Research Article

Examination of Sign Language Education According to the Opinions of Members from a Basic Sign Language Certification Program

Pelin Piştav Akmeşe[1]
Ege University

Abstract

Being hearing impaired limits one's ability to communicate in that it affects all areas of development, particularly speech. One of the methods the hearing impaired use to communicate is sign language. This study, a descriptive study, intends to examine the opinions of individuals who had enrolled in a sign language certification program by using semi-structured interviews, a qualitative research technique. For this purpose, a semi-structured interview form was prepared and an expert's opinion was received; 190 participants who had completed or were continuing their sign language education were contacted. In the process of data collection, 30% of participants were contacted and interviewed face-to-face. Participants' opinions were divided into five main themes: their reason for joining sign language education, their determination of the place of sign language education in community life, the effect of sign language education in learning environments, examining sign language education programs regarding quality, and examining sign language education in regard to the qualifications of personnel and participants. The findings of this study are thought to be able to contribute to regulations regarding sign language education.

Keywords

Hearing impaired • Sign language • Communication • Sign language certification program • Awareness

1 **Correspondence to:** Pelin Piştav Akmeşe (PhD), Department of Special Education, Faculty of Education, Ege University, Bornova, İzmir 35040 Turkey. Email: pelinakmese@gmail.com

People as social beings need to communicate with those around them. They conduct a series of activities through different ways with the purpose of achieving communication in their daily lives. These activities show that the main factor that explains peoples' process of individualization is the need for communication. Communication is a goal that one determines to generate thoughts created in the mind similarly in other people's minds. Thoughts regarding a current need can be shared with an adjacent person without using oral speech (Erting, 2001; Erting, Kuntze, Thumann-Prezioso, Erting, & Bailes, 2002; Gongora & Farkas, 2009; Konrot, 2013). The main goal of communication attempts to create a projection of one's own thoughts in the mind of the targeted person by using the appropriate tool (speech, signs, writing) and a method through which the tool can be transferred (Goodwyn & Acredolo, 1993; Gongora & Farkas, 2009; Konrot, 2007). The term "language" is used in communication for the sharing of thoughts (Konrot, 2013). According to Bloom and Lahey (1978), language is "a systemic practice used for communication, symbolizing thoughts about the universe and consisting of agreed-upon symbols (codes)." During communication, thoughts are coded, transformed into shapes that the recipient can understand. Code is the representation of one thing with another. In addition to being audible, these codes can be visual or tactual (Bloom & Lahey, 1978; Konrot, 2007). Sign language as used by the hearing impaired is a whole and inclusive language with visual symbols created by the hands, fingers, head, face, mimics, and gestures in which all body movements are used (Armstrong & Wilcox, 2003). In sign language, every movement that is conducted is based on agreement and consistent with the description of language made by (Bloom & Lahey, 1978; Konrot, 2007).

Communication is a goal; language is a tool; and speech, signs, and writing are actions (Konrot, 2007). One important factor that affects the processes of interaction and communication is an individual's developmental characteristics and existing handicaps. Hearing is a main element of communication. Damage or injury to an ear, the organ of hearing, negatively affects communication skills and the ability to gain information from the environment through hearing. There are different degrees and types of hearing impairments, notwithstanding that it also affects every individual at different levels. Communication from the hearing impaired is affected by different variables, such as when the impairment was identified, the degree of impairment (Fitzpatrick, Crawford, Ni, & Durieux-Smith, 2011; Piştav Akmeşe, 2014), when a hearing aid or cochlear implant started to be used (Akın, Tezer, Şahin, & Akar, 2009; Piştav Akmeşe, 2014), one's level of education (Geers, Tobey, Moog, & Brenner 2008; Piştav Akmeşe, 2014), the language used by the family, and the family's socio-economic status (Boons et al., 2012, 2013). It is necessary to diagnose a hearing impairment early on, implement a hearing aid as soon as possible, and start education in order to enable hearing-impaired individuals to gain effective listening and speaking skills (Akın, Tezer, Şahin, & Akar, 2009; Boons et. al, 2013; Geers, Tobey, Moog, & Brenner 2008; Piştav Akmeşe, 2014). The basis of education

comprises a maximum level of listening. However, unlike their peers who can hear and show normal development, hearing-impaired children have different characteristics. Therefore, not every child who uses a hearing aid and receives verbal education can communicate verbally. It is necessary to determine the communication method and education system that the child will benefit the most from by taking the child's development into account and to teach formal sign language to children with low chances of acquiring spoken language skills in order to enable their self-expression (Belgin & Yücel, 2011).

Hearing-Impaired Individuals and Communication

Turkey is listed among countries in which hearing impairments are most often seen. Approximately 2,500 babies are born with hearing impairments every year in Turkey (Şahlı & Belgin, 2011). In addition to language, delays are also seen in the social, emotional, communicative, and educational areas of hearing-impaired children (Seeber, Baumann, & Fastl, 2004; Şahlı & Belgin, 2011). As the degree of hearing impairment increases, speech and vocabulary decrease, and literacy skills and academic success diminish (Diefendorf, 1996). Children with hearing impairments who could not be diagnosed by the time they were two, the most critical period for speech and language development, have lost the most essential time period for speech and language acquisition (Şahlı & Belgin, 2011). Different communication approaches in which visual clues are mainly used (Auditory-Verbal approach, lip reading, sign language, etc.) are used in the education of children who have been diagnosed at early ages, who cannot benefit from verbal methods, or who have additional problems (Estabrooks, 1994; Rhoades, 2006). As a result of reviewing the literature, the use of sign language has been seen to be effective in cognitive, social, emotional, and language development (Behne, Carpenter, & Tomasello, 2005; Felzer, 1998; Goodwyn, Acredolo, & Brown, 2000; Moore, Acredolo, & Goodwyn, 2001; Wallotton, 2008a, 2011).

When reviewing studies conducted on hearing-impaired individuals and those in direct communication with them at various ages and areas, hearing-impaired children were stated to be able to understand words when sign language was used at 15-months old, and were able to form longer sentences by the age of 2; the difference in their understanding and use of verbal language with their peers was notably low at the age of 3 (Goodwyn et al., 2000). In a study which examined the communication preferences of high school students, out of 13 students (11 of whom were hearing impaired by birth and 11 of whom regularly used a hearing aid), 8 students had complete communication; hearing-impaired students preferred sign language amongst themselves and had difficulty communicating outside of school, trying to use speech, lip reading, and writing in their general communications (Parlak, 2011). In the same study, 32 teachers who worked in high schools for the deaf were stated to use sign language in nearly 100% of their communications with students (Parlak, 2011).

In a research which examined sign-language use in the work environment, in a factory in which 156 hearing-impaired individuals worked, 67 individuals were stated to use sign language, 11 to use lip reading and writing, and 36 to have complete communication with their colleagues (Parlak, 2011). In another study where the communication preferences of the hearing impaired were examined in different environments and with different people in their daily lives, 70-75% of hearing-impaired individuals who had been born with severe or profound hearing loss were stated to prefer sign language in their daily lives; less than 10% of these individuals used verbal communication in certain situations (Gürboğa & Kargın, 2003). The results of the literature review showed that the most frequently preferred communication method in adulthood of individuals educated in schools for the deaf was sign language.

Educational regulations, including communication types (sign language, lip reading, and writing) for all hearing-impaired are necessary to increase their participation in community life and to solve the problems they face in their professional life (Kemaloğlu, 2014a). Additionally, the rights of people with disabilities are explained in Turkey's Constitution in Articles 42 and 61: "No one shall be deprived of the right to education. The state shall take necessary measures to rehabilitate those in need of special education so as to render such people useful to society," and "The state shall take measures to protect the disabled and secure their integration into community life," respectively. Educational regulations which have been executed in accordance with this legal process aim to increase the participation of people with disabilities in their community as a result of a more qualified education and increase in their quality of life.

Sign Language and Its Usage

Every country and every region in the world has its own sign language. These sign languages differ from each other structurally in terms of phonology, syntax, vocabulary, and grammar (Arık, 2013; Fischer & van der Hulst, 2003; Wilbur, 2003; Konrot, 2007). British Sign Language (BSL), American Sign Language (ASL), Australian Sign Language (AUSLAN), and Canadian Sign Language (CSL) differ from each other as do their native languages. The linguistic characteristic of each is unique. As in spoken languages, factors in sign languages such as which gestures will be used, organizing chosen signs according to a certain order, and the meanings of consecutive movement groups are shaped as a result of cultural agreement (Konrot, 2007).

