

Research Article

**Examination of Turkish Sign Language Education According to the Opinions of  
Preservice Teachers who Attend to the Sign Language Course**

Pelin Piřtav Akmeře<sup>1</sup> Nilay Kayhan<sup>2</sup>

**Abstract**

Sign language is one of the methods the hearing impaired individuals use to communicate. The teachers have a great responsibility in the use of sign language as a communication tool in educational environments. Thus, it is important to train teachers who know sign language and can actively use it in education. This study aims to examine the opinions of the faculty of education students who take elective sign language course related to Turkish Sign Language education. In this study, which has been performed in descriptive design, semi-structured interview technique from among qualitative research methods was used. For this purpose, a semi-structured interview form was prepared and an expert's opinion was received. 62 preservice teachers from four different departments (Guidance and Counseling, Primary Science Teaching, Computer Education and Instructional Technologies, Primary School Teaching) who had completed sign language education were interviewed face-to-face. NVivo program was used for the detailed and holistic analysis of the findings which reflected the opinions of the preservice teachers. The data were divided into four main themes:

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<sup>1</sup> Asst.Prof.Dr., Ege University, Faculty of Education, Department of Special Education,  
pelinakmese@gmail.com

<sup>2</sup> Asst.Prof.Dr., Hasan Kalyoncu University, Faculty of Education, Department of Special Education,  
nilaykayhan@gmail.com

Examination of Turkish Sign Language Education According to the Opinions of  
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*"Effectiveness of Turkish Sign Language in daily communication", "Having hearing impaired family members, relatives or friends", "Necessity (interest) for the Turkish Sign Language", "Academic Efficacy of the Turkish Sign Language".* The findings of this study are thought to be able to contribute to the sign language course programs and professional competency of the teachers who will serve in the field of special education.

**Keywords:** *Turkish Sign Language, Turkish Sign Language course, hearing impaired, communication, awareness*

## **Introduction**

There are two types of natural human languages. The former one is auditory-spoken languages that use sounds and the latter is visual-sign languages that use gestures. Sign language is a whole and inclusive language in which visual symbols created by the hands, fingers, head, face, mimics, and gestures, and all body movements are used instead of vocal symbols (Armstrong & Wilcox, 2003; Kubuş, İlkbaşaran & Gilchrist, 2016). Sign language is one of the methods the hearing impaired individuals use to communicate (Arık 2016). It is necessary to diagnose the hearing impairment early on, implement a hearing aid as soon as possible and start education to enable hearing impaired individuals to gain spoken language and speech skills effectively (Akın, Tezer, Şahin & Akar 2009; Boons et. al, 2013; Geers, Tobey, Moog & Brenner 2008; Pistav-Akmese & Acarlar, 2016). An individual's having a normal hearing is important for benefiting from the education process completely. However, it is not possible for every child who uses hearing aid or cochlear implant and receives auditory verbal education to communicate verbally at the same level with their peers (Belgin & Yücel, 2011). A study conducted by Pistav-Akmese and Acarlar (2016) has been stated that age-appropriate score observed in 63% of the children on measures of receptive language 50 % on expressive language is and Geers et. al. (2009) 47% on receptive language and 39% on expressive language. Another study in which the vocabulary was examined has been stated that age-appropriate score observed in 47% of the children on measures of both receptive and expressive vocabulary (Piştav-Akmeşe & Kirazlı, 2016a) and 50% on receptive vocabulary, 58% on expressive vocabulary (Geers et. al. 2009). It is necessary to determine the communication method and education system that the child will benefit the most and especially to teach formal sign language to the children who have a low chance of acquiring speech skills in order to express themselves by taking into consideration the age of the diagnosis of hearing impairment, age of implantation and language development level related to language development of hearing impaired children (Belgin & Yücel, 2011; Piştav-Akmeşe & Kirazlı, 2016b).

## **Hearing Impairment and Communication**

Our country is one of the countries in which hearing impairments are most frequently seen. Approximately 2500 babies are born with hearing impairments every year in Turkey (Şahlı &

Belgin, 2011). In accordance with the level of impairment, delays are seen in the social, emotional, communicative and educational areas of hearing impaired children in addition to language (Piştav-Akmeşe & Kirazlı, 2016b; Seeber, Baumann & Fastl, 2004; Şahlı & Belgin, 2011). As the level of hearing impairment increases, speech production and vocabulary decrease; literacy skills and academic success diminish (Diefendorf, 1996; Piştav-Akmeşe & Kirazlı, 2016a). The results of the researches in the literature shows that the use of sign language positively affects the cognitive, social, emotional and language development and decrease the difficulties that can be encountered (Behne, Carpenter & Tomasello, 2005; Felzer, 1998; Goodwyn, Acredolo & Brown, 2000; Göl-Güven 2016; Moore, Acredolo & Goodwyn, 2001; Vallotton, 2011).

The studies conducted with the hearing impaired individuals at different ages and in different environments has been shown that they prefer sign language for communication. For example, high school students have been reported to frequently use sign language in their intraschool communication, have difficulty communicating outside of school, try to use speech, lip reading and writing. The same study has been stated that 32 teachers who work in high school for deaf use sign language in their nearly 100% of communication with their students (Parlak, 2011). In another study in which the communication preferences of the hearing impaired individuals were examined in different environments and with different people in their daily lives, it has been stated that 70-75% of the hearing impaired individuals who were born with severe or profound hearing loss prefer sign language in their daily lives (Gürboğa & Kargın, 2003). These results show that the hearing impaired prefer sign language both in school and their daily lives.

### **Turkish Sign Language (TSL) Education in Turkey**

The interest in sign language has been gradually increased both in the world and Turkey (Arık 2016; Kubuş, İlkbaşaran & Gilchrist, 2016). This interest especially affected the educational regulations in higher education institutions and enabled the opening of sign language programs. Gallaudet University in the USA, Amsterdam University in the Netherlands, Hamburg University in Germany, Jyväskylä University in Finland and London (Collage) University in England have been opened post graduate and doctoral programs

focusing only on sign language linguistics researches as well as the undergraduate programs (Arik, 2016).

The first formal study regarding education was Sign Language Guide for Adults which was published in 1995 in the field of Turkish Sign Language (or *Turkish Sign Language* [TSL] in Turkish) lexicology by the Ministry of National Education General Directorate of Special Education Guidance and Counseling Services. The guide has been arranged as a word list in which Turkish is used by the use of signs. The guide published in 1995 was renewed and Turkish Sign Language Dictionary (1986 words and idioms) was published in 2012 by the same institution (Kubuş, İlkbaşaran & Gilchrist, 2016). The legal regulations have a determining role in the increase of the scientific studies regarding sign language as with the other fields. It has been stated in the Law on Disabled People and Making Amendments in Some Laws and Decree Laws, which was adopted by Grand National Assembly of Turkey on July 1, 2005 and published in the Official Gazette on 07.07.2005, that the impaired people should be protected against discrimination. The first Article regarding TSL and in which "Turkish Sign Language" phrase is stated in the Republic of Turkey is "*Article 15: Turkish Sign Language is created by Turkish Language Institution in order to provide the education and communication of the hearing impaired people.*" (Kubuş, İlkbaşaran & Gilchrist, 2016). It can be said that the studies about the sign language have been accelerated in the last decade in Turkey.

