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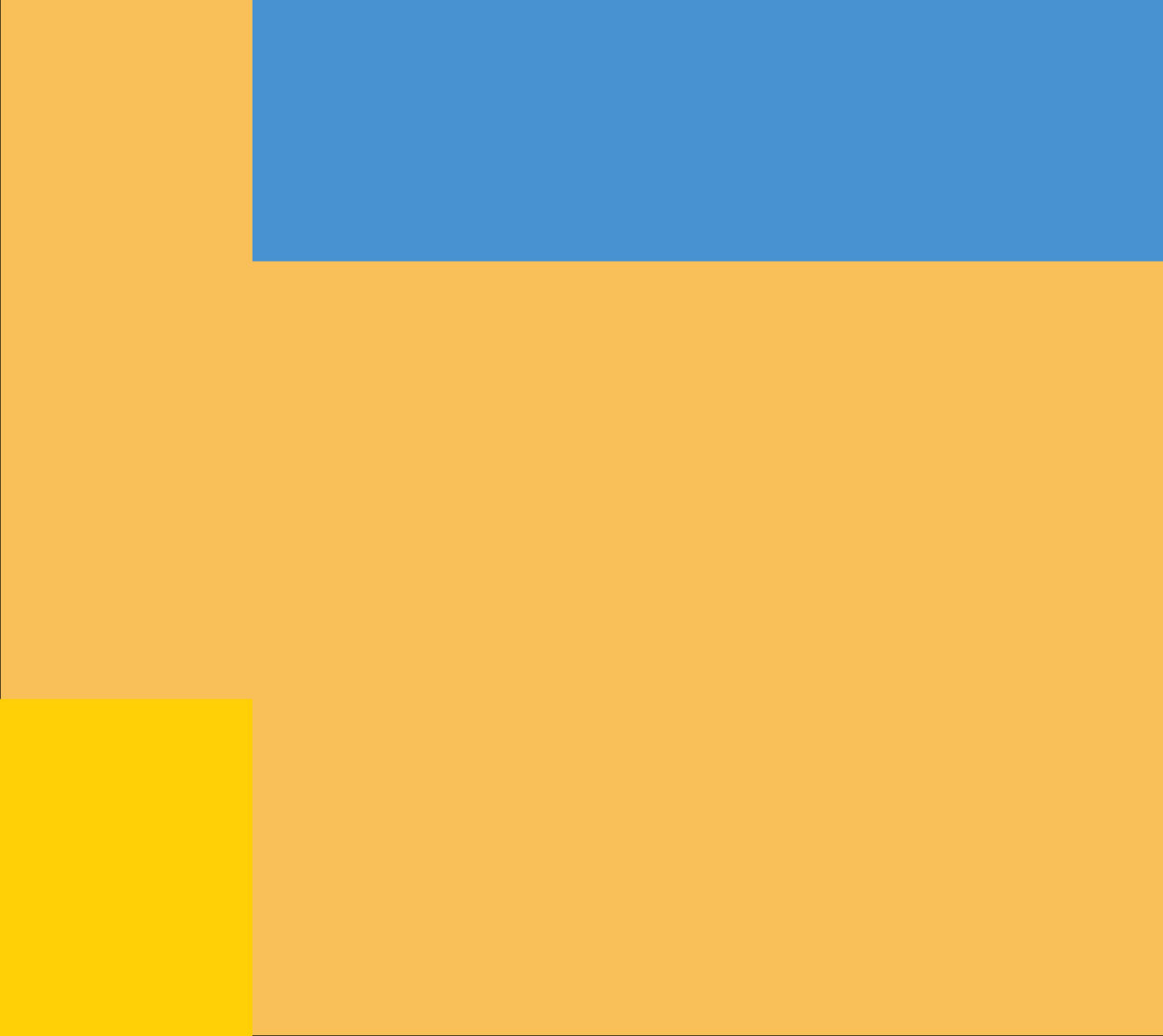
# **Communication Challenges in Inclusive Education Faced by Deaf and Non-deaf People**