Interest in sign language has gradually increased both in the world and Turkey. The establishment of the Sign Language Linguistics Society in 2004 and the release of the international Sign Language and Linguistics Journal in 1998 and Sign Language Studies Journal in 2000 can be shown as examples of this progress. Gallaudet University in the USA, Amsterdam University in the Netherlands, Hamburg University in Germany, and Jyväskylä University in Finland have opened post

graduate and doctoral programs focusing strictly on sign language studies (as cited in Arık, 2013).[2] Sign language studies were begun at the turn of the new millennium in Turkey, and a dictionary of Turkish Sign Language (or *Türk İşaret Dili* [TID] in Turkish) was released by the Turkish Language Society in 2005 (Arık, 2013).

Studies on sign language can be said to have increased in number in Turkey over the past ten years. The legal regulation that has provided the basis for these studies and drawn the most attention is Article 15 of Law No. 5378 on People with Disabilities in 2005. According to Article 15: "The Turkish sign language system has been formed to enable education and communication for hearing-impaired individuals."[3] Turkish Sign Language was declared a language and has started to gain support. It is a language used by the hearing impaired as a unique creation of theirs and as a means of communication with unique grammar and pragmatics, because correspondence in spoken Turkish tends to decrease as the intended subject becomes more complicated (Aslan-Demir, 2010). In addition, Turkey has been a party of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) since 2009. The point emphasized by admitting the UNCRPD into the national legislation is that disabled individuals are equal citizens and all public institutions are obliged to provide equal opportunities and services to the disabled. One of the most significant obligations this convention has brought to life is the need for making sign language accessible not only as a means of education, but also as a language of public service (Kemaloğlu, 2014a).

As the gap between the functionality of individuals with disabilities and what society can provide them with decreases, impaired individuals have equalized opportunities and rights derived from being a human and a citizen. In Article 3 of the UNCRPD, communication and language are defined as follows:

> *Communication* includes languages, text displays, Braille, tactile communication, large print, and accessible multimedia, as well as written, audible, plain-speech, and voice-read augmentative and alternative modes, means, and formats of communication. *Language* includes spoken and signed languages, and other forms of non-spoken languages (UNCRPD, 2006; Convention on the Rights of the Disabled, Council of Ministers' Decision [CRDCMD], 2009).

An individual who is lacking one function is expected to be able to communicate using other abilities (for example, a hearing-impaired individual can use sign language (Campbell, MacSweeney, & Waters, 2008; Kemaloğlu, 2014a). It is extremely important that individuals who cannot hear or speak but who can use sign language fluently qualify as individuals whose language is impaired and can benefit from opportunities just as other people but with a different native language defined by the level of impairment.

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2   http://www.slls.edu

3   http://www.mevzuat.gov.tr/MevzuatMetin/1.5.5378.doc

Clause (e) of Article 9 of the UNCRPD (titled *Accessibility*) says to "…provide forms of live assistance and intermediaries, including guides, readers, and professional sign-language interpreters to facilitate accessibility to buildings and other facilities open to the public" (UCRPD, 2006; CRDCMD, 2009). Providing active services to the disabled at the same level as normal individuals in terms of access to public services is a legal obligation.

The most important point emphasized by the UNCRPD in the context of the hearing impaired can be seen as sign language. Statements under the headings of *Language*, *Accessibility*, and *Education* state that education and public services in sign language are one of the most significant duties of the state. Articles 21 and 30, *Freedom of Expression and Opinion and Access to Information* and *Participation in Social Life, Recreation, Leisure, and Sport* respectively, qualify sign language as a freedom of expression and a cultural asset. One of the most important points emphasized by the UNCRPD is that the disabled are in a position where they can seek their rights, demand, and make decisions about life with free and informed consent, on their own, as active members of society (UNCRPD, 2006; CRDCMD, 2009).When the related articles are evaluated as a whole, UNCRPD can be concluded to approach sign language as a native language, and accessibility and visibility in society are handled within this context. According to the Turkey Disability Survey (2005), less than 15% of disabled individuals participate in the labor force (as cited in Kemaloğlu, 2014b), and a majority of them (70-75%) prefer sign language in their private life (Gürboğa & Kargın, 2003).

Turkish Sign Language is used in every kind of social and educational activity in hundreds of associations and sports clubs across the country within the scope of Turkish National Federation of the Hearing Impaired (or *Türkiye İşitme Engelliler Milli Federasyonu* [TİEMF] in Turkish), education is provided and studies are conducted to popularize sign language (Kemaloğlu, 2014c; Kemaloğlu & Kemaloğlu, 2012). Turkish Sign Language is used as a common language and understood in all parts of Turkey, albeit with some local differences (Kemaloğlu 2014a, 2014c; Yetişkinler Için Işaret Dili Kılavuzu [Turkish Sign Language Guide for Adults], 1995). Turkish Sign Language has recently begun being used in special education schools for the deaf and special education preschool courses affiliated with the Ministry of National Education. There haven't been any programs that teach Turkish Sign Language at universities in Turkey, but it has begun being added to hearing-impaired teaching programs and some undergraduate programs as an elective course as of 2013 (Kemaloğlu, 2014c).

Parallel with developments in the world, an increasing continuance of regulations regarding education, health, social, and other rights of disabled individuals have been

attracting notice in Turkey. Preparation of the Turkish Sign Language alphabet and studies regarding its use are among these regulations (Kemaloğlu, 2014a, 2014b, 2014c). Auditory verbal education has recently been widely used, parallel with the increase in early diagnosis and hearing-aid usage practices for the hearing impaired (Hayes, Geers, Treiman, & Moog, 2009). However, hearing-impaired individuals can be seen who do not sufficiently benefit from early diagnoses or auditory-verbal education opportunities and have been educated in schools for the deaf where sign language was used in nearly 100% of their communications (Parlak, 2011). The up-to-date use of sign language has been important in increasing the quality of communication with hearing-impaired individuals and in including these individuals in society (Kemaloğlu, 2014a). At present, sign language includes a process ranging from basic sign language to sign language training and interpreting.

This study intends to examine the opinions of individuals who have enrolled in basic sign-language certification programs related to sign language education. The findings of this study, conducted based on the opinions and experiences of individuals who had finished or were still continuing the Basic Sign Language Course as organized by the Ministry of National Education's Directorate of Life Long Learning, are thought to be able to contribute to sign language education programs and the implementation process.

Purpose

The purposes of this study are to define the opinions of 190 individuals who had enrolled in a basic sign language certification program related to sign language education, to state their experiences about sign language education programs by taking education programs for adults into account, to determine the problems faced during this process, and to submit suggestions based on these situations. In accordance with these purposes, answers to the following issues were sought:

1. What are the opinions of individuals enrolled in basic sign language certification programs as related to their reasons for enrolling?

2. What are the opinions of these individuals as related to the place of sign language education in society?

3. What are the opinions related to its effect in learning environments?

4. What are the opinions as related to the quality of sign language education programs?

5. What are the opinions as related to sign language education practices in terms of personnel and participants' characteristics?

Method

This study, which aims to examine the opinions of 190 individuals enrolled in basic sign language certification programs related to sign language education, has been performed as a qualitative research using a descriptive design. The most frequently used techniques in qualitative researches are observations, interviews, and document analyses. In researches using the interview technique, a process is conducted with the intent of revealing events related to participants' perceptions based on a holistic view (Creswell, 2005; Öktem, 2005; Yıldırım & Şimşek, 2011). In this regard, the current study has been conducted using the interview technique from among the qualitative research methods (Akay, Uzuner, & Girgin, 2014; Bogdan & Biklen, 2007). In semi-structured interviews, the researcher prepares questions to be asked in a particular order, and then asks the participants these questions in the same order. Participants express their opinions, adding details as they wish. During the interview, the researcher may skip questions whose answers are received while the participant was responding to a different question; additional explanations can be made to participants as needed (Akay et al., 2014; Bogdan & Biklen, 2007; Ergenekon, 2007; Yıldırım & Şimşek, 2011).

Study Group

The study group of the research was determined in accordance with the maximum variation and criterion sampling methods from among the purposive sampling methods (Yıldırım & Şimşek, 2011). In determining the study group, two main criteria (being a willing volunteer and having completed or currently attending a sign language certification program in an education institution) were taken into account pursuant to criterion sampling. The purpose of maximum variation is to determine if common or shared features exist between various situations and to state the issue from different perspectives. When viewed from this aspect, having 190 individuals who had completed or were completing a sign language certification program in the research was accepted as a convenient criterion for maximum variation.

