearing-impaired life-long companions. Lack of postsecondary education caused worries about the future. Older people seemed to be more satisfied than younger ones.

Not all people knew about services available to the Deaf, but the majority indicated receiving several different services: interpreters, hearing aids, text-telephone, financial support for the Deaf, visual doorbells, vibration alarmclocks and text-TV. Most people were satisfied with these services and many young people took them for granted.

Male writer (6/73):

> *" When I was young there weren't any services, I know nothing about them."*

A younger female writer (12/25) knows more and says:

> *" I have used interpreter services and other services that the Deaf get. I'm satisfied with society."*

The emphasis of a young female writer (32/16) tells much about the changing situation regarding the use of interpreters:

> *" Of course I get an interpreter!"*

And an older male (36/63):

> *"I haven't needed an interpreter."*

The majority have used an interpreter, usually "in important situations" such as "buying a house", "in driving-school", "when studying", and "at a bank". Many Deaf people noted that it is difficult to get an interpreter. Some Deaf respondents have not used trained interpreters, but rather hearing or hard-of-hearing friends. Older people havn't had the opportunity to use an interpreter because the system is so new in Finland. They have had to manage by themselves. Sometimes the interpreter has not been good enough. Male writer (30/18):

> *"There are not enough interpreters, at least here in Eastern Finland".*

Male writer (41/21):

> *"I want a QUALIFIED interpreter!"*

Two factors are significant when using an interpreter: how difficult and how important the situation is. Because it is not so easy to get an interpreter, small matters are handled without one. If the situation is demanding, as the purchase of a house, or problems at school, Deaf people prefer to go into the situation with an interpreter

Writers were mostly content with life in Finland. It is said to be a free, clean, beautiful and safe country. There are no wars and the standard of living is high. Discontent was caused by high taxes, high prices, polluted air and lack of work, but these are matters that worry all people, hearing and Deaf alike. Male writer 21/60:

> *"It's good to live in Finland. It's a safe country."*

Retirement

Those who are retired tell about a hard life, without many services.

Male writer 6/73:

> *"My life has been hard work. Now it is easier, although the pension is low. I'm old, I know nothing about the services provided by society."*

Another male writer 18/70:

> *"I was in the war, it was terrible. It's good to be retired and I have gotten text-television and text-telephone. It is good to live in Finland."*

DISCUSSION

From these data a picture emerges of young, Deaf-consious people who know their rights and who are aware of the limited possibilities of the Deaf in a hearing society. Each lives in a microsystem (Bronfenbrenner, 1979; 1991) with his or her Deaf friends, but wants to move from system to system, meaning here using all the same services and possibilities as everyone else. The needs extend as far as to the exosystem, meaning e.g. using mass media, health care systems, education and social welfare as the hearing use them. An older Deaf person, on the other hand, has had to manage more on his or her own because no services were available when she or he would have needed them. To be integrated into society demands communicative competence. The fact that sign language is a real and rich language has not been understood for a long time. Before 1960 it was considered to be "a concrete system of gestures with a limited vocabulary and primitive grammar" (Moores, 1990). Researchers such as Stokoe, Bellugi, and their colleagues have given a scholarly status to sign language (Klima & Bellugi, 1979; Moores, 1990; Sacks 1990).

Communication problems can start early in life. Deaf children learn sign language more quickly than their hearing parents. Parents do not always understand what their child signs. At school not all teachers are fluent in sign language; they use yes-no questions instead of who, what, why-questions. Special, easy books are used instead of normal books. Teachers' negative attitudes towards Deaf children's abilities can reduce their life chances (Goffman, 1963). Because of a lack of dynamic interaction at home and at school, social-emotional and academic development is inhibited (Mather, 1990; Meadow-Orlans, 1990; Rodda & Grove, 1987). This early displacement seems to be one of the main reasons for problems in adulthood. After not being given a chance to succeed academically, Deaf individuals are often considered to be incapable of academic work. There are very few Deaf people in academic circles (Ministry of Education in Finland, 1985; Toyama, 1991), partly because Deaf people have not received the education they need and deserve.