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January 2022

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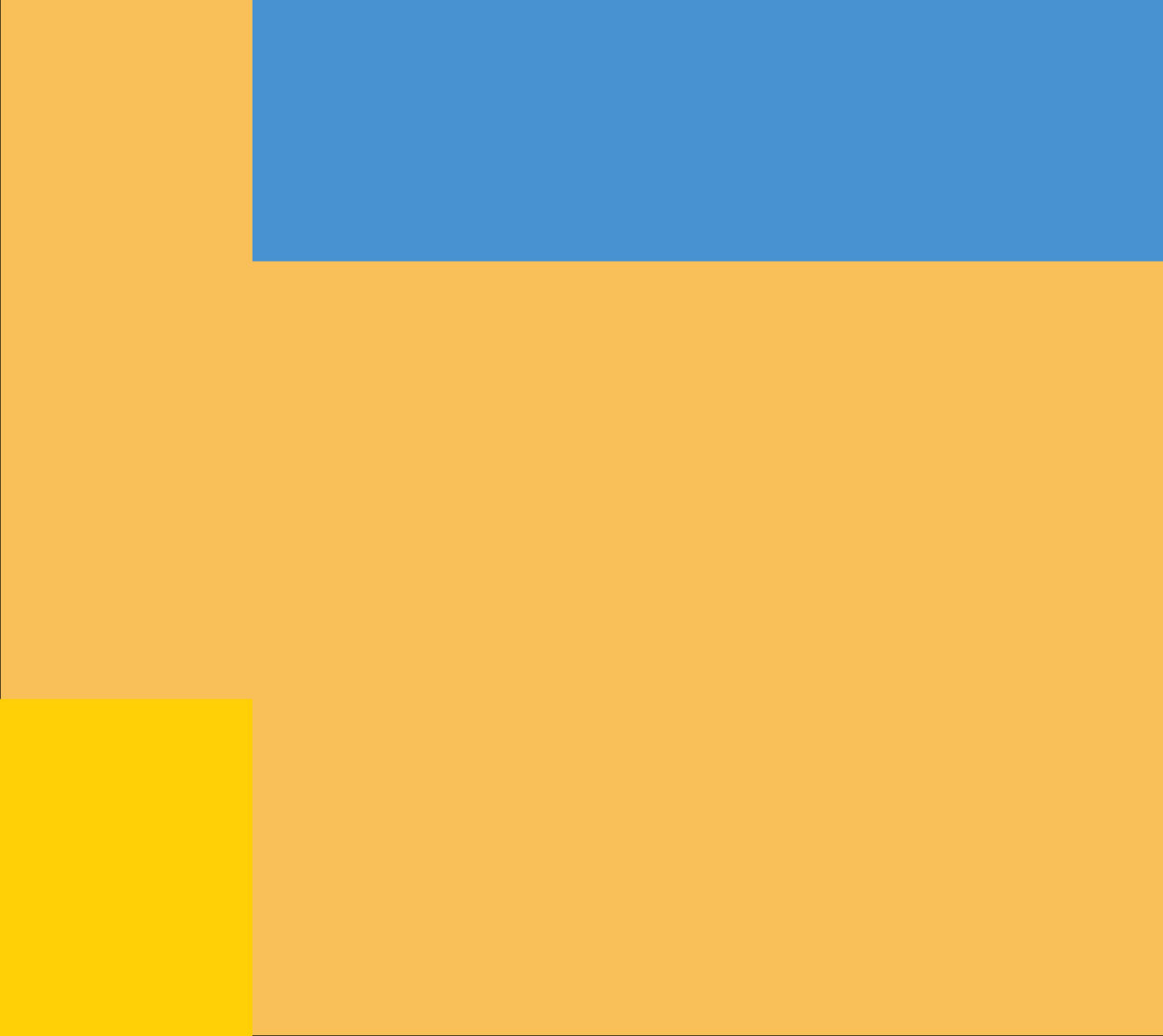
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## List of Abbreviations

<b>ASL</b>	American Sign Language
<b>CSL</b>	Cypriot Sign Language
<b>DGS</b>	German sign language (ger. Deutsche Gebärdensprache)
<b>EUD</b>	European Union of the Deaf
<b>GSL</b>	Greek Sign Language
<b>HFD</b>	Hellenic Federation of the Deaf
<b>IS</b>	International Signs
<b>IT</b>	Information Technology
<b>KEPA</b>	Disability Certification Center (gr. Κέντρο Πιστοποίησης Αναπηρίας)
<b>LBG</b>	Manually Coded German Sign Language (ger. Lautsprachbegleitende Gebärden)
<b>PSL</b>	Portuguese Sign Language
<b>SL</b>	Sign Language
<b>SSL</b>	Slovenian Sign Language (slo. Slovenski Znakovni Jezik)
<b>UN</b>	United Nations
<b>WFD</b>	World Federation of the Deaf



# 1 Introduction

Due to their hearing loss, deaf people communicate by other means, most expressive and non-limiting of which is arguably sign language. Sign language is a visually-sign language system with a particular setting, position, direction and movement of hands and fingers, and face mimicking.

People with either severe or profound hearing loss use mainly sign language as communication language and are referred to as deaf people. According to [1], in 2013, there were, globally, 138 sign languages, and in Europe, there are 47 different sign languages, excluding Makaton.