The conventions accepted by international parties and the results of the researches have been effective in this process. Our country has been a part of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) since 2009. This convention is an important step in the language rights of the hearing impaired individuals. It has been stated in the Article 24. Part 3 that regards the education of the hearing impaired (b) "*Facilitating the learning of sign language and the promotion of the linguistic identity of the deaf community*" and (c) "*Ensuring that the education of persons, and in particular children, who are blind, deaf or deafblind, is delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development.*" (Kemaloğlu, 2014a; Kubuş, İlkbaşaran & Gilchrist, 2016). According to the report of Balkan Questionnaire Study which was published in 2007, the hearing impaired individuals face serious problems. The statements of the hearing impaired individuals who

had participated in the questionnaire such as *"The teacher was just talking in front of us and we were just sitting in the class"* or *"We have been graduated from the school and received a diploma that shows we completed the education. But we still haven't known how to write and read."* reveals the situation of the hearing impaired individuals in our country. Besides, the communication is affected negatively as a result of that the teachers who serve in schools for the deaf don't know sign language in many countries around the world and this situation resulted in a decrease in the quality of the education. A good education in multilanguage is only possible with the teachers who know at least two languages at an advanced level. (Skutnak-Kagnas, 2000; *as cited in* Kubuř, İlkbařaran & Gilchrist, 2016). It is a well-known fact that among the schools for the deaf in our country, there has not been an institution where the Turkish Sign Language (TSL) is taught deliberately. Similarly, there has not been any education institution that gives a bilingual education with both Turkish Sign Language (TSL) and auditory verbal education (İlkbařaran 2013; Kemalođlu 2014b; Kubuř, İlkbařaran & Gilchrist, 2016).

With regard to the sign language education in higher education institutions, "Sign Language" has been added to higher education programs as an elective course as of 2013-2014 academic year in accordance with the decision of September 2013. It has been added as a compulsory course in the hearing impaired teaching programs as of 2014-2015 academic year. "Turkish Sign Language" is included in the special education teaching undergraduate programs as a 2 credit compulsory course in the 3rd term in the 2016-2017 academic year according to the current new regulation. *"Turkish Sign Language"* course book prepared by Akalın and Cavkaytar (2014) has been used as a comprehensive course book in the teaching of Turkish Sign Language (TSL) in the current situation. The course hours of the sign language are low in higher education, besides, the number of the academicians who will be able to give "sign language" course in accordance with the language competency standards is not sufficient. Piřtav-Akmeře (2016) stated that the sign language education should be given to groups of maximum 20-25 people, it should include theoretical and practical aspects intensively and the sign language instructors must have pedagogical formation education as the result of her research in which the opinions of 190 individuals from a basic sign language certification program about the sign language education and competency of the sign language instructors.

There have not been any undergraduate programs regarding the Turkish Sign Language field in Turkey yet. Establishing four-year undergraduate programs that will train experts in sign language field, training Turkish Sign Language interpreters, developing curriculum and training materials to be used in these programs can be stated as the urgent needs.

Sign language's being known and used by the personnel who will participate in the education of the hearing impaired individuals is important for the early intervention. Nearly 100% of the hearing impaired individuals who are not able to benefit from early, intervention and auditory verbal education opportunities and educated in the schools for the deaf prefer sign language for communication (Parlak, 2011). In this regard, sign language is highly important for a healthy communication with the hearing impaired individuals and for including them to the society. Early and natural acquisition of sign language is a privileged subject. The biggest problem in this field is the lack of the teachers who know Turkish Sign Language and the bilingual education programs in which the Turkish Sign Language is used in the preschool education and primary education institutions (Kubuř, İlkbařaran & Gilchrist, 2016). This study aims to examine the opinions of the faculty of education students who take elective sign language course related to Turkish Sign Language education. The findings are thought to be able to contribute to the sign language course programs and application process.

## **Purpose**

The purpose of the research is to examine the opinions of 62 preservice teachers who had attended to elective sign language course about the Turkish Sign Language education. For this purpose, the answers for the sub-purposes below have been sought:

1. What are the opinions of the preservice teachers who attended to elective sign language course related to the effect of sign language on the communication process?
2. What are the opinions of the preservice teachers related to the reasons for preferring sign language?
3. What are the opinions of the preservice teachers related to the use of Turkish Sign Language in educational environments?
4. What are the opinions of the preservice teachers related to the effect of sign language on their vocational career?
5. What are the opinions of the preservice teachers related to their competency for using the Turkish Sign Language in their academic and daily lives?

## **Methodology**

The data of this study which was performed in descriptive design has been collected by using semi-structured interview technique from among qualitative research methods. The researchers who are experts in the hearing impaired, language and speech disorders, communication, special education, teacher training fields firstly reviewed the literature, and the questions related to the use of sign language in sign language and educational environments were prepared. After that, they were submitted to the review of the experts; 2 from special education and the hearing impaired field and 1 from education programs field. The questions were restructured in accordance with the suggestions and the corrections of the experts, and turned into semi-structured interview form. 62 preservice teachers who are studying in four different departments (Guidance and Counseling, Primary Science Teaching, Computer Education and Instructional Technologies, Primary School Teaching) who had completed sign language education were interviewed. The study is limited to the opinions of the senior preservice teachers who are studying in the same faculty of education.

## **Participants**

The study group of the research was determined in accordance with the maximum variation and criterion sampling from among the purposive sampling methods (Yıldırım & Şimşek, 2011). The criteria participating in the research as a willing volunteer and successfully completing the elective sign language course were taken into account.

The first researcher, who has been working as an academic member who has a doctoral degree in the special education field is an audiology and speech disorders specialist. She has been doing applied and clinical work in diagnosing, rehabilitating, and educating of hearing impaired individuals and sign language. The second researcher, who has been working as an academic member in special education field, has been continuing applied studies related to coeducation, general education and cooperation between the special education teachers, educational regulations in the general education programs, preparation of individualized education programs for the children with special educational needs in the inclusive environments, creative drama in special education and game.

62 preservice teachers who had successfully completed the elective sign language course program in 2015-2016 fall or spring term participated in the research. All preservice teachers were interviewed face-to-face. 11 questions in the interview form were asked in the same order, and the participants were allowed to express their opinions, adding details as they wish. The demographic information of the participants *related to age, gender, areas participants continue their education, sign language education information source, if there is a hearing impaired individual in the close environment or family, if they experienced sign language in their close environment before participating in the sign language course* is listed in Table 1.

Table 1  
*Demographic Information of the Preservice Teachers (n:62)*

	Average±SD	Min-Max.
Average of age	22.37±0.79	21-25
Gender	F	%
Female	42	67.7
Male	20	32.3
Areas participants continue their education		
Guidance and Counseling	15	24.2
Primary Science Teaching	19	30.6
Computer Education and Instructional Technologies (CEIT)	18	29.1
Primary School Teaching	10	16.1
Sign language education information source		
Via a friend	11	17.7
Via Academic members and/or advisor of the department	5	8.1
Via personal course selection system	46	74.2
Is there a hearing impaired individual in the close environment or family?		
Yes	9	14.5
No	53	85.5
Did they experience sign language in their close environment before participating in the sign language course?		
Yes	22	35.5
No	40	64.5

As shown in Table 1, a majority of the participants, whose age ranged between 21 and 25, were women preservice teachers (67,7%). Of the 62 participants who had completed sign language course, 24% was from Guidance and Counseling, 30.6% was from Primary Science Teaching, 29.1% was from CEIT and 16.1% was from primary school teaching. Elective sign language course was found to be most frequently learned via personal course selection system (74.2%), friends came in second (17.7%), and academic members and/or advisor of

the department comes with the lowest rate. Besides, it has been seen that 14.5% has a hearing impaired individual in the close environment, 35.5% experience sign language in social life (in the subway, bus, university campus).