In this research Finland was seen as a good place to live in; many services were available. However, some negative aspects were found: sign language competence of teachers and interpreters and TTDs could be better. Young people did not have enough educational opportunities, the selection of occupations was limited. We could talk about marginalization when considering Deaf people in the hearing society. They have few connections to society, as well as weak relations with family and other institutions, which is typical of marginalization (Helne, 1988; Sarpellon, 1987).
"Deaf pride" is a movement which stresses the positive sides of being Deaf and strengthens the identity of Deaf people (Preston, 1994; Sacks, 1990). This pride could be detected in some of the stories of younger people.
Age and life situation were most important matters when thinking of the view of society. The young people got more from society than older persons had ever received. However, society also demands more from the younger ones now.

CONCLUSIONS

Subjective experiences of social changes, standards of living, and the way of life are transmitted by autobiographies (Tigerstedt, 1990). Life-stories are interesting to read because readers semi-consciously reflect on their own lives. The writer has the freedom to leave out and put in what she or he wants. The validity of life-stories can be questioned. One story is always one story, but forty-one stories from Deaf people are more than forty heterogenous, isolated stories (Bertaux, 1981; Kohli, 1981). Because the stories are written anonymously, many writers find writing therapeutic and they express their thanks at the end: "Thank you for giving me the chance to tell you what has been on my mind. It feels good."

A central theme in many stories was poor education at school and limited possibilities for further studies. Bilingual education is becoming popular in Scandinavia. In bilingual teaching sign language is considered as the first language of Deaf pupils, and after fluencyis achieved, teaching of the oral language starts. This method seems to give better possibilities for Deaf pupils to learn also the oral language too (see Andersson & Lindahl, 1990; Davis, 1991; Drasgow, 1993).

The written stories were short and limited in topics, and they contained little autobiographical data. The reason for the large number of non-responding subjects was surely not that Deaf people did not have anything to say, but that the language used was not the native language of Deaf people. A better way would have been to videotape subjects' signed stories, although it is impossible to sign anonymously in front of a videocamera. Still, that approach should be pursued, especially for collecting older subjects' stories.

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STUDY V

Marjatta Takala

En jämförelse av tre frågemetoder vid undersökning av döva personer

Vid undersökning av döva personer används vanligen skriftliga frågeformulär som metod för datainsamling, mera sällan används teckenspråket. Detta förorsakar svårigheter i förståelse och kommunikation både för intervjuaren och den som svarar. Eftersom de döva bildar en språklig minoritetsgrupp borde de kontaktas med sitt eget språk, teckenspråket. På så sätt skulle man få säkrare information. I denna undersökning utreddes vilken skillnad användning av skriftliga frågor, frågor med teckenspråk på video och användning av teckenspråk vid personlig kontakt hade på svarens kvalitet och kvantitet. Frågeställningarnas syfte var att utreda vilken samhällsbild döva vuxna har. Teckenspråk vid personlig kontakt gav de flesta svaren, men för övrigt hade den använda metoden en förvånande liten betydelse.

INLEDNING

I Finland finns ca 8.000 döva, av dem använder ca 5.000 teckenspråket som sitt huvudspråk. De döva bildar en egen språklig minoritet. Eftersom de hörande i samhället inte känner till eller mera sällan kan teckenspråk, uppstår språkliga svårigheter lätt mellan dem och de dövas minoritetsgrupp. Svårigheter har också forskare som inte använder teckenspråket när de kontaktar den ifrågavarande gruppen De dövas språkliga färdigheter och kunskaper har vanligen mätts med test som är skriftliga eller i form av talat språk. På det sättet mäter man emellertid de dövas förmåga att förstå ett för dem främmande språk och inte deras förmåga till kommunikation och information på teckenspråket (e.g. Lou, Fisher & Woodward 1987). Enligt undersökningarna är dövas språkliga färdigheter mycket begränsade. Deras färdigheter i läsning och tal är svaga (e.g. Cantwell & Baker 1987). Efter

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läropliktsskolan har de döva en låg läskunnighet, enligt några undersökningar på ett ca 8-årigt hörande barns nivå (Quigley & Paul 1984, Hakkarainen 1985). Ändå har man konstaterat att de dövas lässtrategier är olika de hörandes (Webster 1986). När läsmotivationen stiger, ökar också färdigheten snabbt. Många döva har lärt sig lätt t.ex. speciell terminologi för det egna yrkesområdet under utbildning efter grundskolan (e.g. Kyle 1985).