On the EU level, the European working group on the genetics of hearing impairment defined hearing level in decibels (dB) of a patient in order to classify hearing loss into four categories [1]:

- Mild hearing loss: The hearing level is between 26 and 40 dB - some difficulties following conversations, especially in a noisy environment.
- Moderate hearing loss: The hearing level is between 41 and 70 dB – the need to use a hearing aid in order to follow a conversation.
- Severe hearing loss: The hearing level is between 71 and 94 dB – the need to use very powerful hearing aids and lip-reading for a conversation.

- Profound hearing loss or deafness: The hearing level is greater than 95 dB
  - the need for lip-reading and sign language to communicate.

Additionally, also the World Health Organisation defines hearing loss using its own grading system [2].

Most deaf people find sign language a comfortable and reliable way of communication, leading to an identification with the language and with the people within this language community. The so-called deaf community has, over the years, been building its own culture, rules and language, allowing each of its members the opportunity to develop their personality freely and their own place in society.

This is a consolidated report on the work done in IO1 for the Advancing Inclusive Education Through International Sign - InSign project. This report combines and summarises the results obtained in national reports done by project partners from Cyprus [3], Germany [4], Greece [5], Portugal [6], and Slovenia [7]. For full information pertaining to any of the included nations, please refer to the original national reports.

## 1.1 General information

In this section, we present some general statistics and other information on the deaf communities in the partner countries.

### Cyprus

There is no recent official survey with statistical results where we can find the population of Deaf people in Cyprus. Based on empirical calculations, it is estimated that the number of deaf sign language users is around 700-750 people, while there is a large percentage of people with hearing loss (deaf non-sign language users); the deaf people who have lost their hearing in old age and do not use sign language.

As for the Deaf Teachers, who are appointed either in the school for the deaf or in the general public or private schools, they are not obliged to know the Cypriot Sign Language (CSL) and those of them who have knowledge of it; it is because they were personally interested to learn it. Some of them, because of the frequent contact with

the deaf students or people, learned the basics so as to communicate with them. Others had to learn how to communicate with their deaf students because the students were using very well sign language. As far as the high school teachers are concerned, they are appointed in the school for the deaf, based on the regulations that apply to all the schools of secondary education, where the knowledge of the CSL is not a precondition. That is why, during the lessons, there is an interpretation of CSL. There is no information on whether any teachers know the International sign language.

There is no clear evidence about the number of deaf in the total population, but it is estimated that there are between 750 and 1.000 deaf people in Cyprus. There are no numbers for deaf students by level and year of studies. As for the number of children 1-18 years of age, there are 250 deaf, either two-sided or one side, from which 130 are students. The number of qualified teachers is small, and most teachers for the deaf do not necessarily know the CSL because the students can communicate by lip-reading or they can partly hear by use of a hearing aid.

## Germany

According to the estimation of the German Deaf Association (Deutscher Gehörlosen-Bund e.V.), about 80,000 deaf people are living in the Federal Republic of Germany. However, exact statistical surveys are not available because of the large number of unreported cases and the different definitions of deafness, which also result in different statistical information [8].

After the second world war, the clubs and state associations have been re-established by the deaf in West Germany. This was especially true for what is now the German Deaf Association (ger. Deutscher Gehörlosen-Bund e.V.). It is divided into 16 regional associations and 10 national professional associations. The national professional associations include associations of Sign Language Lecturers and interpreter, Evangelical deaf pastoral care, Deaf Sports Association, Deaf theatre, etc. In [8], a list of the regional associations and the professional associations are presented.

Deaf people receive financial support, which is independent of income. The financial support is related to the extra work that deaf people perform compared to hearing people. It is, however, not available in all states. In health, the costs of the sign language interpreters are covered by the health insurance for outpatient treatment. There is now a similar claim for inpatient treatment.

According to a study by the Federal Statistical Office of Germany (Statistisches Bundesamt) published in 2019 [9], the number of general education special needs schools is 2.865, and the number of part-time and full-time teachers is 68.130 among them 77 % female teachers. The number of vocational schools is 10.550, and the number of part-time and full-time teachers is 135.179.

The number of students with special needs in general and vocational education schools reached 474.463 in the year 2017/18. Among them, 306.431 went to special needs schools, and the rest went to general schools. Among the 306.431 students who went to special needs schools, around 4 % were deaf. On the other hand, around 5 % of the students who joined general schools were deaf. In 2017, the number of students who completed the special needs schools was 52.685; among them, 37.6 % were females [9].

In transportation, the Mobility Service Center of German railway company "Deutsche Bahn" is the one responsible for assisting people with disabilities even if the journey includes other railway companies. According to the German Deaf Association, the company provides assistance only for the journey made by company trains. Thus, the user must organise the rest of the journey by other means.

In media, very few television programs include an interpreter/subtitles. Any films funded by "Deutschen Filmförderungsanstalt" or "Deutschen Filmförderfonds" have to be barrier-free. Further, Cinemas in Germany receive funding aids to ensure that they are barrier-free.