Accordingly, 190 individuals who had either completed the basic sign language certification program (120 hours) in 2014-2015 or were still attending it (in the last 20 hours of the program) participated in the research. For this purpose, research data was collected from the demographic information form included in the semi-structured written interview and from the questions that had been prepared to determine opinions about sign language education. While 30% of the participants (57 individuals) were interviewed face-to-face and answered the written interview form, the others delivered their data via e-mail. This research was conducted by asking the participants 21 questions in the same order that had been determined by the researcher beforehand and by giving them the opportunity to answer the questions with as much detail as they wished.

Table 1
Demographic Information of the Participants (n: 190)

	Mean ± SD	Min. - Max.
Average of age	29.28 ± 9.95	(Ages 18-59)
Gender	F	%
Female	159	83.7
Male	31	16.3
Completion of education status		
Completed 120-hour education	152	80
Completed the first 100 hours of the education	38	20
Education Level		
Undergraduate	67	35.3
Postgraduate student	6	3.2
Job Status		
Working in a regular job	76	40
Not working	41	21.6
Sign language education information source		
Via a friend	96	50.5
Via institution advertisement	24	12.6
Via social media	35	18.4
Via office he/she works in	35	18.4
Areas participants continue their education or work in		
Health sciences	62	32.6
Educational sciences	33	17.4
Commerce/engineering/architecture/law	21	11.1
Other	74	38.9
Reason for joining the training		
Work with the disabled	37	19.5
Acquire a profession	13	6.8
Contribute to career development (for use in professions like teacher or doctor)	47	24.7
To socially communicate with deaf relatives or family members	24	12.6
Personal development	69	36.3
Reason for using sign language at the end of the education		
For use in professional life (teacher/doctor...)	77	40.5
To acquire a profession (sign language teacher or interpreter)	23	12.1
For use in interactions and volunteer work in society	86	45.3
For communicating with family and friends	4	2.1
How many hours should an ideal sign-language education take?		
120 hours is sufficient	113	59.4
Less than 120 hours	67	35.3
More than 120 hours	10	5.3
Is there a hearing-impaired individual in the family or close environment?		
Yes	34	17.9
No	156	82.1
Level of closeness with the hearing-impaired		
Parents or immediate family	8	4.2
2nd or 3rd degree relative	14	7.4
Friend or neighbor	12	6.3
The amount of need for additional training at the end of the class		
Yes, I need	83	43.7
No, the course is sufficient	107	56.3
Suggestions on how future education should be planned		
It should be repeated at regular intervals with the same participants	70	36.8
Courses should be held with less participants with practical applications and an increase in course hours	86	45.3
Hearing impaired individuals should join the education	34	17.9
Thoughts on the relation among learning, sign language usage, and age		
It should be learned in childhood, period.	36	18.9
Every citizen in society should experience sign language education	154	81.1

The demographic information of the participants collected from the form included the age, gender, education level, and job status of the participants; how they heard about sign language education; how they will use the certificate when they complete the sign language program; opinions about the time spent on the education; if they know a hearing-impaired person in their close environment and the level of closeness; their need for a course, workshop (short-term education), or different training for using sign language as an effective way of communicating in community life; and opinions on the relationship between sign language usage and age. The demographic information of the participants is listed in Table 1.

As shown in Table 1, a majority of the participants, whose average age ranged between 18 and 59, were women (83.7%). Of the 190 participants, 80% (152 individuals) had completed the 120-hour training and 20% had less than 20 hours before completion; 35.3% had at least graduated from high school and were continuing their undergraduate education while 40% had a regular job. The sign language education course was found to be most frequently announced by friends (50.5%); social media advertisements (18.4%) came in second. Participants most frequently worked in the field of health sciences (32.6%), followed by educational sciences (17.4%). When examined in accordance with their reason for joining sign language education, they stated that it would contribute to their career development (24.7%) and that they wanted to work with disabled individuals directly (19.5%). In addition, their thoughts about the purpose for using sign language after training were for using it in social life interactions and volunteer jobs (45.3%). When asked what expectations they had from this process and what suggestions they had for the program if they were to attend a future sign language training class, many participants stated that courses should be conducted with fewer participants, must certainly provide practical applications, and course hours need to be increased (45.3%). In addition, 18% of the participants were seen to have a hearing-impaired individual in their close environment (4.2% in the immediate family, 7.4% as a second or third degree relative, and 6.3% as a friend or neighbor). While a large majority of the group (81.1%) stated that every individual in society must have sign language education experience, they pointed out that the same participants should repeat training at regular intervals (36.8%).

This study aims to examine the opinions of individuals enrolled in a basic sign language certification program related to sign language education. The findings of this study are thought to be able to contribute to sign language education programs and their implementation process.

Data Collection Instrument

The data of the research was collected using the interview technique, which is frequently used in qualitative research (Bogdan & Biklen, 2007; Creswell, 2005;

Yıldırım & Şimşek, 2011). Qualitative studies have a data collection process based on in-depth examination of small groups with a strong participant effect. To state questions more effectively, an expert's opinion must be received from people experienced in the relevant field (Ergenekon, 2007).

This study's researcher, who has been working as an academic member, is an audiology and speech disorders specialist with a doctorate in special education and has done applied and clinical work in diagnosing, rehabilitating, and educating impaired individuals. The researcher has also given lectures on sign language, language development in children, pediatric audiology, body language, effective communication, providing communication skills regarding different impairment groups, special education, and inclusive education. While preparing the semi-structured interview form, the researcher first closely examined the related literature. Next, a draft form was prepared which included open-ended questions that examined sign language and its usage; support for impaired persons' communication skills; inclusion of the hearing impaired in society; professional features of sign language educators, sign language education programs, and expectations from these programs; equipment and materials used during the program; post-education evaluations; and results. To validate the researcher's interview form, it was submitted to three specialists from three different fields for review and restructured according to the corrections and suggestions received. One of the specialists was an academician of the Turkish language who evaluated the questions in terms of comprehensibility and diction. Another specialist had been continuing her doctoral education in the field of special education and working as an academician for 13 years. She had taught in inclusive classes for six years and worked in the fields of inclusion, teacher training, special-needs education, ethics, and teacher proficiency within the body of higher education for seven years. She had been a Without Barriers student coordinator in a state university for five years, attended doctorate-degree courses on qualitative research techniques for a year, and conducted studies based on the interview technique. She gave support to the questions that were based on her experiences, which include the disabled in social life, expectations from sign language education programs, participant tendencies, and initiatives regarding sign language in higher education. The last expert had been teaching sign language education for 15 years; had been invited to give speeches in seminars, workshops, and education programs on hearing-impaired individuals and communication; and had proficiency in preparing, executing, and recording education results in sign language certification programs.

Data Collection Process

The final interview form was applied through face-to-face interviews with 57 participants and through e-mail for the remaining 133 participants. The literature states

the necessity of observing principles such as clarity, writing a variety of focused, open-ended questions, avoiding instruction, and arranging questions logically (Ergenekon, 2007). The researcher prepared the questions in accordance with these principles. Mutual communication was enabled by telephone or e-mail with all research participants, and they received the data collection tool by e-mail; the researcher gave explanations regarding the subject. Participants were particularly informed about the data collection process and work program that includes a period of analysis. The research was conducted in İzmir in 2014 and 2015 through a sign language education institution certified by the Ministry of National Education where the field specialists worked. This education institution has institutional competency with regard to physical and social opportunities and conducts officially certified education programs. Participants were chosen on a voluntary basis among individuals registered in the basic sign language education program. Face-to-face interview sessions were conducted individually with the participants; as such, the physical opportunities of the units in which they were continuing their education were used. First, informative messages were sent by e-mail to the participants who had been reached; upon confirmation, the questionnaire form was sent to them for completion. The interview form used in the research was prepared in accordance with their contact information: place, date, hour, subject of focus, person of focus, interviewer, interview number, page number, total number of lines, descriptive data index, interviewer comment index, and page comment index. The researcher checked the recorder and other equipment such as notebook, paper, and pencil for taking notes; she then made a practice run before beginning the face-to-face interview. She examined the setting that would be used during the interview in terms of sound, light, and other physical conditions. At the beginning of the interview, she made an introduction speech to the participant and stated the date and time, explained the purpose of the research, and stated that participants' opinions would be used for scientific purposes and analyzed through a given code name pursuant to the codes of conduct. She was careful that the interview process, interaction process, and participant were comfortable and secure. The interview was prevented from turning into a questioning process by forming unbiased and empathetic interactions. After 30-45 minutes of interviewing a participant, the researcher then thanked them and concluded the interview.