### **Data Collection Instrument**

The data of the research was collected using semi-structured interview form which was prepared in accordance with interview technique (Bogdan & Biklen, 2007; Creswell, 2005; Yıldırım & Şimşek, 2011). An expert's opinion must be received from people who are experienced in the relevant field in order to express the questions more effectively in the use of the interview technique. These principles were taken into account in the preparation of the data collection instrument.

### **Data Collection Process**

The research group consisting of 62 preservice teachers from the departments of Guidance and Counseling, Primary Science Teaching, CEIT, Primary School Teaching were chosen on a voluntary basis among the preservice teachers who had completed the elective sign language course in Ege University Faculty of Education in 2015-2016 academic year fall and spring term. Face-to-face interview sessions were conducted individually with every preservice teacher, the room of the academic member was used for this purpose. Each preservice teacher was interviewed 30 minutes in average.

### **Data Analysis**

The perceptions and expressions of the preservice teachers were used as a baseline in the research. Descriptive analysis was conducted to analyze findings that reflected the opinions of the preservice teachers who had taken sign language course in a detailed and holistic way. The descriptive analysis in the qualitative researches is an analysis which consists of the participants' answers to each question and aims at expressing the similarities and differences between these answers (Bogdan & Biklen, 2007).

In data analysis, the conceptual frame of the research and the research questions were taken into account. Preparation, organization, and reporting stages in which deduction and induction methods were used together were pursued. The analyzed data were converted into themes as the context analysis. The findings were obtained by rendering conceptual structures and data into qualitative categories (Elo & Kyngas, 2008). NVivo program was used in the analyses of the data obtained from the research.

**Preparation Stage:** All written statements of the preservice teachers were analyzed. Each preservice teacher was given a coded number (i.e. P1) and the descriptive data were converted into writing in the interviewer comment and page comment sections. The preservice teachers were sorted by the departments they study, numbers used for the departments are as follows: P1-P15 for Guidance and Counseling, P16-P34 for Primary Science Teaching, P35-P52 for CEIT, and P53-P62 for Primary School Teaching. After this data was transferred to an electronic environment, the analysis stage was started. Thus, an online data list was made from the 62 preservice students' demographic information and answers to the questions from the interview form.

**Organization Stage:** The researchers firstly formed a conceptual frame by taking the research questions into account in this stage. Then, they decided which categories and themes the answers would fall under to conduct a holistic analysis. In the analysis of the data which had been transferred to the electronic environment and listed descriptively, similar data was organized and rendered by gathering under specific concepts and themes. First, the data listed descriptively was coded. The data obtained was grouped and matched under the related interview question. The researchers used the interview questions as a base in this stage.

**Reporting Stage:** The data of the study was simplified and associated and the codes were converted into themes. The data obtained were converted into qualitative statements and their percentages were calculated. The main purpose of this stage is to reach concepts and relations that will be able to explain the gathered data. The findings were written by directly citing the opinions of the preservice teachers in this stage. For the reliability of the research, reliability calculation between the coders was conducted. A high compliance between the coders shows a high scoring reliability.  $Reliability = \frac{Agreement}{(Agreement + Disagreement)} \times 100$  formula

(Miles & Huberman, 1994) was utilized for the reliability and the reliability between coders was calculated as 90%. In accordance with this result, the research was accepted as reliable.

## Findings

The opinions of the 62 preservice teachers participated in the research were described under 4 themes, 8 sub-themes and 98 occurrences (frequency). The themes and sub-themes developed as a result of the analysis are shown in Table 2 in the findings section.

Table 2  
*Themes and Sub-themes Related to the Elective Sign Language Course and Educational Practices*

	f	%
1. Helpful in the daily communication process		
1.1. Opinions about the effect of sign language on the daily life	25	25.51
1.2. Opinions about use and confidence of knowing a language	18	18.36
2. Communication with the hearing impaired in the family and close environment		
2.1. Opinions about the positive contribution to the social life	3	3.06
2.2. Opinions about the studies on the sign language awareness	3	3.06
3. Necessity in social life-interest		
3.1. Opinions about that it will increase their own social participation in social life	12	12.24
3.2. Opinions about that it is a legal right for the hearing impaired individuals	7	7.1
4. Need for the academic knowledge and professional competency		
4.1. Opinions about the positive contribution of sign language use to the professional competency of a teacher	13	13.26
4.2. Opinions about the material use and the ability to make educational regulations based on individual awareness academically	17	17.34
Total	98	100

Table 2 explains that the percentage (%) calculated for each sub-theme is the status related to the elective sign language course on which the participants stated opinions most; the lowest % is related to the opinions and suggestions about the elective sign language course compared to other themes. 27 participants stated opinions on main theme "*helpful in daily communication process*". However, 25 of 27 participants stated an opinion on the sub-theme "*Effect of the Turkish Sign Language to the daily life*", and 18 participants stated an opinion

on the sub-theme *"Opinions about use and confidence of knowing a language"*. Secondly, 3 participants stated an opinion on the theme *"Communication of the participant with the hearing impaired in the family and close environment"*. These opinions were included in the sub-themes *"Opinions about the positive contribution to the social life"* and *"Opinions about the studies on the sign language awareness"*. Thirdly, 12 participants stated an opinion on the theme *"Necessity in social life-interest"*, all participants stated opinions on the sub-theme *"Opinions about that it will increase their own social participation"* while 7 preservice teachers stated an opinion on the theme *"Opinions about that it is a legal right for the hearing impaired individuals"*. Fourthly, of 20 people stated opinion on the main theme *"Need for academic knowledge and professional competency"*, 13 stated opinion on the first sub-theme *"Opinions on the positive contribution of sign language use to the professional competency of a teacher"*, 17 also stated opinion on *"the material use and the ability to make educational regulations based on individual awareness academically"*.

As per the privacy of the opinions of preservice teachers, their names were coded while citing. Accordingly, the preservice teachers **who had taken the course** were coded "P", and every preservice teacher was given a number with their code letter. In this part, questions from the interview form were grouped in accordance with the sub-questions and findings were submitted.