Att skriva är också svårt, de döva har inte vant sig i skolan vid att använda språket funktionellt. De låter hellre bli att skriva eller använder enbart enkla subjekt-verb-objekt strukturer (e. g. Svartholm 1984, Webster 1986). Dock har Bellugi (1989) i sina undersökningar konstaterat, att döva 4-åringars visuo-spatiala färdigheter kan vara bättre än motsvarande färdigheter hos hörande barn som börjar skolan. Teckenspråket, liksom talade språk, lokaliseras till vänstra hjärnhemisfären. Visuo-spatial perception får där en abstrakt karaktär. De som använder teckenspråk har en god visuo-spatial språklig färdighet (Bellugi 1989, Sacks 1990).

I Finland har teckenspråket under de senaste tio åren fått en godkänd position vid undervisning av döva. Det har funnits i läroplanen för undervisning av hörselskadade sedan år 1987. I Danmark och Sverige har man inom undervisningen redan länge medvetet hållit i sär teckenspråket och landets talade språk. (Grunderna för grundskolans läroplan för hörselskadade 1987, Davies 1991).

UNDERSÖKNINGENS SYFTE

Denna artikel, som fokuseras på det som datainsamlingsmetod använda språket, utgår från en del i en undersökning om döva vuxna personers samhällsbild. Hur ser en döv vuxen som hör till en språklig minoritet, på det finländska samhället?

De döva vuxnas samhällsbild betraktades ur fyra aspekter: man kartlade deras kunskaper om samhället, tillfredsställelse med det, samhällsaktivitet och attityder. För att kommunikationssvårigheterna skulle minimeras användes flervalsfrågor, skrivna svar var nödvändiga bara på två frågor angående värden. Alla frågor togs på video med teckenspråk. Hälften av undersökningspopulationen fick frågorna både på video och som skriftlig enkät, och hälften bara som enkät. Därtill kontaktades en grupp döva personligen.

Undersökningens syfte var att testa en hypotes enligt vilken 1) svarsprocenten är större och 2) svaren kvalitativt bättre hos de döva som man kontaktar personligen eller som får frågorna med teckenspråk på video, än hos dem som enbart har fått frågorna på ett papper.

FÖRSÖKSPERSONERNA

Hundra döva personer utvaldes med slumpmässigt urval ur registret för De Dövas Förbund i Finland. Ett kriterium var att de var s.k. tidiga döva, dvs. föddes som döva eller hade förlorat sin hörsel innan de lärt sig tala. Till åldern var de minst 16 år. Denna grupp delades slumpmässigt i två grupper om 50 personer. Till den ena gruppen postades enbart en enkät, och till den andra frågorna på videokassett och enkät. Därtill kontaktades personligen 17 döva vid Helsingin Kuurojen kansanopisto (Folkhögskola för döva i Helsingfors,ö.a.). På detta sätt kunde man få tre grupper: «pappersgruppen», «videogruppen» och «kontaktgruppen». Den sistnämnda gruppen var mest homogen.

METOD

Frågorna grundade sig på grundskolans läroplan för hörselskadade, det sista läropliktsårets undervisningsinnehåll för samhällskunskap. Kunskapsnivå och faktaområden togs från läroplanen. Enkäten hade fem delar, vilkas syfte var att representera olika områden i samhällsbilden (Helve 1987, Niiniluoto 1984):

1) *Bakgrundskunskap*. Delen består av 64

flervalsfrågor. 2) Frågor angående *faktakunskap* om samhället, bestående av 30 flervalsfrågor som kan ge sammalagt 91 poäng. 3) Del som mäter *tillfredsställelse resp. missnöje* med samhället, 20 flervalsfrågor med maximital 60 för poäng. 4) Del som mäter samhällelig *aktivitet*. som kan ge 34 poäng. 5) Del som mäter *attityder* mot olika människogrupper, som kan ge 60 poäng. I enkäten fanns också fyra frågor som utreder *värden*, de kunde antingen besvaras skriftligt eller genom val av givna alternativ. (Se närmare Takala 1993).