Data Analysis

As the purpose of the research was to examine the opinions of participants enrolled in a basic sign language certification program about sign language education, their perceptions and expressions were used as a baseline. Descriptive analysis was conducted to analyze findings that reflected participants' opinions in detail as a whole. Descriptive analysis consists of participants' answers for each question with the aim of stating the similarities and differences among these answers (Bogdan & Biklen, 2007). Therefore, preparation, organization, and reporting stages are pursued in data analysis by taking into account a conceptual frame of the research and research

questions. Data analyzed in these stages are converted into findings by transforming them into themes where conceptual structures and data are rendered into qualitative categories (Elo & Kyngas, 2008).

Preparation stage. Findings that reflected the opinions of individuals from the basic sign language certification program were obtained by analyzing the written statements of each participant. The written interview forms that had been received from the participants were put into writing in sections (descriptive index, descriptive data, interviewer comments, and page comments) from the detailed interview form by giving a coded number to each participant (i.e., P1). After the data was transferred to an electronic environment, the analysis stage was conducted. An online data list was made from the 190 participants' demographic information and answers to the questions from the interview form.

Organization stage. In this stage, the researcher first formed a conceptual framework by taking the research questions into account and deciding under which themes and categories the answers would fall, using the conceptual framework as a guide. Thus a holistic analysis could be made. The data that had been transferred to an electronic environment was organized and rendered by gathering similar data under specific concepts and themes. Primarily, the descriptive listed data were coded. The data obtained were matched under the related interview question in groups. In this stage, the researcher approached the interview questions as main themes.

Reporting stage: In this stage, the researcher made assessments together with the specialists, attempting to comprehensibly submit sub-themes and main themes. The specialist with a doctorate-level education on qualitative research methods and techniques had performed descriptive analysis studies, worked as an instructor in the field of special education, and gave support in the reporting stage; together with the researcher they consolidated codes which were then turned into themes. The obtained data was transferred into qualitative statements, and their percentages were calculated. The main purpose in this stage was to reach concepts and relations that could explain the gathered data. The researcher and specialist wrote findings by directly citing participants' opinions to increase persuasiveness and enable validity. A study that contributes persuasiveness also makes the subject better understood (Creswell, 2005; Yıldırım & Şimşek, 2011). Processes performed by the researcher to enable validity and reliability include receiving specialist support to state the findings as completely the opinions of the participants, objectively and without bias. For this purpose, she transformed the data list into writing into sections (descriptive index, descriptive data, interviewer comments, and page comments from the interview form).She received written and oral approval on the agreement form from 30% of participants who had been interviewed face-to-face. The researcher, who had gathered

data through e-mail for the remainder of the participants, contributed to the validity of the research by obtaining written voluntary consent forms. To ensure reliability, calculations were made for repeatability and intercoder reliability. A high intercoder-compliance percentage shows a high scoring reliability. Therefore, the obtained themes and sub-themes were submitted in the last step of the reliability stage to the review of two specialists who had good communication skills, training for hearing-impaired individuals, and knowledge of language speech disorders, special education, and qualitative research; intercoder reliability analysis was performed on the sub-themes obtained (Creswell, 2005; Yıldırım & Şimşek, 2011). In this process, the reliability formula of Miles and Huberman (Reliability = [Agreement / (Agreement + Disagreement)] * 100; 1994) was utilized and intercoder reliability was found to be 92%; as a result, the research was accepted as reliable. The themes and sub-themes developed as a result of the data analysis are shown in Table 2.

Table 2
Themes and Sub-Themes Developed as a Result of Data Analysis

	F	*%*
1. Opinions about the reasons for participating in sign language education		
1.1. Sign language education as an educational need	31	4.9
1.2. Sign language education as an element of language usage and confidence	30	4.7
2. Opinions determining the place of sign language education in community life		
2.1 Sign language education as an effective element in social life	178	28.34
2.2. Sign language education as an element for creating awareness	165	26.27
3. Opinions of the effect of sign language education on learning environments		
3.1. Academic support	15	2.38
3.2. Educational regulations, course content, and material use	23	3.66
4. Opinions on examination the quality of sign language programs		
4.1. Competency of service of sign language programs	28	4.45
4.2. Examining its professional status	22	3.50
5. Opinions examining sign language education in terms of personnel and participant qualifications		
5.1. The effect of instructors and participants' communication skills on sign language education programs	136	21.65
TOTAL	628	100%

As stated in Table 2, five main themes were developed as a result of the data analysis. Under Theme 1 (reasons for participating in the training), two sub-themes were created: opinions on sign language education as an educational need, and language use and confidence. Theme 2 (the place of sign language in community life) consisted of two sub-themes: opinions on the sign language education as an effective element and as an element for creating awareness. Theme 3 (sign language training's effect on learning environments) also had two sub-themes: opinions on the dimension of academic support, and opinions on educational regulations, course content, and material use. Theme 4 (the quality of the program) included two sub-themes: opinions on the competency of service from sign language education programs, and

opinions examining its professional status. Theme 5 (sign language training in terms of personnel and participant qualifications), which was the final theme, consisted of one sub-theme: opinions on the effect of instructor and participants' communication skills on sign language education programs.

The frequency and percentages for the categories in Table 2 were calculated by taking into account participant opinions that defined one or more theme. In this regard, the opinions of 190 participants on sign language learning and how to use sign language when communicating with impaired persons; the perception of society towards sign language; and opinions on how to, who should, and where to organize sign language education were collected under five main themes and 628 occurrences (frequency). Percentages calculated for each sub-theme showed that the theme related to sign language education was most frequently stated in the opinions; the lowest percentages were shown related to opinions and suggestions about sign language education according to the other themes. In Table 2, under the main theme opinions on determining the place of sign language education in community life, 178 of 190 participants stated opinions on sign language education as an effectiveness element in social life, while 165 stated opinions on sign language education as an element of creating awareness. In Theme 4 (examining sign language training in terms of program quality), 136 participants stated opinions about the effect of instructors and participants' communication skills in sign language programs. In the sub-dimensions under this theme, 28 participants stated opinions about the competency of service of sign language education programs, and 22 participants stated opinions about its examination as a professional status. A number of participants stated that it would support their professional status (Sub-dimension 4.2) while providing opinions for Theme 3 (the effect of sign language education in the learning environment); 15 participants assessed Sub-dimension 4.2 within Sub-dimension 3.1 (academic support). As a result, this indicated that they thought sign language education contributed to learning environments and their professional status.

Findings

Participant opinions were cited by coding them without using their names as per the privacy policy. In this regard, individuals who had enrolled in a basic sign language certification program were coded *P*, and every participant was numbered with their code letter. In this part, questions from the interview form were classified according to sub-questions and findings were submitted. Based on the research findings, five main themes were created: reasons for enrolling in sign language education, the place of sign language education in social life, the effect of sign language education in learning environments, examining the quality of sign language education programs, and examining sign language education in terms of personnel and participants' characteristics.

Participant answers have been quoted under each theme. The themes obtained as a result of content analysis regarding the questions are shown in Table 2.

A total of 628 participant opinions described in sub-categories as a result of data analysis consisted of five main themes. Two sub-themes were determined for Theme 1: the educational need for sign language education, and language usage and confidence. Two sub-themes for Theme 2: sign language education as an element of effectiveness, and creating awareness. Two sub-themes for Theme 3: academic support, and educational regulations, course content, and material use. Two sub-themes for Theme 4: sign language education programs competency of service, and examining its professional status. Just one sub-theme for Theme 5: the effect of instructor and participants' communication skills on sign language education programs. In this regard, the research findings consist of five main themes and nine sub-themes.

Participants who stated opinions for at least one or more of these themes stated opinions on the contents that they thought were relevant. For example, while P19 expressed the need for education with the opinion "… I encountered a hearing impaired person. He asked me something but I couldn't understand him and got angry with myself. So I decided to enroll." The same participant stated his opinion under the awareness theme by saying "If I am human, there shouldn't be a barrier between us."

Issue 1

What are the opinions of individuals enrolled in a basic sign language certification program related to their reasons for joining the sign language education program? In accordance with this issue, the questions on the interview form were as follows:

> (Q-4) How did you decide to learn sign language? State your reason, and (Q-7) What do you think is the great interest in and demand for sign language nowadays? Do you think this should be a precondition for joining the course?

Statements that included participants' opinions differed regarding their reasons for enrolling in sign language education. They generally stated how they had heard about the sign language education program, their reasons for enrolling, what they thought about the interest in and demand for sign language education.

Reasons for participating in sign language education.
a). Sign language education is an educational need. When considering participants' answers for what they thought of the attention and demand for sign language education nowadays, some thought there was a huge demand from every segment of society (P7, P17, P26, P38, P54, P92, P111, P122, P123, P133, P162),

while many thought that sign language didn't get the attention and demand it deserves (P12, P13, P18, P19, P21, P31, P59, P82). Participants who marked that a graduated certificate of competency should be issued for the instructors (P38, P41, P47, P48, P52, P73, P77, P94) stated that sign language instructors' competency should be determined by taking into account their training level at primary, secondary, and progressive stages with set criteria (P105, P109, P112, P155, P157).