## Greece

The Greek Sign Language (GSL) is a natural visual language used by the members of the Greek Deaf Community with several thousands of native or non-native signers. According to the Office for the Disabled people in Greece, there are 100.000 people with special needs in Greece. About 10.000 of them are Deaf and hard of hearing. Unfortunately, the statistics show that the unemployment increasing rate of disabled people in Greece is three to four times higher than the corresponding rate of the remaining population. Two main reasons can be identified for these special employment conditions: an inadequate estimate of the performance abilities of the deaf, and secondly, the communicative problems between the deaf and hearing.

The first Greek Association of the Deaf was established in 1948. According to anecdotal evidence, the association initially consisted mainly of school leavers from the school for the deaf in Athens until gradually more members joined. The founders of the Greek Association of the Deaf contacted deaf people in other big cities and convinced them to create their own Deaf clubs or associations. The role of the association was mostly recreational, as it was a place where deaf people could gather and socialise with each other. It also organised cultural activities and lessons in the Greek language for deaf people and demanded financial support from the Greek government. Established in 1969, the Greek Federation of the Deaf emerged from this association. Nowadays, 19 Deaf clubs and association can be found all over Greece. All of these organisations are under the umbrella of the Greek Federation of the Deaf.

According to Mr. Giallouros [10], the president of the Greek Federation of the Deaf, the lack of an official number of registered deaf/hard of hearing people in Greece is a weakness of the state. A database with real data has not managed yet to be created. By his estimations there are about 25.000 people, both deaf and with hearing loss, maybe up to 40.000 if we include the elderly who have a hearing problem and need hearing aids or various technical aids. Federation of the Deaf of Greece has approximately 3.000 deaf people and people with hearing loss as active members.

Greek Sign Language is used widely in the Greek Deaf Community, and the estimation for GSL natural signers is about 40.600 (1986 survey of Gallaudet University). There is also a large number of hearing non-native signers of GSL, mainly students of GSL and families of deaf people. Although the exact number of hearing students of GSL in Greece is unknown, records of the Hellenic Federation of the Deaf (HFD) show that in the year 2003, about 300 people were registered for classes of GSL as a second language. The recent increase of deaf students in basic education, as well as the population of deaf students in other institutions, may well double the total number of secondary and potential sign language users in Greece. According to official records, there are eleven deaf clubs and a total of 14 deaf primary, secondary, and tertiary educational organisations in Greece.

According to the Pedagogical Institute of the Greek Ministry of Education there are not accurate data about the deaf / hard of hearing population. According to research data from other countries the estimated number of deaf school-aged children in Greece should be about 1.500-2.000, distributed in special education and in general education. There are not also any data about the number of deaf children who remain outside education, mainly because of poor socio-economic conditions.

Hellenic Statistical Authority has done research regarding the number of children that study in Special Education. The most recent research on Greek Special Education concerns the year 2019, where 10.956 children were in Greek Special Schools, and 330 of them were deaf and children with hearing loss. It must be mentioned that many deaf and people with hearing problems do not join official special education and even do not learn Greek Sign Language due to the distance of such schools from their residence or due to the lack of parents' knowledge for suitable educational structures for their children [11].

## Portugal

The 2014's survey has registered 10,325 million people living in Portugal [12]. However, statistics are not precise concerning the number of deaf individuals. According to the National Survey On Disabilities and Disadvantages published by the National Institute for Rehabilitation, in 1996, there were around 115.066 hearing impaired and 19.172 deaf individuals. Later, in 2001, the Census registered 84.172 people suffering from hearing impairment. Ten years afterwards, the information



regarding deaf individuals is even less precise. Present data states there are around 150.000 deaf/hearing impaired individuals in Portugal [13]. The research results concerning people with any kind of disability gathered by the National Institute for Rehabilitation in 1995 showed that 1 % of the disabilities were related to hearing [14].

As for the precise number of the deaf in the education system, there is no official information, which clearly points to the need for a study in this area. The research made in the Portuguese official statistics database did not return any specific information related to the number of qualified teachers of the Portuguese Sign Language as well. The data provided refers only to the number of teachers presently teaching in pre-school, basic and high school levels, which across the country numbers almost 25 thousand teachers. However, according to Alexandra Perry, the President of AFOMOS (Portuguese Sign Language Teachers' Association), there are about 88 Portuguese Sign Language teachers in Portuguese schools, teaching both deaf students and hearing students who want to learn this language to communicate [15].

The lack of (or insufficient) support given by the Portuguese public services is minimized by the Deaf Associations spread all over the country. It is in these associations under the umbrella of the *Federação Portuguesa das Associações de Surdos* (Portuguese Federation of the Deaf Associations) that most activities concerning the integration of the community take place [13]. There are Deaf Associations based in Leiria, Porto, Amadora, Algarve, Vale do Ave, Amadora, Águeda, Cascais, Almada and Lisboa [16].