When asked if they had a hearing impaired relative, P2, P3, P6 and P14 from Guidance and Counseling stated that they had a hearing impaired relative. When having a hearing impaired relative is associated to reason of enrolling in sign language course, participants' reasons for preferring sign language course are as follow: P2 for helping the hearing impaired relative; P3 for supporting social participation, P6 for communicating with them; P14 for communicating with his relative and other hearing impaired individuals in the society. The preservice teacher who studied Guidance and Counseling had taken 3 hours of elective sign language course per week while the other preservice teachers had taken 2 hours of elective course. Table 3 shows the main themes developed from the opinions of the preservice teachers in accordance with the departments they study

### Opinions about Turkish Sign Language

Table 3

*Opinions of the Preservice Teachers in Accordance with the Departments They Study*

Themes	Guidance and Counseling	Primary Science Teaching	CEIT	Primary School Teaching	Total
1. Turkish Sign Language is helpful in daily communication process	7	10	8	2	27
2. Communication with the family and close environment	1	2	0	0	3
3. Necessity in social life-interest	2	1	4	5	12
4. Need for the academic knowledge and professional competency	5	6	6	3	20
Total	15	19	18	10	62

As stated in table 3, of the 62 preservice teachers, 15 study Guidance and Counseling, 19 study Primary Science Teaching, 18 study CEIT, and 10 study Primary School Teaching. While 7 of Guidance and Counseling students, 10 of Primary Science Teaching students, 8 of CEIT students and 2 of Primary School Teaching students thought that sign language is helpful in daily communication process, 1 from Guidance and Counseling and 2 from Primary Science Teaching stated opinion about the contribution of sign language to the communication with hearing impaired individuals in the family or close environment. 2 from Guidance and Counseling, 1 from Primary Science Teaching, 4 from CEIT and 5 from Primary School Teaching preferred sign language course because of its necessity in social life and their interest. These students also believe that sign language is a legal right for the hearing impaired individuals and it will increase their own social participation. 5 from Guidance and Counseling, 6 from Primary Science Teaching, 6 from CEIT and 3 participants from Primary School Teaching stated opinion about the academic necessity for the sign language and its contribution to their professional competency. As a result, the preservice teachers preferred sign language because it will contribute to both their academic and social lives.

### Opinions about the Sign Language Competency and Use in Daily Life

Table 4 shows the opinions of the participants about the use of sign language in daily life and the level of their competency in this field after taking the sign language course.

Table 4

*Opinions of the preservice teachers about the use of sign language in daily life and their level of their competency in this field*

	Guidance and Counseling	Primary Science Teaching	CEIT	Primary School Teaching
<b>Use of Sign Language</b>				
1. I haven't used sign language	11	13	11	10
2. I have used sign language	4	6	7	0
<b>Competency Perception Related to Sign Language</b>				
1. I used it with the hearing impaired/or in daily life	8	10	8	7
2. I can practice it when I meet a hearing impaired	7	9	10	3
<b>When I become a teacher</b>				
1. I can use it at school	11	15	15	7
2. No, I need to improve it	4	4	3	3

As stated in Table 4, some of the students except for the primary school teaching students stated that they used sign language in daily life after they had taken sign language course (Of all of Guidance and Counseling students, 11 used, 4 didn't use; of 19 Primary Science Teaching students, 13 didn't use, 6 used; of 18 CEIT students, 11 didn't use, 7 used). When their opinions about the sign language use in schools and their competency for using sign language are asked, 15 students from Guidance and Counseling stated that they could use sign language when they met a hearing impaired individual or to practice in daily life; 11 stated that they could use it at school when they became teachers. While all of the preservice teachers stated opinions as "*I have the competency to use sing language in daily life*", it is remarkable that some preservice teachers stated that they needed to receive different education for the academic use. 11 from Guidance and Counseling, 15 from Primary Science Teaching, 15 from CEIT and 7 from Primary School Teaching stated that they could academically use sign language at schools. The opinions about the necessity for the teachers to know sign language at school is generally in accordance with the academic support dimension. Especially the opinions of the Primary School Teaching and Guidance and Counseling students are as follow: While P52, P54, P55, P56, P57, P58 from Primary School Teaching stated that the academic support related to the every field in childhood, so they should improve their competency to use sign language, Guidance and Counseling - P11, P13,

P15 stated that *"They think sign language use is highly important for the counseling process of the students, the hearing impaired students and the teachers can overcome the communication problems between them"*.

### **Opinions about the Turkish Sign Language Education in Higher Education**

The preservice teachers were asked to state their opinions about conducting sign language practices more systematically in higher education. The data obtained is described in Table 5.

Table 5  
*Opinions and Suggestions of the Preservice Teachers about the Turkish Sign Language Education in Universities*

Suggestions	Guidance and Counseling	Primary Science Teaching	CEIT	Primary School Teaching	Total
1. Applied/ intermittent education	5	11	7	6	29
2. Compulsory mutual course	10	8	11	4	33
Total	15	19	18	10	62

According to Table 5, a great majority of the group think that the sign language course should be a compulsory course. The students who think that the sign language should be included in the program regardless of the department and faculty stated that the courses should be conducted as applied and based on the skills intermittently. 10 students from Guidance and Counseling, 8 from Primary Science Teaching, 11 from CEIT, 4 from Primary School Teaching suggested that sign language should be a compulsory course. P38, P41 and P44 from CEIT stated that *"sign language is highly important for our department because while the teacher and the student need support for the technological literacy, this situation is more crucial for the students with hearing impairment. As our course is a course with visual richness, they can add theoretical courses first and applied courses then"*. Besides, P38 stated *"it is a legal right for the students"*, P44 stated *"sign language enable accessibility for the information and participation in the educational environments"*.

The preservice students suggested to the students who have received sign language education in university to practice in general education schools (5 from Guidance and Counseling, 11

from Primary Science Teaching, 7 from CEIT and 6 from Primary School Teaching). Another important finding is that 16 of 18 CEIT students think that appointment priority to the deaf schools should be given to the teachers who are competent enough to use sign language in the courses.

### **Opinions about that the Quality of Sign Language Education in Higher Education Should be Improved**

It was asked what kind of support should the academic members and the students in the universities receive to make the sign language educations more qualified and the data obtained is shown in Table 6.

Table 6  
*Opinions and Suggestions of the Preservice Teachers about the Sign Language Education Educational Regulations in Universities*

For the academic member and the student	Guidance and Counseling	Primary Science Teaching	CEIT	Primary School Teaching	Total
1. A syllabus can be prepared	6	8	4	0	18
2. Appropriate environment Material support IE individual with video priority, technological support	9	11	14	10	44
Total	15	19	18	10	

As shown in Table 6, the preservice teachers drew attention that both the teachers who give the lesson and the students who take the lesson need support. Firstly, 18 preservice teachers stated that sign language course programs are needed, 44 stated that appropriate physical environment, material support, course videos, applied and technological support for the hearing impaired individuals should be provided.

In accordance with the findings of the study, for main themes were created: "*Helpful in the daily communication process*", "*Communication with the hearing impaired in the family and close environment*", "*Necessity in social life-interest*" and "*Professional competency*". The answers of the participants to the questions were quoted under every theme title. The themes obtained as a result of content analysis regarding questions were shown in Table 2. Related to

the questions from the interview, each theme was described below by giving examples of the preservice teachers' opinions.