Participants argued that individuals attending especially basic level training should prove a particular competence level at the end of a monitoring- and proof-based process (P140, P144, P147, P155, P157); others stated that these suggestions could improve sign language studies (P6, P8, P11, P130, P136, P137).

Participants who stated that the prerequisites for course participation should not be too restrictive suggested that there should be separate competences for those who want to use sign language as a profession and those who learn it to communicate with hearing-impaired individuals in their family, social life, or professional life (P3, P4, P14). Participants who described many affective and social features such as education level, intellectual perspective, media and communication skills, patience, tolerance, being open to change, problem solving, communication, and respect in interpersonal relations emphasized that individuals who would become sign language instructors must definitely be examined with assessment and evaluation methods (P28, P29, P30, P32, P35, P36, P39, P94). Examples of related participants' statements for educational needs are as follows:

- "Language is learned by experience" (P97).

- "I mean, practicing is so significant for learning a language" (P102).

- "You know the rules, words, equivalent of the words in sign language, etc., but if you don't practice them in the environment, you forget them in the long run. So sign language instructors should have different evaluation processes and their competence should be clear" (P21).

- "Taking into account the number of hearing-impaired individuals, I wanted to help them by learning sign language; that made me join the sign language course" (P29).

- "I am closely acquainted with their problems because I have an impaired relative. So I want to be with them and help them" (P6).

- "... I encountered a hearing impaired person. He asked me something but I couldn't understand him and was angry with myself, so I decided to start" (P7).

- "I know this language, but my technical information was incomplete. I decided to help my family in this field. It is primarily used for mother-child communication" (P8).

- "My desire to learn sign language was formed by a film I had watched about the disabled, but the main reason to learn this is to be able to make a difference in every profession" (P11).

The number of participants who had attended the course for better quality communications with a hearing-impaired close relative or friend was followed by those who had enrolled in the course to gain competency in the field of professional development. On the other hand, there were also participants who had stated that interactions in social media and community life needed sign language:

- "I watched a film about sign language. Although there were many hearing-impaired people, I realized that we didn't try to understand them, so I attended the course" (P158).

- "I saw it on Okan Bayulgen's TV show and was impressed. I want to enjoy communicating with them" (P18).

As can be seen, many of the participants enrolled in the training willingly and purposefully, wanted to communicate based on interactions by defeating individual differences, thought that it would contribute to their communication competence and professional development, and thought it would make the lives of impaired individuals easier.

b). Sign language education is an element of language usage and confidence. Participants who mentioned competence features in language rules and effective use of language stated that individuals who effectively used the language had confidence in oral and written communications (P17, P19, P47, P49). Especially when looked at from the viewpoint of sign language, participants criticized that the meanings of signs differed in different cities and regions, and they stated that the related ministry and professional competency boards and federations should perform studies on sign language usage and make its use widespread. Participants who pointed out that the Turkish Sign Language is prepared as an alphabet and images emphasized that this situation has a positive contribution. However, the instructors responsible for the standards of the sign language education institution and the teaching of this language should generally receive a common education (P76, P77, P80, P86, P87, P93, P95, P113, P119, P120, P124, P127, P146, P152).

Participants who emphasized that the communication skills of the instructors were of great significance thought that the instructor should not use regional language, have strong communication skills, have an attitude based on tolerance and respect, and generally be pre-educated on teaching Turkish (P32, P33, P45, P46, P56, P67, P89, P90, P91, P92, P93, P94, P100, P101, P102, P103, P112, P114, P115, P116, P121, P129, P130).

They stated that instructors with competence in teaching and using the language effectively can communicate with people attending the course in a more qualified way;

they can teach sign language with a *you-can-do-it* approach. In this regard, participants who criticized that Turkish Sign Language did not have standards stated this was a big deficiency (P1, P4, P15, P46, P50, P51, P54, P56, P74, P78, P107, P125).

Issue 2

What are the opinions of individuals enrolled in the basic sign language certification program related to defining the place of sign language education in community life? The questions in accordance with this issue are as follows:

(Q-2) What do you think about the importance of speech in communication? When they want something, how do you first communicate (orally, with gestures, facial expressions)? (Q-5) Do you think sign language is an effective way to communicate? Explain your answer. (Q-10) What do you think is the importance of knowing and using sign language actively in daily life?

The participants stated that they wanted to effectively use sign language in their social life. They thought that it could be advantageous, that they could communicate with more individuals, and that it would especially contribute to their professional life.

The place of sign language in community life.
a). Sign language education is an effective element in social life. Quite a few research participants stated that knowing and actively using sign language would be an advantage for them in community life (P2, P3, P4, P5, P8, P9, P10, P11, P12, P13, P14, P15, P34, P35, P45, P56, P57, P68, P69, P70, P71, P72, P111, P112, P113, P114). Participants who said "To be the one who starts communications in social life and knows the method of communication the other individual uses provides confidence," thought that beginning and continuing to develop the communication skills of those who know sign language would be supported in an environment where hearing-impaired individuals exist, and this would improve their self-confidence (P21, P22, P23, P24, P43, P48, P61, P62, P63, P68, P74, P80, P81, P82, P83, P84, P85, P86, P87, P88, P89, P90, P91, P113, P114, P152). Some participants who used *instrument* as a metaphor for language usage stated that having different methods of communication is freedom.

Participants who thought that sign language usage increased social participation in community life drew attention to another important subject by stating that making sign language usage widespread would increase the employment of hearing-impaired individuals in public and private enterprises (P2, P3, P8, P14, P24, P26, P27, P28, P32, P35, P36, P40, P43, P50, P51, P52, P53). Participants who stated that hearing-impaired individuals were not employed because of the difference in their communication skills (P28, P29, P55, P79, P85) shared similar opinions by saying:

- "... In simplest terms, you can place an order by saying I would like two cups of tea to a hearing-impaired employee, it is a real achievement and everybody should learn it" (P85).

- "... A social life in which there is no discrimination or alienation, and equal opportunities are created for hearing-impaired individuals can be enabled by wide-spread sign-language usage" (P28, P54).

- "....You can enable an impaired citizen to feel unimpaired" (P20).

In this regard, participants who had emphasized that there should be different areas of employment for instructors and sign language interpreters to make sign language widespread thought that sign language contributed to individuals without hearing impairments as much as those with hearing impairments (P20, P54, P55, P58, P119, P120).

- "To include those excluded from life in living again and to feel this happiness are great advantages and make things easy for both you and others. While we can pay our bills easily, they face difficulties we cannot even imagine. When we actively use sign language, this prevents feelings of alienation in community life, and nothing can be more beautiful than that" (P150).

- "Knowing a language means a different world on its own; you add a visual quality to that in sign language. The hearing-impaired can be happy when they see you" (P68).

They stated that it is really important to know and actively use sign language in terms of integrating both themselves and the hearing-impaired into society and community life (P142, P147, P150, P152).

b). Opinions on sign language education as an element of creating awareness. Research participants drew attention to the rareness of social interaction in social communications (P152) and thought that they understood people with different needs better when using sign language (P147). Generally, participants thought that the quality of a hearing-impaired person's communication process doesn't only concern them (P21, P24, P146, P149, P149, P152, P155, P170). Their family, children, and immediate environment should contribute socially to them (P21, P22, P24, P36, P37, P136, P137). They emphasized that individuals without hearing impairments should know and use sign language when considering that hearing-impaired individuals use sign language actively beginning with preschool and primary school (P2, P7, P8, P11, P13, P23, P25). Additionally, another important point that the participants realized was not just understanding the other person, but also the ability to understand. For example, while hearing-impaired individuals can usually only use sign language with other hearing-impaired individuals and their families, individuals who don't know sign language don't make any effort to understand them. This situation handicaps hearing-

impaired individuals from communicating with those who have normal hearing. However, every individual has the option to have, start, and finish communication (P27, P28, P29, P30, P32, P45, P46, P54, P55, P56, P67, P78, P79, P80). Participants who emphasized that it is necessary to practice sign language frequently in order to use it effectively while communicating with hearing-impaired individuals drew attention to that; realizing that hearing-impaired individuals communicate with sign language and seeing them as a different community causes individuals with normal hearing to avoid communicating with hearing-impaired individuals (P3, P6, P45, P46, P47). Participants stated the following:

- "...I didn't realize, I couldn't realize until I took the sign language class, but I encountered lots of people on the ferry, on the bus, or while walking by the seaside. I felt ashamed of myself because I didn't realize them until that day" (P12).