## Slovenia

According to the Deaf and Hard of Hearing Clubs Association of Slovenia [17], there are about 1.500 deaf or hearing impaired people in Slovenia (from a population of 2 million). About 1.000 of them use the Slovenian sign language as their first language. On average, there are somewhere between 40 and 50 new deaf children identified every year [18]. Although deaf are considered seriously handicapped persons in Slovenia, an old federal self-management agreement categorises deafness as a 70-percent physical impairment, which is not recognised as a disability.

Therefore, they do not have the right to technical aids or the status of a disabled person [17].

Attendance for the first 9 years of school (i.e. primary school) is compulsory in Slovenia. Meaning that all children, regardless of their nationality or disability, have the right to study, and the state has to provide them admission to a suitable school. For deaf children, there are two possibilities, either a special school or an integration school. The special schools are specialised in children with learning difficulties, as the disabilities among the children are not the same. These schools have their own focus, and for deaf students, the focus is on Hearing and Communication.

Most deaf people acquire a vocational education, less secondary education, and very few choose to pursue higher education. This is primarily due to poor literacy and poor knowledge of the Slovenian language. Deaf people in Slovenia are the least educated among all disabled people, as only 10 % of them have completed secondary school, and less than 1 % have completed higher education [19].

There is a central national deaf association, called Deaf and Hard of Hearing Clubs Association of Slovenia, which is divided into regional sub-associations [20]. Assistive technology is, in most cases, funded or co-funded by health insurance, rehabilitation centres or national social service institutions. The Deaf and Hard of Hearing Clubs Association website lists different types of assistive technology for deaf people [21]. Most of these Assistive Technologies are general and not specific to Slovenia. A special assistive technology specific for Slovenia is the Dictionary for the Slovene Sign Language [22].

Those unable to communicate in any other language than sign language get the right to use an interpreter. They get a given number of hours they can use interpreting services for free every year. Additionally, they can ask for a free interpreter for any business in public institutions (e.g. court of law, doctor appointments within the national health service, different administrations, etc.) [23].

## 2 Natural Sign Languages

Sign language is a visual and manual language, in which the signs are mainly composed of hand signals, mimic and body posture. People with severe or profound hearing impairment normally use it to communicate. It is a language with rich vocabulary coverage and its own grammatical rules [24].

Sign languages, their structure, legal recognition, and learning possibilities can be very different between different countries and their natural sign languages. This section will look at the natural sign language for each of the project partner countries.

### Cyprus

The Cypriot Sign Language (CSL), based on Legislation Law 66(I)2006, was officially recognised as the language of the Deaf Community in Cyprus. Prior to its recognition, the CSL was still in the stage of dialectological distribution, during which various local linguistic varieties (or dialects) coexisted [25].

Substantial development and information of the CSL is available after completion of the project: "*The Cypriot Sign Language Recording Project (2007-2010)*", which was implemented, after the recognition of CSL, by the Cyprus Ministry of Education and Culture with the collaboration of the Cyprus School for the Deaf and the Cyprus Federation of the Deaf. Its aim is to develop systematic and complete

documentation of CSL lexicon and grammar by means of theoretical and applied linguistics. The objectives of the "Cypriot Sign Language Recording project" are:

1. To be a reliable reference point for the cultivation of the instrumental (communicative-functional) and symbolic (socio-cultural) value of the Cypriot Sign Language.
2. To provide the background for the reliable and effective education of Deaf students in Cyprus, according to the findings of the bilingual pedagogical approach (via CSL and Greek).
3. To offer a documented educational basis for systemic and methodical teaching and learning of CSL.
4. To offer a stable reference point for the reliable training and education of CSL/Greek interpreters.

Regarding the range of vocabulary of the Cypriot Sign Language, in addition to the meanings/vocabularies, which are included in the Conceptual Dictionary (2,5 thousand), there is a large number of meanings, which are not included in it, and some of them are borrowed from other Sign Languages. CSL has borrowed sign meanings from the Greek Sign Language, while today the young deaf, due to their contact with deaf people from other countries, adopt and sometimes use, as part of their communication in CSL, foreign signs, mainly from British and American Sign Language.

The textbook Grammar of the Traditional Type [25] presents basic elements and Rules of Grammar of the Cypriot Sign Language, which, in general, do not deviate from those of other Sign Languages (e.g. hand parameters, two-word words, non-manual elements, etymology, production, etc.), which are then utilised to present the rules of syntax, mainly in terms of the structure and communication of the sentences.