### **1-What are the opinions of the preservice teachers who attended to elective sign language course related to the effect of sign language on the communication process?**

The question "What are the opinions of the preservice teachers who attended to elective sign language course related to the effect of sign language on the communication process?" was explained in accordance with the first theme. The theme "helpful in daily communication process" consisted of two sub-themes: "*Effect of the Turkish Sign Language to the daily life*", and "*Opinions about use and confidence of knowing a language*". 25 of 27 preservice teachers stated opinion on the sub-theme "*Opinions about the Effect of the Turkish Sign Language to the daily life*", and 18 participants stated opinion on the sub-theme "*Opinions about use and confidence of knowing a language*". When the reasons for preferring sign language course, how they had heard about this course, how it affected the daily communication progress were asked, the mutual opinion of a great majority is that knowing and using sign language provide an advantage in social life (P2, P6, P8, P9, P11, P13, P14, P15, P17, P25, P26, P28, P29, P31, P34, P35, P36, P42, P43, P45, P47, P48, P52, P53, P54, P56, P57, P59, P61, P62). The preservice teachers stated that sign language supports the communication with the hearing impaired individuals. For example:

*"My downstairs neighbor is a hearing impaired individual. I was able to say hello before. However, my mother came last day, I introduced my mother to that neighbor."* (Guidance and Counseling -P6)

*"Yes, I have. The individual and the people around him create a sign language that they will be able to understand and they communicate that way. I usually talk to that person, too."* (Primary Science Teaching-P17)

*"Doing activities that engage the different learning areas of the students in schools can contribute to the development of intelligence..."* (Primary Science Teaching 25)

The participants who preferred sign language to communicate with the hearing impaired relatives are followed by the ones who preferred it because they believed it would contribute

to the communication skills in social and professional life. The participants who stated that they were willing to learn a new language stated the reasons to prefer sign language as follow:

*"I realized that I had been too insensitive about this issue while there were lots of people who had to communicate with sign language even though I didn't have hearing impaired individuals in my environment. I thought I could support at least these people and I chose this course."* (Guidance and Counseling-P9)

*"I had always been willing to learn this language. When I see someone who uses sign language on the bus or on TV, I am curious about how they do that. To understand the worlds of the people who live with this impairment is the most important factor, I think."* (Primary Science Teaching-P33)

*"I haven't met someone with hearing impairment yet but I think it will serve someday in the future and I will be able to help people."* (Primary Science Teaching-P17)

As can be seen, the students who took sign language course stated that they were willing to continue the course and they would be able to use it to communicate when they became teachers. They believe that they can support the hearing impaired individuals in daily life.

## **2. What are the opinions of the preservice teachers who attended to elective sign language course about the reasons to prefer sign language course?**

What are the opinions of the preservice teachers who attended to elective sign language course about preferring the sign language course? The question was handled within the second and third themes. The second theme is *Communication of the participant with the hearing impaired in the family and close environment* and consists of sub-themes *"Opinions about the positive contribution to the social life"* and *"Opinions about the studies on the sign language awareness"*. A great majority of the participants who stated opinions on this theme explained that they refrained from communicating with the hearing impaired individuals when they meet them and they were not able to create a social environment for their hearing impaired friends in the school and dormitory life (P1, P2, P4, P6, P8, P9, P12, P14, P16, P17, P18, P21, P29, P34, P35, P36, P38, P39, P41, P42, P43, P44, P51, P52, P53, P55).

The statements of the participants who stated that their skills for starting and continuing communication in the environments with the hearing impaired individuals after they had started taking sign language course are:

*"Realizing that I was able to meet with a hearing impaired people in a cafe and have a talk with him made me feel much better. I can say that it increased the number of my friends."* (Primary Science Teaching-P18)

*"I think that my communication process was affected positively in the social life after I had taken sign language education. I refrained from communicating with a hearing impaired individual because I didn't know what to do when I meet them. But, after I took the course, I think that I will be able to communicate more easily."* (Primary Science Teaching-P29)

*"I was not able to help hearing impaired people in social life because I didn't know sign language. I had a hearing impaired friend. I was not able to help him. Now, I try to have a talk with my hearing impaired friends and help them as much as I can."* (Primary Science Teaching-P34)

They stated that this situation increased their self-confidence to a higher level.

The third theme *"Necessity in social life-interest"* consisted of the sub-themes *"Opinions about that it will increase their own social participation"* and *"Opinions about that it is a legal right for the hearing impaired individuals"*.

A great majority of the participants who chose the course stated that the success in the communication process of a hearing impaired individual is not only limited to that person but the communication skills of the people with normal hearing are also important. The students stated that their communication skills were improved positively after they had learned sign language.

*"Yes. My normally hearing friends were happy to learn some concepts I taught them. Actually, every individual wants to take this course. My friends in other faculties said that I was very lucky to take this lesson"*. (Guidance and Counseling-P4)

*"Yes, I had. I had a conversation with a hearing impaired individual in a cafe. A cafe in the university."* (Primary Science Teaching-P21)

*"Yes, I had a friend when I went back to home. My friend has hearing impairment and I saw that I was able to use what I had learned, that made me so happy."* (Primary Science Teaching-P34)

The preservice teachers drew attention that they became more aware of their communication competency as they start using sign language and they used gestures, facial expressions and body language more effectively. For example:

*"I wasn't aware that the facial expressions were this effective before. I think that supporting the communication with gestures and facial expressions provides a more effective communication environment."* (Guidance and Counseling-P2)

*"I see myself a step further than my other friends because they didn't take this course."(the quota for elective sign language course is limited to 20 people)"* (Guidance and Counseling-P4)

*"My effectiveness in sign language use have been increased."* (Guidance and Counseling-P6)

The preservice teachers who believe that they contribute to the social awareness studies as they start taking the course stated that their close environment is impressed when they have an opportunity to practice sign language in daily life and they arouse curiosity. For example:

*"I talk about the sign language skills I obtained in my social environment. The curiosity and interest for sign language have been increased in my environment. I have not met a hearing impaired individual yet. I would like to communicate with them if I ever meet them."* (Guidance and Counseling-P8)

*"I realised the importance of gestures and facial expressions and I used them much more in daily life."* (Guidance and Counseling-P9)

*"I try to sing every song I hear with the sign language. Besides, I try to translate the words I hear into the sign language and it is very nice to teach it to my friends who don't know this language."* (Guidance and Counseling-P14)

The participants who stated opinions about that being able to use sign language both in social life and as a preservice teacher is a richness stated that the teachers who know sign language should have the appointment priority for the deaf schools (P35, P36, P37, P38, P39, P41, P42, P43, P44, P45, P46, P47, P48, P49, P50, P51, P52), that they believe it will be effective in supporting the academic and social participation especially when teaching the children (P52, P53, P54, P55, P56, P57, P58, P59, P60, P61, P62).

- 3. What are the opinions of the preservice teachers who attended to elective sign language course about the use of Turkish Sign Language in educational environments?**
- 4. What are the opinions of the preservice teachers who attended to elective sign language course about the effect of sign language on their vocational career?**
- 5. What are the opinions of the preservice teachers who attended to elective sign language course about their competency for using the Turkish Sign Language in their academic and daily lives?**

The research questions numbered 3, 4 and 5 were described under the fourth theme. The fourth main theme *"Need for academic knowledge and professional competency"* consists of sub-themes *"Opinions on the positive contribution of sign language use to the professional competency of a teacher"*, and *"the material use and the ability to make educational regulations based on individual awareness academically"*.

When the preservice teachers were asked about the sign language education in universities, they stated opinions about the mutual syllabus, written and printed materials, technological support, media support, duration of the course and its context. The preservice teachers who think that the right to education is as important as the right to live, mentioned that sign language courses shouldn't be only given in the faculty of education, it should be also taught in other departments and faculties of the higher education institutions. About the regulations related to the courses and the support that will be provided:

*"More technological support can be provided. We can study with the micro education plans. In this way, we can realise our deficiencies more easily."*  
(Guidance and Counseling-P9)

*"Students should be encouraged, the courses should be introduced more."*  
(Guidance and Counseling-P12) "

*"The number of the courses should be increased, it can be taught with in-service training, courses should be opened, the students should be encouraged and the usage data should be multiplied and stimulated"* (Psychological Guidance and Counseling-P14)

*"The price of the sign language books should be appropriate and the books should be popularized. More sign language teachers should be trained"* (CEIT-P44)

*"Sign language should be practiced with the hearing impaired individuals and the schools for deaf should be visited" (Primary School Teaching-P56)*

These participants also mentioned that it is necessary to provide technological support in order to prepare clear, understandable and practical course materials, publish a TV channel that broadcast in sign language in universities, prepare enriched content practices and to include local and national projects (P1, P2, P3, P4, P7, P8, P9, P12, P14, P17, P19, P20, P21, P24, P25, P30, P31, P32, P33, P35, P36, P44).