SVARSPROCENTEN

De tre nämnda grupperna returnerade frågeformulären olika.

1) Av «pappersgruppens» svar kunde 12 inte godkännas eftersom de som svarat trots allt inte var tidiga döva. Två personer returnerade enkäten oifylld och 18 inte alls. På så sätt blev antalet returnerade svar 19. Av dem som svarat var 7 kvinnor och 12 män; medelåldern 48 år, spridning 19.

2) Från «videogruppen» kom 38 frågeformulär i retur men bara 27 innehöll svar. I den gruppen fanns 10 kvinnor och 17 män; medelålder 49 år, spridning 13.

3) I «kontaktgruppen» fick man svar från alla. I denna grupp fanns 14 kvinnor och 3 män; medelålder 25, spridning 8.

Tabell 1: Besvarade frågeformulär (antal)

	pappers-grupp	video-grupp	kontakt-grupp
män	12	17	3
kvinnor	7	10	14
alla	19	27	17

Fördelning av ålder och kön för dem som svarat resp. icke svarat visar ingen nämnvärd olikhet.

TECKENSPRÅKET

Området «bakgrundskunskap» hade de enklaste frågeställningarna, därfor översattes den inte till teckenspråk. Alla övriga enkätdelar tecknades. Teckenspråket tecknades av en erfaren, icke döv tolk i teckenspråk. Hon använde teckenspråk, inte tecknad finska. Forskaren är också själv tolk i teckenspråk, den slutliga versionen på teckenspråk är ett resultat av våra samtal. Forskaren använde själv teckenspråk i gruppen för personlig kontakt när det önskades.

FÖRTEST

Enkäten förtestades i två skolor för hörselskadade. Tolken som senare tecknade frågorna på video var tillsammans med forskaren på skolorna. Sju döva och sex hörselskadade elever deltog i förtestet. Efter förtestet avlägsnades långa, invecklade ord ur enkäten och texten förenklades. Eleverna gav också idéer för användningen av teckenspråket.

RESULTAT

Flera svar gavs av dem som fick frågor på teckenspråk än dem som fick enbart skriftliga frågor. Svarsprocenten för videogruppen var 54%, pappersgruppen 38%, och kontaktgruppen 100%.

Tabell 2: Svar enligt huvudgrupper

Frågeställning	pappers-grupp N= 19	video-grupp N= 27	kontakt-grupp N= 17
bakgrundsk. (Icke teckn.)	19	27	13
faktakunskap	18	27	17
tillfredställelse	18	27	17
aktivitet och värden	18	27	17
attityder	15	22	16

Attityddelen hade en annan struktur än de övriga med flervalsfrågor. Det var tydligt att den upplevdes som svår och lämnades därför helst oifylld. Frågorna angående faktakunskap mätte verkliga jämförbara kunskaper, dessa poäng möjjliggör en jämförelse mellan grupperna.

Tabell 3: Poäng för faktakunskap (max 91 poäng)

Pappersgrupp N= 18		videogrupp N= 27		kontaktgrupp N= 17	
medel	st.d.	medel	st.d.	medel	st.d.
57	20	63	17	70	10

Gruppen för personlig kontakt presterade bäst. Orsaker till detta är åtminstone två. Förståelseproblem fanns inte och det här var den yngsta gruppen som hade skolkunskaperna i gott minne. Näst bästa grupp var videogruppen. De övriga itemgruppernas poäng är inte jämförbara eftersom aktivitet, attityder och graden av tillfredsställelse är subjektiva variabler. Om frågan var svår blev den sannolikt obesvarad. Dessa obesvarade frågor är intressanta.

Tabell 4: Obesvarade frågor

Fråge-ställning (antal frågor)	Pappers-grupp N= 19	video-grupp N= 27	kontakt-grupp N= 17
faktakunskap (30)	3%	2%	0,2%
tillfredsstallelse (20)	1%	2%	2%
aktivitet (14)	0,7%	0,6%	1,3%
värden (4)	32%	49%	7%
attityder (20)	48%	27%	18%

Den personligen kontaktade gruppen lämnade minst tomma svar. I värdefrågorna krävdes skriftliga svar och de visade sig vara svåra för många. Itemgruppen attityder var ofta obesvarad på grund av dess annorlunda struktur. Ju svårare itemgrupp dess lägre svarsprocent. Regressionsanalysen gav itemgrupperna olika förklaringar enligt metod, ålder och kön.