- "Taking into account the number of hearing-impaired individuals, I wanted to help them by learning sign language. That inspired me to enroll in the sign language course" (P29).

- "I have been watching the sign language interpreters of the Turkish Radio and Television Corporation (TRT) since childhood, and I have been telling my family that while they can only watch TRT, we have many more options. However, I decided to learn it after I watched the movie 'Başka Dilde Aşk' [Love in Another Language]" (P19, P153).

- "I realized that sign language is not too hard to learn after I made some research" (P10).

- "...I felt very ashamed when I met a hearing-impaired person and they asked me something which I couldn't answer. I said that if I am a human, there shouldn't be a barrier between me and them" (P20).

Participants who drew attention to participating in education to try and understand hearing-impaired individuals as an indicator of accepting them socially without conditions stated that no matter what language you communicate in, it is difficult for every individual to feel obliged to express oneself.

Issue 3

What are the opinions of individuals enrolled in a basic sign-language certification program related to its effect on learning environments? The questions under this issue are as follows:

(Q-1) How do you think a person learns a language? What affects them while they are learning a language? (Q-13) Do you support teaching sign language and using it in different levels of education (preschool, primary school, secondary education, and undergraduate education)? (Q-14) How do you feel about there being sign language education in preschool and primary school education programs?

The participants generally stated that it was necessary to include sign language in education, that children with hearing impairments should use sign language (including in preschool), that children with normal hearing should be supportive of sign language, and official measures should be taken to increase the use of sign language throughout different levels of education and make it widespread.

The effect of sign language on learning environments.

a). The dimension of academic support. Participants stated that the main problem academically is that sign language and its use don't get the attention it deserves, and interdisciplinary cooperation is weak. For example, participants who suggested opening courses under occupational classifications such as doctors, dentists, pharmacists, teachers, lawyers, drivers, and so forth suggested that short term basic education can go both ways, but participants should be grouped in accordance with their education and reasons for learning sign language at the next stages of the course; practice-based education should become more widespread (P1, P8, P13, P14, P16, P18, P21, P22, P26, P27, P31, P34, P56, P63, P77). They also emphasized that training should be supported by the academic environment for a more qualified sign language education in Turkish society, and that it is inevitable to plan common studies with different disciplines. In addition, instructors who teach sign language should have at least a bachelor's degree and have taken lessons in the fields of adult education, educational psychology, language, and expression, and can use Turkish effectively and properly with knowledge of spelling rules (P3, P5, P6, P7, P13, P14, P15, P17, P56, P63, P77, P164, P165).

b). Educational regulations, course content, and material use. Participants who thought that the right to education is an individual and fundamental right just like the right to live stated that learning environments especially for the hearing impaired should include teachers who know sign language (P13, P17, P19, P48, P57, P66, P70). When participants' opinions about educational regulations for sign language and its use were examined, opinions showed that sign language should be a compulsory subject, at least at the secondary-school level; it should be included in every faculty and department of university that contributes to social life; and the sign language skills of preschool, primary school, and secondary school teachers, as well as academic members of higher education institutions, should be supported through in-service trainings (P19, P48, P54, P60, P74, P76, P78, P86, P113, P122, P133, P140, P149, P168). Many participants gave similar opinions such as:

- "I think it is the most effective method for the hearing impaired" (P39).

- "Hearing-impaired individuals use sign language as we use speech. Of course it is an effective method. Actually, it's not a method, it's a language" (P10).

- "Sign language is the most significant tool for communication with the hearing impaired. It is really hard to communicate with them by writing without knowing the logic of sign language" (P158).

- "...As we can't communicate without tongues, the language of the hearing-impaired is their hands. So it is absolutely an effective method. The only problem with sign language is that it is not accessible to every hearing-impaired individual" (P41, P67, P72, P94, P95).

Participants stated that increasing course hours to a sufficient level, low student-teacher ratios, interactive education, having students take notes during class, reviewing the previous week's subjects at the beginning of class, making a video for new words, and sharing them with the group would increase the quality of education (P1, P2, P10, P13, P15, P16, P17, P19).

On the other hand, when participants' opinions about educational regulations in sign language programs were examined, participants stated that course materials should be defined in accordance with the characteristics of the physical environment, that courses should concentrate more on application than theoretical information, field research should be made with individuals from different languages and cultures, and academic research should be supported by grant programs (P30, P33, P34, P45, P46, P56, P57, P58, P67, P69, P71, P72, P83, P87, P88, P89). For example, they stated that a 60-year-old housewife and a doctor should not be included in the same program. Instead, this situation should be organized according to the educational needs and reason for use (P15). They also expressed that it would be more beneficial if applied course trainings were organized in an educational environment for teacher participants within the scope of Ministry of National Education, if training took place in a different healthcare facility than the one doctor participants currently were working in, and if engineering students trained in an institution relevant to the scope of their employment (P18, P36, P120, P136). They also stated that practice and evidence-based evaluations at the end of the practical training period were important for both participants and course instructors, and that it would be appropriate to include this information in the participants' files. Aside from the use of sign language, they draw attention to the importance of the instructor's effective use of sign language in accordance with the ethical principles of the upcoming course process. They thought that this data-based process would be possible with a recording file and should be used in evaluating practices (P1, P8, P21, P36, P54, P71, P78, P91, P97, P103, P116, P121, P123, P124, P142, P144, P166, P167).

Participants mentioned that the course materials should be prepared with a clear, understandable, and fluent language; contextual applications should be enriched with visual materials, course materials should be based on technology, and these things would make it easier to revise and learn sign language. For example, they emphasized that examples of applications, mobile phones, iPads and every kind of

simulation with digital content should be shared visually with the participants (P25, P38, P46, P48, P69, P106, P136, P143).

Issue 4

What are the opinions of individuals who joined basic sign language certificate programs related to examining sign language education in terms of the quality of its programs? The questions in accordance with this issue from the interview form are:

(Q-7) What do you think are the great interests and demands for sign language nowadays? Do you think these must be a precondition for joining the course? (Q-9) What kind of support should be given to instructors to provide higher quality sign language education in Turkish society? What do you suggest for this? (Q-11) What are the important elements in planning and applying sign language training?

Participants generally stated opinions about the sign language education participants' characteristics, the professional and individual competency of the instructors, features of the program, time, evaluation, and the process. They intensely agreed that sign language should be accepted throughout formal education instead of having the characteristics of a course and that it should be monitored.

Examining the quality of sign language programs.

a). The service competence of sign language programs. The participants emphasized that sign language educations should be of similar nature with formal education programs in terms of time, content, evaluation method and process (P35, P36, P37, P38, P39, P40, P41, P42, P43, P44, P45, P50, P51, P52, P53, P65, P68). Opinions of the participants about the characteristics of the sign language instructors:

- "On the basis of the idiom 'A man who speaks a language is a man; a man who speaks two languages is worth two men,' sign language trainings should be those that have humanitarian values, are aware of human rights, don't pursue political goals … We should definitely study with instructors who have a good knowledge of sign language and ability to teach" (P89).

- "I want all the moral and material support that instructors need to reach this level provided them. They must receive training in the teaching techniques of psychology and the educational sciences" (P90, P110, P112).

- "Instructors should be empathetic, respectful, and tolerant" (P120).

- "Instructors should be sensitive, open to change, and have the basic information and skills regarding their field of study..." (P113, P126, P134, P136, P142, P143, P146, P150).

- "...should behave ethically" (P102).

- "…..should be considered as permanent teachers and supported, in my opinion… It is so significant to include it in basic education" (P119).

Participants who stated opinions about the professional and individual competency of instructors stated the importance of equipping instructors and of training in terms of quality (P14, P24, P26, P27, P28).

b). Examining the professional status of the sign language program. Participants who suggested that certification and accreditation of sign language training should be made based on the results of periodic evaluations explained its professional status in different areas. For example, they emphasized that sign language programs' professional status must be shown by a three-stage module. Individuals who have completed only the first module, the introduction to sign language, should only be basic sign language instructors; stage two allows them to be sign language instructors. By the end of the third stage, they should be sign language interpreters (P8, P9, P10, P13, P45, P56, P67, P89). Participants thought that every institution should have two employees who know sign language: one interpreter and one instructor. They emphasized that vocational education and basic education should be defined as specializations in different fields of study (P16, P17, P26, P27, P28, P29, P30, P42, P45, P56, P67, P78). For example, a doctor, company executive, lawyer, or teacher could be a sign language interpreter, but only by having pedagogical formation can they be a sign language instructor. Participants stated that institutions that provide this training should have standards and be inspected in terms of placement, competency, academic and administrative staff, time requirements, visual-material competency, and so on by the Federation or Ministry.