The participants who stated that the sign language courses contribute to the teacher's competency (P7, P9, P10, P11, P13, P14, P23, P26, P27, P31, P32, P33, P43, P53, P54, P56, P61, P62) think that the competency for sign language use should be improved. For this reason, they drew attention to the popularization of course books, program and materials and making them appropriate for the users. They also stated that related digital content should be included in the mobile phones, i-phone and tablets, applications related to sign language should be created and these applications should be recorded and monitored in the ethically (P3, P5, P6, P9, P11, P12, P13, P14, P19, P20, P21, P22, P23, P24, P25, P26, P31, P32, P33, P34, P35, P36, P37, P38, P39, P41, P42, P44, P45, P46, P48, P49, P50, P51, P52, P53, P54, P55, P56). Related to sign language use:

*"Of course I am going to use it if I need to. I have to practice for the competency. I can improve it with practice." (Guidance and Counseling-P7)*

*"Of course I think of using it in an environment it is necessary. Also, I can improve it and become a sign language instructor." (Guidance and Counseling-P14)*

*"I think. Especially if I have a hearing impaired student, I will be more interested in it." (Primary Science Teaching-P17)*

*"I would like to use it in an appropriate environment. I see myself competent." (Primary Science Teaching-P18)*

*"I think of using and teaching it." (Primary Science Teaching-P27)*

*"Yes, I think. I taught everything I learned to my family and the people around me. Because of the awareness, I searched for the words (unknown) I was curious about. This course became permanent with frequent repetitions and I see myself as competent." (Primary Science Teaching-P33)*

*"Yes, I am going to use it in the school I am appointed. I see myself competent. I would be good for not forgetting it." (Primary Science Teaching-P34)*

*"I think it can be expanded to two terms instead of being a one-term course. Because I need to practice more." (Primary Science Teaching-P26)*

These participants also emphasized the need for the practicing sign language. The participants who think that using sign language will improve the communication and effective teaching skills of the teacher believe that they will make a professional difference in the classes in which sign language is used (P7, P14, P17, P18, P19, P21, P23, P26, P27, P28, P29, P31, P34, P38, P39, P39, P41). Related to the sign language education:

*"The possibility of meeting someone with hearing impairment on the road or having a hearing impaired student, and the possibility of not being able to communicate with them or not understanding them made me want to learn this language." (Primary Science Teaching-P33)*

*"No. Because this is not directly related to any faculty, department or field and every department should have the capacity and the opportunity to take this course" (Guidance and Counseling-P7)*

*"I think it should be included in every field, just like Turkish language, besides, even though it is not taught in detail, it should be taught within the basic communication skills." (Guidance and Counseling-P14)*

*"It should be taught to different departments in accordance with the different field knowledge. Because the terms used by CEIT students may not be used by the Guidance and Counseling department students. But, in fact, it would be beneficial to learn the terms used in the other fields in order to have an idea about every subject." (CEIT-P43)*

Another important finding is that the preservice teachers think that sign language should be a compulsory course in the higher education institutions (P1-15 and P53-62 (all students) from Guidance and Counseling and Primary School Teaching, P16-P25 from the Department of Science and all students from CEIT except for P37-P38P52). In accordance with the compulsory course regulations, they stated that the sign language course should be given in at least two academic terms as 1st or 2nd year (Guidance and Counseling P1, P2, P3, P4, P6, P7, P8, P9, P10, P11, Primary Science Teaching P17, P18, P19, P20, P28, P29, P32, P33, P34, CEIT P35, P36, P39, P40, P41, P42, P43, P44 and all students from Primary School Teaching), without a quota limitation (Primary Science Teaching P17, P18 and Primary School Teaching P42) and it should be **"Basic Sign Language"** in one term, and

*"Professional Sign Language"* in the other term. The preservice teachers also think that the sign language education should be started at early ages, it can be given as "Basic Sign Language Education" at the educational level, "Basic Sign Language Education" in universities and "Professional Sign Language Education" in the internship period and when they start teaching. The students stated that practice durations should be increased especially in the education, communication and medical faculties and the academic members should be trained among the specialists who teach in the faculty in which the course will be given.

### **Results and Discussion**

Opinions of the preservice teachers who attended elective sign language course were described in a total of 98 sub-categories related to their reasons for choosing sign language course, effect of the sign language on the communication process, use of sign language in educational environments, its effect on their vocational career, their competency to use sign language in their academic and daily lives. The data obtained from the interviews consists of four main themes: *"Turkish Sign Language is helpful in daily communication process"*, *"Communication of the participant with the hearing impaired in the family or close environment"*, *"Necessity (interest) for the Turkish Sign Language"* and *"Academic Efficacy of the Turkish Sign Language"*. According to the opinions that created this themes, the reasons for participating the sign language course differs for the preservice teachers, the main reason is especially the need for education and to use it effectively in social life.

The preservice teachers who stated that the social media advertisements impressed them with the increase in the interest for the sign language in the society think that it contributes to the hearing impaired individuals and the individuals who use sign language in terms of interpersonal interaction, effective use of sign language and sense of confidence. Piştav-Akmeşe (2016) reached a similar finding in the study conducted with 190 individuals who had enrolled in a basic sign language certification program. In the study in which the sign language education and the competency of sign language teachers were examined; The participants stated that use of sign language increased social participation in social life, making sign language use widespread would increase the employment of hearing impaired

individuals in public and private enterprises and institutions. These findings are thought to be highly important in our day in which the type of professional knowledge and skills that will be taught in teacher training programs and after-graduation competency are discussed. Thus, communication skills of teachers, how they use body language and their self-confidence are effective on their academic performance. The preservice teachers who mentioned that the sign language educations should be given in the schools in the scope of a certain plan and program emphasized the contribution of knowing sign language to the individuals with normal hearing. It is thought to contribute to starting interpersonal communication and using the body language effectively in social life. Besides, they stated that a cooperation should be between the family, school and teacher; sign language is highly important in the learning environments. Another finding that draws attention as much as the opinions about the social effects is that use of sign language in the schools will provide academic support for the hearing impaired students. While all preservice teachers participated in the study think they were competent to use sign language in daily life, some of them stated that they needed to improve themselves for academic usage competency. This result states that giving a skill-based education in the undergraduate programs of the faculty of education is as important as the academic knowledge.

**The first theme of the study "Helpful in daily communication process"** consists of sub-themes "*Effect of the Turkish Sign Language to the daily life*", and "*Opinions about use and confidence of knowing a language*". The participants who handle helpfulness of sign language to the communication under "*usage in social life and academic use*" dimension suggested that the course should be compulsory for higher education in order to improve academic use competency. They stated that the course should be included in at least 2 terms, content should be prepared for professional use, it should be enriched in terms of the course book and educational material. The students who stated that it could be included in every department and faculty as a compulsory course suggested that the courses should be applied. By drawing attention to the importance of that the preservice teachers who have received sign language education in universities should practice in general education schools, they suggested that there should be appointment priority for the teachers who actively use sign language to the schools for the deaf. They also stated that the characteristics such as the education level, reasons for participation, the field of usage, profession type, status of participating in another course before taking the sign language course in higher education are

important. This finding matches with the finding which stated the sign language should include both the theoretic and application dimensions intensely, the education level of the students should be determined by taking their field of study into account (Piştav-Akmeşe, 2016).