Tabell 5: Regressionsanalys av itemgrupperna

	metod* R^2	kön R^2	ålder R^2
Faktakunskap	.09	.16	.14
Tillfredsställelse	.03	.11	.05
Aktivitet	0	0	.01

(*pappers-, video- och kontaktgrupp)

Om videogruppen lämnas bort och man betraktar bara pappersgruppen och kontaktgruppen stiger metodens förklaringsprocent med 5%. Stegringen är inte statistiskt signifikant beträffande itemgrupperna tillfredsställelse och aktivitet. Största ökningen syns i itemgruppen faktakunskap (tabell 6).

Tabell 6: Regressionsanalys av itemgruppen faktakunskap

	metod* R^2	kön R^2	ålder R^2
Faktakunskap	15	.37	.18

(*pappers- och kontaktgrupp)

Betydelsen av kön och metod ökar.

SLUTSATSER

Den bästa sistuationen hade gruppen för personlig kontakt, de svarade bäst både kvalitativt och kvantitativt. Diskussion och frågor i testsituationen var möjliga, enkätens frågor blev förstådda. Så är situationen också ofta vid undersökningar med hörande, personlig kontakt ger de bästa resultaten. I detta fall minimerades språkliga problem, vilket inte alltid är fallet vid forskning bland döva. Forskarna kan vanligen inte teckenspråk, det är tidsödande att använda tolk, video blir kostsamt. I den gjorda undersökningen var användningen av video inte till särskilt märkbar hjälp. Skulle en döv tecknare på video ha varit ett bättre val, eller är personlig kontakt det enda rätta sättet?

I sin fascinerande bok «Everyone Here Spoke Sign Language» (1985) berättar N.E. Groce om ärftlig dövhet på ön Martha's Vineyard. På ön finns så många döva att alla känner till teckenspråket, det fanns inga språkproblem, situationen var idealisk. Så är det sällan i Finland.

Hypotes ett verifierades: de döva som kontaktades personligen, eller som fick videokassett, returnerade sina svar oftare. Hypotes tva såg först ut att stämma, om man såg på medelvärden poäng för itemgruppen faktakunskap. Regressionsanalysen visade dock att metoden hade en mycket liten andel som förklaringsgrund när man betraktar de yttersta sidorna, skriftlig enkät och personlig kontakt. Personlig kontakt ser ut att vara det bästa sättet att få svar. Ännu bättre vore att de döva skulle få svara med sitt teckenspråk.

SUMMARY

A comparison of three methods for conducting the questioning of deaf people.

The deaf form a minority group. The sign language they use is not widely known outside the deaf community, thus creating a language barrier between the hearing society and the deaf.

Sign language is seldom used in research studies and this causes poor response rates and misinformation. In this study I wanted to test three different approaches when questioning deaf people: (1) the use of sign language in personal contact, (2) the use of sign language in videos and (3) written questionnaires. Sixty-three deaf adults participated, and it was found that the best way to obtain information was by personal signing, next came videos and, almost as effective written questionnaires. Sign language is therefore recommended in studies involving deaf people.

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Marjatta Takala

Comparison of Three Approaches When Questioning Deaf People

(Published in swedish in Nordisk Tidskrift för specialpedagogikk, 1993/4, 217-221.)

Abstract

When testing deaf people, written questionnaires are often used, sign language seldom. This can produce communication difficulties between the researcher and the target population. Still, the deaf form a language minority group, and they should have the right to be studied with their own language. The use of written questionnaires, questionnaires signed on video, and "live" signed questionnaires were tested. The personal contact produced the most answers, but the effect of the method was surprisingly very small.