## Germany

The German sign language (Deutsche Gebärdensprache - DGS) is the official sign language for people with hearing impairment since 2002 [8]. Although DGS shares common features with other sign languages, the exact origin and genealogy of the language are not clear [26]. Some examples of the languages that DGS shares common features with are French, Polish, Swiss-German, and Austrian sign

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language. The DGS is a straightforward language, as its sentences are shorter and more concrete. The vocabulary of the DGS is not uniform across the country but has many dialects comparable to the German spoken language. Due to the relatively new recognition of the DGS in German law, the process of standardising sign language among all the federal states still needs some time.

Another variant of the sign language is the manually coded language (Lautsprachbegleitende Gebärden, LBG), which follows the one-to-one grammar of the German language. The LBG is a popular choice for late-deafened persons, as the German language is the learned native language and following its grammar is an easy approach for communication [8].

In sign language, people mainly talk with their hands. Here, it is understood all hand and arm movements, which represent words and sentences that follow each other at a similar speed as in spoken language. German sign language has 30 different hand shapes. Activated hand form includes the following characteristics: the indication of the fingers, the position of the thumb and the degree of curvature, as well as the position of the fingers to each other. Thus the features, words, or signs can be distinguished from each other with the help of the handshapes. At the beginning of a gesture, the fingers can have a different position to each other or a different curvature than those at the end of the gesture. Furthermore, the hand position, in which the direction of the palm and fingers point to, the place of hand execution, and the direction in which the hands move change the meaning of a sign even if the handshape is the same [27].

Signs are iconically motivated, which means that they have a pictorial quality. This is recognised by gestural forms that represent a concrete image of an object or are formed by hand movement to pictorially represent a verb or an event [27]. In addition to the use of the hands, facial expression (mimic), movement of the head and eyes, and posture of the upper body play an important role in German sign language. While signing with the hands, the corresponding word is also silently reproduced with the lips (so-called mouth sign).

In German, a simple sentence consists of a nominal phrase (a clause whose head is a noun or pronoun) and a verbal phrase (a clause whose head is a verb). In contrast, a simple sentence in German Sign Language can consist of only one verbal phrase. In addition to simple sentences, complex sentences consisting of subordinate clauses can also be formed in DGS. The same as in German, a distinction can be made between sentence types in DGS. These are the propositional sentence, interrogative sentence, exclamatory sentence, request sentence and wish sentence. In order to indicate the type of sentence, DGS mainly uses non-manual speech components such as facial expressions and head and body posture. A simple active sentence in DGS consists of three elements subject (active participle of the action), object (passive participle of the action), and verb. DGS has flexible word order for different types of sentences [27].

In different areas of Germany, different variations of sign language established themselves among deaf people. In this context, some factors play a role and let us divide the variation of DGS into three types: Regional, social and situational variation [27].

## Greece

Greek Sign Language (GLS) is not the representation of spoken language in any other form, such as written language [28]. It is a complete language with its own syntax and structure. The GSL is a visual-motor language, and it is based on the movement of the hands, the posture or the movement of the body, as well as the facial expressions in order to convey a meaning. It has verbal and syntactic structures to express any abstract concept [28].

GSL is a natural visual language used by members of the Greek deaf community. GSL follows a verbal as well as syntactic structure in order to express any abstract meaning. Furthermore, GSL has a set of strict grammatical and syntactical rules. In order to delimit these rules, GSL uses space and motion. GSL has no written form, but the theatrical plays on the deaf community are recorded on tape and stories are transmitted from generation to generation [28].

Since 2017 Greek Sign Language is acknowledged as a formal language equal to the Greek language. According to the archives of the Greek Federation of the Deaf, there are currently approximately 2645 people in Greece who are qualified signers of GSL. Some of them work as teachers in Special Education for children with hearing problems. As far as teaching GSL to non-deaf is concerned, there are approximately 870 deaf teachers of GSL all over Greece [29].

The key components of GSL are the hand elements. These are the different shapes that a palm can take as well as the arrangement of the fingers which in combination with the orientation of the palm, the movement of the hand, the facial expression, the posture and movement of the body, and the position of the palm-shape (on the body or in space) can give any meaning. Signs can be categorised into a) motion signs, b) pause signs, c) signs that start with motion and end with pause, and d) signs that start with pause and end with pause [29].

The declaration of time is made at the beginning of the sentence and binds the space of meaning for these declared actions until a new declaration or pause. Regarding the declaration of space, sign languages -as considered opto-spatial languages- first dictate the location of the larger or immovable object and afterwards the identification in the space of the smaller or movable object [29].