Participants who pointed out that regulations regarding sign language instructors' education and professional qualifications stated that these are important for solving problems regarding the basic communication needs of the hearing-impaired. In particular, recent amendments in the law and regulations have stated that sign language use is an individual right for the disabled. Participants who also mentioned personal and professional qualifications of sign language instructors stated that this job should be conducted by those who love people and can work on the basis of respect and ethical rules. They said, "…It is a nice job, but it requires a lot of responsibility and patience. Those who do this job must show empathy and understand others" (P13, P17, P19, P34, P39, P54, P77, P155), and they suggested that every institution must employ at least two sign language interpreters by saying, "…I think every institution needs at least two sign language interpreters" (P100, P110, P112, P163).

Issue 5

What are the opinions of individuals enrolled in basic sign language certification programs related to examining sign language education practices in terms of personnel and participants' characteristics? The questions on the interview form in accordance with this sub problem are as follows:

(Q-12) What should be the individual and professional qualifications of a sign language instructor? (Q-16) Which questions must a sign language instructor answer as a teacher? What do you suggest the instructors do in this regard? Do you think a prerequisite should be to attend this course? In your opinion, what kind of qualifications does one have to have to become a sign language instructor?

Participants primarily emphasized two aspects for sign language to become more widespread: sign language learning and use. They stated that these two aspects can differ regarding instructors' professional qualifications and the course attendees' interests, will, repetitions, purpose for learning, and motivation.

Personnel and participant qualifications.

a). Opinions on the effect of instructors and participants' communication skills on sign language education programs. Participants stated that course attendees must follow a process that includes practice. They also drew attention to the effect of individual differences regarding instructors and attendees' communication skills on teaching and learning (P1, P3, P5, P6, P8, P11, P12, P14, P34, P56, P89). For example, participants stated that instructors must be educated in pedagogical formation and must be experienced and informed about adult education (P119, P121, P133). They suggested that appropriate sign language programs should be prepared for all levels of education to support communication skills, and sign language should be included in the scope of compulsory subjects in higher education including secondary education. They stated their opinions about the importance of sign language use for every individual, with or without hearing-impaired children, as follows:

- "In simplest terms, when I see a deaf individual who needs help in shopping malls, I go and help them" (P15).

- "Above all, you have the self-confidence that you can help someone in need" (P17).

- "…It makes people feel freer" (P25).

- "Entering different worlds and helping others is indescribable; knowing sign language makes one more comfortable because you know you can help when needed" (P25).

- "This training should be provided beginning in primary school. It shouldn't be a special training. Everyone should learn sign language" (P26).

- "...I support it and I would like it to be included in standard curriculum as a course. Training must start in preschool and continue" (P46).

- "As an impairment candidate, we all must be educated starting with childhood" (P60).

- "…It can be included as a compulsory or elective course at the faculties of universities and as a course in schools within the scope of the Ministry of National Education. Open education faculty courses and Koran courses can be aired on TV; sign language courses can also be aired" (P19, P21, P33, P34, P41, P46, P48, P70, P71, P77, P78, P79, P80, P81, P82, P122, P133, P140, P145, P149, P150, P152, P154, P156, P168).

Participants who drew attention to communication as a multidirectional and dynamic process thought that sign language use was not limited in terms of place or time.

Discussion

The 628 opinions expressed by the participants, as a result of the research findings, were contained in five main themes: reasons for enrolling in sign language education, determining the place of sign language education in social life, the effect of sign language education in learning environments, examining the quality of sign language education programs, and examining sign language education regarding personnel and participants' characteristics. When looking at the reasons for participating in sign language education, findings about educational need, language use, and confidence were obtained. In the literature, Goodwyn and Acredolo (1993) in their study discussed sign language competency and the use and interaction levels in families, emphasizing the importance of using sign language early on. Their research, which was conducted using an experimental design, showed that while 32 out of 69 families with 11-month-old hearing-impaired children stated that they had used sign language to communicate with their children, 37 families stated that they hadn't made any special effort and didn't use sign language. Their study, which drew attention to the use of sign language in the communication skills of families with their children, concluded that families who used sign language to communicate with their hearing-impaired children supported their child's language development with signs that correspond to verbal words. Children's improvement in families who didn't prefer using sign language while communicating was stated to be slower compared to the other group. Another research conducted by Goodwyn et al. (2000) stated that hearing-impaired two-year olds, by the end of the study, could understand words, form longer sentences, and show less difference between them and their peers in terms of understanding and using verbal language at the age of three if sign language had been used when communicating with them when they were 15-months old.

Various studies conducted with hearing impaired adults and children have stated that teaching sign language to children with normal hearing at different ages as a second language was effective on their interpersonal communication, awareness of the disabled, and social interactions (Felzer, 1998), children who had grown up in families where sign language was used could express their feelings better and had higher confidence in their level of communication (Gongora & Farkas, 2009; Vallotton, 2008b), and hearing impaired children could understand adults' behaviors more easily and quickly in environments where sign language was used (Vallotton, 2008a, 2009, 2011). These findings support the current research participants' opinions about language use, confidence, academic support, and increased quality of interaction with sign language.

The findings related to sign language education as an effective element at creating awareness in social life was obtained from participants' opinions about determining the place of sign language education in community life. In the literature, studies that have drawn attention to the relationship between hearing-aid use and education state that hearing loss should be diagnosed as early as possible, and hearing aids should be worn to help hearing-impaired individuals develop language and speaking skills (Akın et al., 2009; Geers et al., 2008; Piştav Akmeşe 2014). When these needs are not met, hearing-impaired individuals detach themselves from society and many of them do not benefit from social services as they increase in age (Parlak, 2011). Although legal regulations try to avoid this situation, such as with using sign language, distributing it widely, including it in educational environments, researching awareness, accepting disabled individuals, and changing attitudes clearly show that individuals with and without disabilities live in different areas of society. Analogous to the literature, many research participants stated that knowing and actively using sign language provided an advantage in community life, and those who knew sign language could communicate with the hearing-impaired more effectively. This situation can be clearly seen in examples from studies conducted on the participation of hearing-impaired individuals in society both in Turkey and abroad, obtaining services, the problems they face in education and professional life, communication preferences, and tracking processes in recruiting and medical services (Gürboğa & Kargın, 2003; Koennigsfeld, Beukelman, & Stoefen-Fisher, 1993; Parlak 2011). In a research based on employers and the recruiting process for hearing-impaired individuals, when senior executives from two factories that employed 156 hearing-impaired individuals were asked how they employ them, they stated:

> We guide them around the factory when we employ them. We show them what we do in the departments and make sure they are employed in the department they want. They prefer the departments where other hearing-impaired individuals work the most. We are quite pleased with their work. We would like to learn scientific methods to set up a permanent institutionalized system.

When the same executives were asked how they communicated with hearing-impaired employees, they said, "If we realize that we cannot communicate with hearing-impaired employees by writing or lip-reading, we get help from employees who use sign language actively" (Parlak, 2011). This same study examined the communication preferences of hearing-impaired individuals for communicating with their coworkers. From the 156 hearing-impaired employees in the factory, 114 employees were asked by questionnaire how they communicated with their coworkers. Sixty-seven individuals stated that they used sign language, 11 read lips, and 36 used total communication. When asked who helped them when a problem occurs at work, 60 individuals replied a friend who knew sign language, 42 replied someone (not a friend) who knew sign language, and 12 replied their foreman helped them. The results of this research show that hearing-impaired individuals' most preferred communication method was sign language; they are in communication and employment together with individuals who know sign language, and when there is a problem, they most often get help from someone who knows sign language.

Of the opinions about the effect of sign language education in learning environments, the opinions about academic support, educational regulations, course content, and material use were obtained. In other similar research in the literature that supports this finding, the degree of hearing impairment was the leading factor that affected the verbal communication skills of hearing-impaired individuals. Other determining factors were also the age at which the impairment was diagnosed, the degree of impairment, the age when the individual started school, the quality of education, the language, and the speaking problems that resulted from the impairment (Akın et al., 2009; Boons et al., 2013; Piştav Akmeşe, 2014).