Introduction

We have about 8 000 deaf people in Finland and 5 000 of them use sign language as their first language. The deaf form a language minority group. The sign language they use is not widely known outside the deaf community, and this creates a language barrier between the hearing society and the deaf, and very often between researchers and the deaf as a sample population. The language skills of deaf are usually measured with oral or written tests. These tests measure language skills as a function of the ability of the deaf to use oral languages, but not as a function of their ability to communicate through sign language (e.g. Lou, Fisher & Woodward 1987). By doing so, the language skills of the deaf seem to be very modest. Their reading ability and oral skills are reported to be rather poor (e.g. Cantwell & Baker 1987). After compulsory school the reading ability of deaf is often very low, approx. at the level of an eight-year-old child (Quigley & Paul 1984, Hakkarainen 1985). However, their reading strategy can be different from that employed by those who hear (Webster 1986). When the motivation to read is strong, many deaf people have quickly learned some special occupational terminology after completion of their formal education (e.g. Kyle 1985).

Writing is also difficult; the deaf are not accustomed to use written language functionally. They prefer not to write. If they write, the usual model is a subject-verb-object-sentence (e.g. Svartholm 1984, Webster 1986).

However, Bellugi (1989) has noticed that the visuo-spatial abilities of deaf four-year-old children can be better than those of hearing school children. As are oral languages, sign language is located mainly in the left hemisphere, and sign language thus gives visuo-spatial observations an abstract character. The signers have a good spatial-language-ability (Bellugi 1989, Sacks 1990).

Sign language has been widely accepted in Finland in the last ten years. It has been in the curriculum of compulsory schools as a subject of instruction for the hearing-impaired since 1987. Sign language and the oral language of the country have been kept apart on purpose e.g. in schools in Denmark and Sweden (The Curriculum for the Hearing-Impaired, 1987; Davis, 1991).

This article is part of a research consentrating on the view of society hearing-impaired adults have. This article discusses the methods how to collect data. In order to determine the view of society of deaf adults in Finland, knowledge, satisfaction, activity and attitudes were studied with the aid of four sections. Because written questionnaires might constitute a language barrier for deaf people, they were signed for half of the target population in a videotape.

The aim of this study was to test the hypothesis, that 1) the responding rate will be greater, and 2) the quality of answers will be better for those deaf people who were personally met or who received the questionnaire in video, in comparison to those who received only the written questionnaire.

Participants

A sample of 100 deaf adults was taken randomly from the register of the Finnish National Association for the Deaf. These people were congenitally or pre-lingually deaf, and they were at least 16 years old. This sample was randomly divided in two groups of 50 persons; the questionnaires were mailed in written form only to 50 persons and to 50 persons in written form and signed on a video cassette.

In addition seventeen (17) young deaf adults from the Finnish Folk High School for the Deaf were met personally. The sample was therefore comprised of these three sub-samples: "paper group", "video group" and "personal group"; the last group being most homogenous.

Method

The basic elements of the questionnaire were based on the the curriculum for social studies in the last year of compulsory school for the hearing-impaired. The level of knowledge and subject matter for questions were taken from this curriculum.

The questionnaire had five sections which were designed to elicit information about the view of society (Helve 1987, Niiniluoto 1984): 1) A background information section with 64 multiple-choice questions. 2) A section on the knowledge of society with 30 multiple-choice questions, maximum score being 91. 3) A section with 20 multiple-choice questions, about how satisfied the deaf were with the society , maximum score 60. 4) A section with 14 multiple-choice questions, about their social activity , maximum score 34. 5) A section about attitudes toward different people with 20 multiple-choice questions, maximum score 60. The questionnaire also contained four value-questions which people could answer freely and/or by choosing from given alternatives (in detail Takala 1993).

Response rate

Questionnaires came back differently from the three groups.

1) In the paper group 12 responses could not be accepted because the subjects were not pre-lingually or congenitally deaf. Two individuals sent empty papers back and 18 didn't answer at all. So the final paper group sample was 19 deaf adults, 7 women and 12 men; the mean age in the group was 48 years, SD 19.

2) In the video group 38 questionnaires came back, but only 27 contained answers to all or some questions. The final sample was 10 women, 17 men; the mean-age being 49 years, SD 13.

3) In the personal group all 17 answered at least two questionnaires. There were 14 women and 3 men; the mean age was 25, SD 8.

Table 1: The responses to the questionnaire

	paper group	video group	personal group
men	12	17	3
women	7	10	14
totals	19	27	17

The age and sex distributions of the non-responding subjects were similar to those in the final sample.