As can be seen, the preservice teachers who stated that the sign language should be taught at early ages believe that the use of sign language in schools will be able to increase both the social and academic participation of the hearing impaired individuals. The results of the studies conducted on hearing impaired individuals and the individuals who directly communicated with hearing impaired individuals from different ages and areas showed that sign language 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 and was of vital significance. (Hayes, Geers, Treiman & Moog, 2009). The sign language use of the hearing impaired individuals who couldn't benefit from early intervention auditory verbal education opportunities is nearly 100% in communication (Parlak, 2011). It is important to teach sign language at early ages just like normal language education. In the study which examined the interaction of hearing impaired individuals in the family and sign language use related to language development, it has been stated that the parents communicate with the hearing impaired children less than the normally hearing children and shows less verbal approaches. Usage of American Sign Language in a home where English was spoken increased parent children interaction, supported it positively and the family made a progress in creating common meaning (Blackburn, 1998).

**The second theme** of the study is "*Communication of the participant with the hearing impaired in the family and close environment*" and consists of sub-themes "*Opinions about the positive contribution to the social life*" and "*Opinions about the studies on the sign language awareness*". The opinions stated under this theme are related to the effect of sign language to the communication, social interaction processes. The participants stated that they became more aware of their communication competency when they started learning sign language and they used gestures, facial expressions and body language more effectively. In the literature, the attention was drawn to the relation between sign language knowledge competency, usage and effective communication. It has been stated that the children who had grown up in families where sign language was used could express their feelings better and

had a higher level of confidence in their communication (Gongora & Farkas, 2009; Vallatton, 2008). Felzer (1998) drew attention to that teaching sign language to the children with normal hearing as a second language contributed to their social development and communication skills positively. This finding matches with the opinion that the sign language education of the preservice teachers contributes to their own social lives. Vallotton (2009-2011) stated that the children could understand the behaviors of the adults more easily and quickly in environments where sign language was used. On the other hand, most of the adults who had enrolled in sign language courses thought that knowing and actively using sign language affected their professional development positively and would be an advantage in social life. Each individual has the option to start, continue and finish communication. Most of the people attending to sign language course are hearing impaired individuals and they feel uneasy to start communication with the individuals with normal hearing as they think they won't be able to be understood. When viewed from this aspect, making sign language use widespread can affect the communication starting attempts of the hearing impaired individuals positively (Piştav-Akmeşe, 2016).

*In the third theme*, the preservice teachers evaluated sign language education in accordance with "*opinions about increasing participation in social life and a legal right for hearing impaired individuals*". In the literature, it has been stated in the studies which drew attention to the relation between hearing aid use and education that it is necessary to diagnose the hearing impairment early on, implement a hearing aid as soon as possible and start education to enable hearing impaired individuals to gain spoken language and speech skills effectively (Akin et.al, 2009; Geers et.al, 2008; Pistav-Akmese & Acarlar, 2016). When these needs are not met, many of hearing impaired individuals isolates themselves from the society and a great majority of them do not benefit from social services as their ages increase (Parlak 2011). Although this condition is tried to be avoided by the legal regulations such as sign language use, widespreading it, including it in educational environments, the researches on awareness, acceptance of the disabled individual and attitude change clearly show that the individuals with and without disability live in the different areas of the society. It has been thought that making sign language widespread in different environments would be positive for the hearing impaired individuals. Examples of the researches conducted related to the participation of hearing impaired individuals to the social life, obtaining services, communication preferences, tracking processes in employment and medical services and

which support this opinion can be seen in the literature (Gürboğa & Kargın, 2003, Koennigsfeld, Beukelman & Stoefen-Fisher, 1993; Parlak, 2011; Piştav-Akmeşe, 2016).

Sign language is one of the communication methods the hearing impaired individuals often prefer. It has been stated that they demand help from the people who know sign language firstly to get over a problem they face and they communicate more easily in the environments in which sign language is used (Parlak, 2011). When it is asked to the executives of two factories in which 156 hearing impaired individuals were employed how they hire the employees who have hearing lose they draw attention to the importance of sign language by saying: *We show them around the factory before employment. We show them the process conducted in the departments. We pay attention to that they work in the departments they want. They prefer the departments in which many hearing impaired individuals work.*" When the same executives were asked how they communicate with the hearing impaired employees, they said: "If we realize that we cannot communicate with the hearing impaired employees by writing and lip-reading, we get help from the employees who use sign language actively." (Parlak, 2011). Gürboğa & Kargın (2003) stated that hearing impaired individuals often used sign language with their family, while shopping, in public transportation, in work to understand communication and express themselves. In another study, the opinion of the preservice teachers about increasing the hours of sign language course in higher education institutions is supported by the literature. Piştav-Akmeşe (2016) included the opinions of the people who had received sign language education into the research. The participants who think that it is difficult for any individual to have to express themselves draw attention to that hearing impairment makes people isolate themselves from the society. The participants mentioned that it was important to use sign language with the hearing impaired individuals in daily life and they stated that the sign language can be improved by practice as well as receiving an education. *In the same study, the relationship between the increase in the sign language usage and the social media is remarkable. A great majority of the people who participated in the education stated that Turkish Radio and Television Corporation (TRT) and other national channels should cooperate with the Ministry of National Education for the hearing impaired individuals. They especially suggested the cooperation of the academicians who work in the fields such as special education, linguistics, audiology, otolaryngology, language and speech therapy with the personnel who work in the service sector in the departments such as cartoon and animation,*

*visual design, graphic, media consultancy in order to eliminate the lack of written and visual materials in schools.* The course materials can be prepared clear, understandable and with a fluent language, visually enriched content can be included. With the improvement of materials based on technology, sign language acquisition in early period can be easier. The programs prepared can be made widespread via mobile phones, i-phones, i-pads and digital devices. The materials which will be prepared by taking the characteristics of the age group into account are thought to be able to contribute to the regulations related to the learning and teaching in schools.

In this study, the opinions about the effect of sign language in daily life and learning environments were examined as "*academic support, educational regulations, course content and material usage*". In the literature, when the communication preferences of 12 hearing impaired university students between the ages of 17-22 (all of whom had hearing aids at late ages and had not received special education), it was stated that the people the young individuals received help in solving their problems used total communication based on lip-reading, written and verbal language in addition to knowing sign language very well (Parlak, 2011). This result explains the importance of making sign language usage widespread in higher education in social and academic sense. Because the hearing impaired adults often use sign language with their family members, while shopping, in friendship, in work to understand communication and express themselves (Gürboğa & Kargın, 2003).