Parlak's study (2011) also examined the communication preferences of 12 hearing-impaired university students between the ages of 17-22 (all of whom had hearing aids at a late age and hadn't received special education). At the end of the research, those who had received help when they were young were the ones who used total communication based on lip-reading, written, and verbal language in addition to knowing sign language very well. The hearing-impaired students stated that they had needed counseling services suitable to their needs. Those students who had difficulty understanding written materials due to a vocabulary or grammar deficiency needed sign language support, and materials should be adjusted for their evaluation. Interviews made with the hearing-impaired high school students showed that out of 13 students (eight were hearing impaired by birth and 11 used a hearing aid regularly) eight students could use total communication, hearing-impaired students preferred sign language among themselves and had difficulty communicating outside of school, and they tried to use speech, lip reading, and writing in general communication. In the same study, 32 teachers who worked in a high school for the deaf stated that they

used sign language for nearly 100% of their communications with students, and it was necessary to convert methods and materials used in formal education into sign language to support speaking, reading, and writing. Another research that supports the findings about the dimension of academic support and educational regulations was conducted by Koennigsfeld et al. (1993). At the end of this study, which had been conducted with 15 individuals who had severe hearing impairment between the ages of 25-65, many hearing-impaired individuals stated that they had never used a hearing aid. They preferred using sign language; lip-reading in environments such as work, home, church, and shopping malls; and they explained words they couldn't understand in writing. Similarly, Gürboğa and Kargın (2003) stated that hearing-impaired adults understood sign language the most; lip-reading was in second, and sign language and listening came in third together. They most frequently stated their wants and feelings in daily life to family members using sign language; spoken words and sign language came in second, using an interpreter was third, and writing was fourth in their study that they conducted to determine the communication methods hearing-impaired adults used in different environments and situations in daily life. As seen in their research, hearing-impaired adults most frequently used sign language with their family, while shopping, in friendships, and in communication with coworkers in daily life to understand and express themselves. Most hearing-impaired individuals live with other hearing-impaired individuals. Because they prefer to communicate with non-hearing-impaired family members using sign language, a communication environment where speech is not used has been created around the home. The results from studies conducted on different-aged hearing-impaired individuals from different areas about how individuals who communicate with the hearing-impaired showed that sign language was of vital importance and came first in the communication preferences of hearing-impaired adults who were deaf from birth and had been educated in a school for the deaf. Auditory verbal education has been used widely in recent years parallel with the increase in early diagnosis and hearing-aid implants (Hayes et al., 2009). However, sign-language was used nearly all the time for the hearing-impaired who couldn't benefit from early intervention audio-verbal education opportunities (Parlak, 2011).

It is important to teach sign language at early ages just like in normal language education. In a study conducted by Blackburn (1998) that examined the inter-family interactions of hearing-impaired individuals and the effect of sign language use regarding language development, the researcher lived in the house of the family as a participant observer and stated that families interacted less with their hearing-impaired children than with their children with normal hearing; the children were shown less verbal approaches and scarcely had any interactions with the parents. In the period that examined the effects of the researcher-developed program, a family education program developed on the basis of sign language was observed to support family interactions with the child. The

family learned practices that increase interactions by using signs and symbols in daily speech, and their interactions with children were made into a home entertainment video. The results were an increase in American Sign Language use, support for parent-child interactions in homes where English was spoken positively, and progress was made in creating common meaning. In the current study, opinions expressed that sign language education ought to be given starting at an early age, that every individual in society should know sign language, that knowing sign language creates confidence in individuals with normal hearing, and that this significantly contributes to interpersonal interactions.

Erting's (2001) study on hearing-impaired children and adult interactions examined the effect of sign language use and book sharing activities on their interactions; she conducted research with a 5-year-old preschool student, his teachers, and family to create common meanings between children with severe and very severe hearing impairments. Erting, who stated that the hearing-impaired individual was affected by cultural and linguistic differences, stated that hearing-impaired adults especially participate more actively in the education of hearing-impaired children at early periods. Teachers who knew sign language with its cultural and linguistic characteristics and could conduct book sharing activities were seen to be able to make a needs analysis of hearing-impaired children more effectively.

Another research conducted by Erting et al. (2002) examined the interactions of 60 hearing-impaired children with six friends without hearing impairments and with five hearing-impaired teachers; the children were observed in their home environment until they were five-years old. Studying with teachers who have a good command of sign language when starting school was stated to have significantly affected academic success and improved children's communication and social skills; they benefited from book-sharing activities using sign language and gained self-confidence and social-skill competency. While children tended to communicate with hearing-impaired teachers more often in school at the beginning, they did start to get close to teachers with normal hearing who could use sign language as time progressed. Sign language was stated to contribute to learning, and when it is properly used, lecturing children teaching programs in sign language would be the basis for their academic and social successes in adulthood. In this research, participants stated that preparing educational regulations and course materials by specialists who know sign language will enrich educational environments and that everyone in society should learn sign language. Providing better educational opportunities to the hearing impaired and including them in society as educators is important for them to be active participants in programs that would be prepared and applied. Participants who attended sign language training stated that hearing-impaired individuals should take part in sign language education. Including hearing-impaired individuals in the training was seen to be significant for both increasing the effectiveness of sign language programs and uniting people.

Research conducted on sign language has included suggestions regarding the participation of families with hearing-impaired children in sign language education programs and which qualities these programs should have (Felzer, 1998; Vallotton, 2008b, 2009, 2011). It was stated that sign language instructors who take part in these programs should understand families; communicate with them effectively; have high levels of professional and personal competency; have improved teaching skills; have information about health, education, and child development; be open to cooperation; be able to use research methods and techniques; and have the ability to observe.

Participants stated that the professional competency of sign language instructors and course attendees' interest, will, and repetition can differ as far as the purpose for learning the language and their motivation. Families have been stated in the literature to be able to use sign language as a tool of intervention, so it is necessary to pay attention to the competency of sign language instructors and course attendees (Moore et al., 2001). Researchers who have argued that families, preschool teachers, and primary school teachers especially should participate in sign language training and be educated on early diagnosis, communicating with children, and observation techniques (Gongora & Farkas, 2009; Vallotton, 2009) have stated that children's ability to learn sign language as a second language is based on the effective and proper use of sign language by the adults around them (Goodwyn & Acredolo, 1993; Felzer, 1998).

As a result, all these findings show that there is a huge demand for sign language from every aspect of society. Graduated competency certificates should be issued for sign language education; competency should be determined by taking into account training levels in three stages that follow certain criteria; the length, content, evaluation methods, and process should be similar to formal education programs; and certification and accreditation of sign language courses should be periodically evaluated. In addition, every individual's ability to know sign language is important for hearing-impaired individuals in terms of effective communication with the society they live in, for becoming independent and productive individuals, and for improving their life standards.

Conclusion and Suggestions

The results obtained from this research differ according to the reasons participants enrolled in the sign language training. Participants who stated that they had continued their training for educational purposes and needed to use it effectively in social life drew attention to sign language education in terms of awareness, language use, and confidence. Yet, they stated that there should be legal regulations that defined the place of sign language in community life, particularly with the cooperation of the Ministry of National Education and Higher Education Institutions.

They also stated that families, schools, and teachers should cooperate and that sign language education is very effective in learning environments. Participants who drew attention to the importance of this effectiveness for those with normal hearing as well as the hearing-impaired thought that the effective use of sign language by teachers and students would contribute significantly to aspects of academic support. They also suggested that studies regarding educational regulations, course book preparations, course content, and material use should be conducted by taking sign language into account.

Another subject as important as using and widely distributing sign language was the opinions about the qualities of sign language education programs. Participants were understood to feel that there should be regulations regarding the service competency of sign language education programs, that programs should be accepted professionally, and that sign language education practices should be examined in terms of the qualifications of instructors and attendees. Making monitoring studies was felt to be obligatory based on the opinions that stated instructors and attendees' communication skills affected the quality of sign language education programs.

Some suggestions were developed based on the results obtained from the research. These can be stated as follows:

According to the research results, participants' reasons for attending the sign language course was not for their profession or job; they attended the course because they knew hearing-impaired individuals, planned to communicate with them in a qualified way, and wanted to improve themselves. They adopted the idea that knowing sign language would provide a more meaningful communication competency with hearing-impaired individuals. However, participants who suggested to apply education based on resource and material deficiencies thought that the level of support from government agencies and institutions was insufficient. For more reliable sign language training, field specialists should conduct studies on the qualities of courses regarding materials and education programs.

Education programs can be at introductory levels in practice centers within the scope of universities. Participants applied training can be conducted in a planned and controlled way by academicians who work in the fields of audiology and speech disorders, special education, and ear, nose, and throat.

Separate competency indicators should be prepared for instructors and attendees by determining the competency of sign language education programs. For this purpose, the Ministry of National Education, Ministry of Family and Social Policies, Social Security Institution, universities, Federation of the Deaf and other associations should cooperate with each other.

Sign language education programs should be evaluated in two dimensions: *process* and *result*. For this purpose, programs should include alternative assessments and evaluation techniques.

By repeating this research, which has the feature of being the first in terms of subject and purpose with similar groups, one can obtain results that are conveniently generalized.

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