Signing

The background information section was considered the easiest and it was not signed. All other sections of the questionnaire were signed by a hearing interpreter in sign language rather than in signed Finnish. The researcher is also an interpreter, so the final signed version on the video cassette was a result of our discussions. The researcher signed everything the seventeen personally met students wanted to be signed.

Pre-test

The questionnaires were pre-tested in two schools for the hearing-impaired. An interpreter, who later signed all questionnaires, was participating with the researcher. Together seven deaf and six hard-of-hearing pupils from the upper stage participated in the pre-test. As a result of the pre-test some of the long, difficult words were removed and the text was simplified. Pupils also gave ideas how to sign the questions on the videotape.

Results

More signed questionnaires were answered than written ones. The response rate with the videos was 54 per cent, with questionnaires only on paper 38 per cent and those who were met personally 100 per cent.

Table 2: The responses to the sections

questionnaire	paper group N= 19	video group N= 27	personal group N=17
Background (not signed)	19	27	13
Knowledge	18	27	17
Satisfaction	18	27	17
Activity and Values	18	27	17
Attitude	15	22	16

The attitude section had a somewhat different structure than the others and that's why some left it empty. The knowledge questions measured real knowledge, so the scores can be compared.

Table 3: Scores from the knowledge section (max 91 scores)

paper group N=18		video group N=27		personal group N=17	
mean	st.d.	mean	st.d.	mean	st.d.
57	20	63	17	70	10

The personally met group performed best, probably because no communication difficulties were experienced, and they were the youngest, so they had not forgotten their school knowledge. Second was the video-group, as expected. The scores from other sections can't be compared, because they reflected activity- and satisfaction rate. If the question was difficult to understand, it would probably be left empty. These empty answers are interesting.

Table 4: Empty answers in the sections

section (number of questions)	paper group N=19	video group N=27	personal N=17
Knowledge (30)	3%	2%	0,2%
Satisfaction (20)	1%	2%	2%
Activity (14)	0,7%	0,6%	1,3%
Values (4)	32%	49%	7%
Attitudes (20)	48%	27%	18%

The personally met group left fewest empty answers. Writing was obligatory in value questions, and they seemed to be difficult for many. The attitude section was different in format and many people left it empty. The more difficult the section was, the lower the response rate.

Regression analysis gave different explanations for the parallel questionnaires.

Table 5 : The sections in regression analysis

	method* R^2	sex R^2	age R^2
knowledge	.09	.16	.14
satisfaction	.03	.11	.05
activity	0	0	.01

(* paper, video, personal)

When taking only the paper group and the personal group, the per cent amount of explanation increased 5%. The increase was not statistically significant in the satisfaction and activity sections, and the biggest increase was noted in the knowledge section (table 6).

Table 6: Knowledge section in regression analysis

	method* R^2	sex R^2	age R^2
knowledge	.15	.37	.18

(* paper, personal)

Discussion

The best situation was encountered in the group which was personally met. Discussion was possible and the questions were understood. This could, of course, be the case when questionning also hearing people. However, the usual language barrier in deaf research was now minimaized. The abilities of the deaf are often measured using the dominant language, because using sign language is difficult for researchers. It is also time consuming to sign everything, videos are expensive, and they had little or no effect in this research. Should the signer in the video be a deaf person or is personal contact the only right way?

In her charming book "Everyone Here Spoke Sign Language" (1985) N.E. Groce tells about hereditary deafness on Martha's Vineyard. The deaf population was so large that sign language was familiar to everybody, and the deaf were full members of society with no language barriers. Such is very seldom the situation in Finland.

Hypothesis one was verified: those who got the questionnaire personally and had the opportunity to ask anything they wanted, and those who got signed questions returned them more eagerly than others. Hypothesis two seemed at first to be true, when looking at the mean scores in the knowledge questions. However, regression analysis showed that the method didn't explain success or that it had a very small explanation percentage when looking at the extremities.

Meeting deaf people personally seems the best way to receive answers. An even better method might be to permit the subjects to sign their responses.

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ISBN 951-45-7004-9
ISSN 0359-4203
Hakapaino
1995