In a study conducted by Erting Kuntze et.al (2002), interaction of the 60 hearing impaired children who had been observed at home until the age of 5 with the 6 normally hearing and 5 hearing impaired teachers in the school environment was examined. It was stated that studying with the teachers who had a good command of sign language when they started the school program significantly affected the academic success and improved their communication and social skills and the children benefited from book sharing activity using sign language and they gained self-confidence and social skill competency. While the children tended to communicate with the hearing impaired teachers more often in the school courses at the beginning, they started to get close to the teachers with normal hearing but who used sign language as time progressed. It was stated that sign language contributed to learning and teaching the curriculum to the children with sign language provided a basis for academic and social success in adulthood. It is highly significant to provide better education

opportunities for the hearing impaired adults and to include them in the society as teachers in order to make them active preservice teachers of the programs to be prepared and applied. They stated opinions about that the preservice teachers who received sign language education should be included in the education of the hearing impaired individuals in the education programs. It is seen that including hearing impaired individuals in the educations is significant for both increasing the effectiveness of sign language programs and uniting people. In the literature there have been opinions related to that the families, preschool teachers and primary school teachers should participate in the sign language educations and be educated about early diagnosis, communicating with children and observation techniques (Gongora & Farkas, 2009; Vallotton, 2009); children's learning sign language as a second language is based on the effective and right use of sign language by the adults around them (Goodwyn & Acredolo, 1993; Felzer, 1998; Gongora & Farkas, 2009). The quality of the sign language education is related to the competency of the sign language teacher. The preservice teachers stated that the education should be given by the specialist academic members who taught in the departments they studied. They also stated that the teacher should have the theory and practical knowledge related to linguistics, special education, education of the hearing impaired individuals and communication, the postgraduate departments related only to sign language should be opened as well as giving sign language courses on the undergraduate level. So, they underlined that the experts who will be able to work in this field can be chosen from among the educated people who graduated from at least undergraduate or postgraduate programs. It can be seen that the adults who had completed "Basic Sign Language Certification Program" in institutions other than a higher education institution have the similar opinions. Piştav-Akmeşe (2016) stated that an instructor who teaches sign language should have at least bachelor's degree and take lessons in the fields of adult education, educational psychology, language and expression, using Turkish in an effective and right way, spelling rules. It can be said that the sign language education given in both higher education institutions and other enterprises and institutions should be given by experts under a mutual program.

This study has a great importance because it will be able to contribute to the theories and practices. The opinions of the preservice teachers related to that sign language education should be given by the experts of the field under a program based on scientific and up-to-date information. This result requires a discussion on determining the quality of the

programs that will be prepared for sign language education and what kind of competencies sign language teachers should have. However, there have not been any programs which teach Turkish Sign Language (TSL) at universities in our country; but as of 2013, it has begun being added to hearing impaired teaching programs as a compulsory course and to some undergraduate programs as an elective course (Kemaloğlu 2014b). Turkish Sign Language became a language which was recognized by Grand National Assembly of Turkey, taught in various courses and universities as an elective course in 2014 though it was late. It was included in the compulsory courses of Special Education Teaching Department in the second class in the 2016-2017 academic year. Many researchers from different fields have been interested in this language and started conducting various projects. It became an elective course for all departments of Ege University Faculty of Education in 2015-2016 academic year and a sign language dictionary was brought in the field by the students of CEIT with the project "*Hearing hands and seeing eyes*" ([www.konusanelerduyangozler.com/](http://www.konusanelerduyangozler.com/)). Besides, with a project which was supported by the Ministry of Family and Social Policies, "*Turkish Sign Language Linguistics Book*" was prepared by Dikyuva, Makaroğlu & Arık (2015) and studies for the Turkish Sign Language model dictionary have been continuing (<http://eyh.aile.gov.tr/>). Zeynep Oral's "Translation of Turkish Sign Language" book is the book in the literature related to the sign language translation (Oral, 2016).

Another characteristic of the study which was thought to be important is the opinions of the preservice teachers related to the usage competency for sign language in terms of daily life and professional career. 62 preservice teachers who are studying in four different departments (Guidance and Counseling, Primary Science Teaching, Computer Education and Instructional Technologies, Primary School Teaching) who had completed sign language education stated what kind of practices were needed to use sign language in their professional career related to the departments they studied in and that the methods for effective use of sign language should be taught. This result shows similarities with the opinions of the participants who had completed and were still continuing sign language education certification program by Piştav-Akmeşe (2016). The preservice teachers stated in the study that sign language education was not transferring sign language education by an educator based on only one education program. Besides, opinions about having materials for practice, their will for being and active user in the social life during the program, that findings should be created by taking the level

of education they were receiving or had received into account, that the practices should be transferred into videos and that the teachers can evaluate students with these videos match with the findings in the study of Piştav-Akmeşe (2016).

The opinions of the preservice teachers who participated in the study about the sign language education are grouped around mutual syllabus, written and printed course materials, technological support, media support, course duration and content. In this sense, the opinions of the preservice teachers who will be responsible for the education of hearing impaired individuals are important for the curriculum and other materials which are prepared by the Ministry of National Education. On the other hand, the preservice teachers think that the teachers who know sign language and will be able to use it in the education process effectively should have appointment priority for schools for the deaf. So, it is mandatory to evaluate the sign language use and application skills of the teachers in accordance with certain criteria. The application skills of the teachers can be evaluated by the commissions which would consist of the academicians from linguistics, hearing impaired teaching, special education fields in the pre-service period. As another step, the teachers can be told that they should take the preferences of the hearing impaired students and families into account about the usage of sign language during the courses. It should be born in mind that sign language is only one of the practices in the education process and the education of the hearing impaired students can be supported by various educational regulations.

For example, the applications related to sign language can be placed in mobile phones, i-phones and tablets as digital content; these applications can be used by the children for the review of the course in the time out of school. User and duration details can be recorded, they can be monitored by the teacher or family and ethical measurements can be taken.

Another result is the relationship between receiving sign language and competency of the teacher. The preservice teachers stated that the first characteristic they expect from a qualified sign language education program was that it should contribute to the communication skills, effective use of gestures and facial expressions.

As a result, all these findings show that sign language course is adopted by more preservice teachers in the education faculties day by day, they are willing to learn it and think that it will

be able to contribute to their professional competency. Besides, sign language being known by the teachers is of great significance for the hearing impaired students to communicate effectively with the ones who use sign language, to become independent and productive individuals in the society as it supports the hearing impaired students and increase their academic success and life quality.

### **Suggestions**

The preservice teachers think that we should attach more importance to sign language education programs in higher education institutions. They stated that studies should be conducted to enrich the program in terms of the course book and visual materials, and to train personnel who will be able to give the course. Some suggestions were developed based on the results obtained from the research. These are:

The preservice teachers who had chosen the course for both social and academic use stated that sources and materials were required in order to study after the course. Mutual studies can be conducted and materials can be prepared related to the sign language course program in universities.

The sign language course should be compulsory and the weekly course hours should be divided into practice and theory in order to make sign language education more effective. Besides, mutual studies should be conducted with the field specialists from the faculty or from different faculties and departments such as Linguistics, Medical Faculty, Department of Otolaryngology, Audiology, Faculty of Communication, Radio, Motion Pictures and Television, Media Design Department for the quality of the materials and educational programs.

Sign language being given by the academicians will affect the communication skills, competency for the sign language use of the teachers and the quality of sign language education programs. In this regard, the sign language courses must be certainly given by the academicians who know sign language. The hearing impaired individuals should be frequently invited to the courses and an environment for the practice of sign language should be created.

During the sign language course period, a cooperation should be provided with the public and/or private schools and associations for the deaf in order to provide an opportunity to practice for the students. Application protocols should be made between the universities and the Ministry of National Education in order to enable preservice teachers to use sign language at schools.

By repeating this research which has the feature of being the first in terms of subject and purpose with other preservice teachers, results that are convenient to make generalization can be obtained.

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