The syntax of a sentence in the GSL usually places time, place, subjects, objects firstly and finally verbs. Another important element in the structure of language is the classifiers. They are at the same time a type of verb or verb phrase, pronouns and symbols for grouping objects. They are used after the classified object is first declared. Finally, many idioms serve to express comments and feelings quickly. [29]

## Portugal

The Portuguese Sign Language (PSL) was born from the Swedish sign language back in the 19th century. The Swedish Pär Aron Borg, the founder of an institute for the education of the deaf in Sweden, was invited by the Portuguese King D. João VI to create a similar institute in Portugal. By 1823 the first Portuguese school for the education of the deaf was created. The alphabet of the two languages, Portuguese and Swedish sign languages, reveals their common origin.

The Portuguese Constitution recognizes that the Portuguese State is committed to “protecting and valuing the Portuguese sign language as a cultural expression and an instrument of access to education and equal opportunities” [13]. The National Day of the Portuguese Sign Language is celebrated on the 15th of November. Despite this early start, the PSL was only legally recognized in 1997. However, this was still early, as by then, only five other countries around the world had officially recognized sign languages.

The interest in the PSL has been growing over time, not only by the deaf community (nearly 150.000 individuals in Portugal from which around 60.000 use the PSL) [16] but also by the Portuguese hearing individuals. Like any other living language, sign languages are constantly evolving and becoming effective contact languages used in learning, leisure, and work contexts [30].

Sign Language is produced in a 3-dimensional space involving several features and inputs, including hands movement, hands location, orientation and configuration and facial and body expression [31]. Similar to oral and written languages, sign languages also have lexical, phonetic, phonology, syntax, semantic and pragmatic of their own. Sign languages are, therefore, characteristic of each country and culture [32]. They are not limited to the simple technique of a sign – they involve all the communication dynamics characteristic of human beings. Hands movement and gesture configuration are essential together with facial expression and body movement, being these fundamental to distinguish the meaning conveyed by hand movements.

Sign Language is a movement and space language that obeys specific parameters. As for the PSL, the involved parameters are hand/s configuration, articulation point (or place), orientation, movement (straight, to the top, down, circular), and non-hand components (facial expression, body movement).



## Slovenia

The Slovenian Sign Language - SSL is the official language for people with hearing impairment. It is based on the use of hands, facial expressions, eyes and lips and body movement. A finger alphabet can be used together with sign language. SSL does not have the same grammar as the spoken language and is independent of the spoken language.

The adoption of the Act on the Use of Slovenian Sign Language had brought a significant step forward [32]. It enabled deaf people to use sign language in everyday life and public service. It also provides the right to use sign language in all other life situations in which a deaf person's deafness presents an obstacle. More specifically, this means the right of deaf people to use Slovenian sign language in communication, the right of adapted techniques of communication, and the right of an interpreter for the SSL. The rights also include all forms of social life, with equal rights and equal opportunities as those enjoyed by people without a hearing impairment. The European Union supports the minority languages of the deaf community as a unique expression of the linguistic diversity of the European cultural area, and the Member States calls for their preservation and promotion [24].

In Slovenia, there are three signing models [33]:

1. Slovenian Sign Language is a natural sign system with a highly developed manual-visual mode of expression.
  - A different structure than the Slovene language;
  - It is not used in conjunction with spoken Slovene;
  - It is used by deaf adults and deaf children and by hearing children of deaf parents.
  
2. Slovene in signs is a combination of elements of Slovene sign language and spoken language.
  - It is used at the same time as spoken Slovene;

- The order of gestures is the same as the order words in Slovene (without declension, i.e. suffixes);
- It is used by the deaf in conversations with the hearing and vice versa, by teachers who also have hearing students in the class and by interpreters when interpreting spoken or written language;
- Gestures follow words, which we call simultaneous communication, and is unique because it uses two languages at the same time.

3. A literal translation from Slovenian:

- Follow Slovenian words by adding suffixes using the finger alphabet;
- Used in class (e.g. dictations);
- Adult deaf people do not use it.

The elements of sign language include gestures, facial expressions, body movements and the finger alphabet [33]. In general, SSL is similar to German and Austrian sign language.

Each gesture has a phonological structure and consists of four elements (handshape or fingers, movement, palm orientation, and location). Changing any of the elements changes the meaning of the gesture. In SSL, different gestures are a specific shape of one or both hands in motion. Possible hand shapes consist of 29 letter shapes/signs (25 Slovenian and 4 foreign) and some other shapes. Altogether there are 44 hand shapes. With different movement and speed of the same gesture, we can change the gesture's meaning (e.g. tree -> trees -> forest). Movement can be slow, normal or fast. This communicates some additional significance of the event.

Facial expressions are an essential element of sign language. It can be used alone or combined with a gesture that it emphasises. With it, we form the structure of sentences and texts. Emotions, mood and thinking are shown and expressed on the face, on which, more than on gestures, the listeners gaze is focused. Body movement (pantomime) accompanies gestures and facial expressions. With a simple body movement, we can also express certain statements (e.g. shrug with the shoulders = I don't know).

The finger alphabet is not a real element of sign language because it is tied to the knowledge of spoken/written language, which is not a part of sign language. The finger alphabet is just an accompanying element. It is used for names of persons and places, words for which we do not know the gestures, foreign words, and declension endings (suffixes) when learning Slovene.

One of the more specific properties of the written Slovene language is the so-called declension. This means the ends of the words change depending on circumstances. In the Slovenian language, nouns are declined for six cases and three numbers. Adjectives and most pronouns additionally decline for the three genders. Slovene Sign Language omits this and uses additional/adapted gestures where necessary (e.g. for plural). The exception to this is, previously mentioned literal translation signing model where declensions are also included (by spelling); used when learning written Slovene.

## 2.1 Policies and Legal Status

This section will shortly look at deaf-related policies, the legal standing of natural sign languages, and the specific policies applicable to education and general living.

### Cyprus

The specific policies applicable to Cyprus, as voted by Cyprus parliament, are the Recognition of the Cypriot Sign Language (66 (I) 2006) and in 2008 the Law on the Recognition of the Cypriot Language (Amending) Law (36 (I) 2008), that followed.

The above Legislation defines the Cypriot Sign Language as the:

*"visual code of communication, used, either as the only, or as an adjunct to speech, communication between Deaf and other persons, based on the Greek Sign Language, as it has evolved and used in Cyprus, regardless of the native language of these persons, and which code is based on either various finger movements, including finger or hand or head or body movements, or various facial expressions or and in combination with such movements and expressions, which symbolise different, corresponding meanings".*

In addition to the above definition, similar definitions for the Deaf are also given by the Federation of the Deaf and the School for the Deaf.

It is also mentioned that the knowledge of the Cypriot Sign Language is recognised as the main qualification for employment, while the Ministry of Education and Culture has the exclusive jurisdiction to issue a Certificate of Knowledge of the Cypriot Sign Language.

Finally, measures and legal frameworks are defined for the implementation of the law, such as:

- Facilities for the use of CSL Interpreter;
- Recruitment in the School of Deaf teachers;
- Publication of manuals for the Registration of the CSL and their free provision;
- The CSL should be taught optionally in Public Schools.

## Germany

In Germany, there are 16 federal states, each with elected parliament and government. All states have an independent decision-making process that includes all legal actions concerning educational matters and recognition of Sign Language. Thus, the decisions are made partly at the state level and partly at the federal level [34].

The German Deaf Association has been fighting for German Sign Language Recognition since 1989. At that time, the education was completely oral with minor use of signed German. The main demands were the possibility to study German Sign Language at the universities, inclusion of German Sign Language in schools, training of sign language interpreters, clear regulations regarding the payment of German Sign Language interpreters, etc. In the early 1990s, there has been a wide range of political acts. For example, the demonstration was organised during the festival of deaf culture in Hamburg. To date, the German Deaf Association was able to achieve many things nationwide. In 1994, the 16 ministers of labour and all ministers of social affairs took the decision of recognising German Sign Language. However, the

first discussion of the German parliament on the recognition of German Sign Language was in 1998 [34].

The Federal Law on Equal Opportunities for Disabled Persons guarantees the equal participation of people with disabilities in society and enable them to lead a self-determined life. At the heart of the law, German Sign Language is recognised as a language on its own, and the accessibility of deaf persons to all areas of life is guaranteed. Since the law was put into force in 2002, there has been a lot of effort to ease the accessibility of deaf persons to all areas of life, especially in education [34].

## Greece

In 1981, the special education law was voted. In 1985, with the law 1566/1985, special education was integrated into a structural and functional system of pre-primary, primary and secondary education in Greece. However, great progress was made when Law 2817/2000 officially recognised the Greek Sign Language in public education.

The Greek Sign Language had not been extensively used in the education of deaf children in Greece and until 2004 was not even a part of the curriculum of schools where deaf children were attended. In the short history of deaf people's education in Greece, the GSL has been either banned or marginalised, and only in recent years has its use in the education system gradually increased. Published and experimental programs were taken into account for the development of the Curricula of GSL [29].

The main goal of the Greek Ministry of Education is to provide equal opportunities to all students. In this context, special care is taken for the equal integration of Special Education in the general school. Therefore, there is a common project for education for all groups of students. The aim of the curriculum of GSL is not only to learn GSL as a first language but also to learn the Greek language, mainly in its written form, as a second language. For this purpose, the curriculum of GSL is structured in such a way that all grammatical phenomena of GSL are taught before the teaching of the corresponding phenomena of Greek. The comparative analysis of the linguistic structures of the languages and the use of the first language for learning the second language will lead to the acquisition of both languages naturally

and comfortably. A basic principle for effective implementation of the Curriculum of GSL is the excellent knowledge by the teachers of GSL and Greek Language, as required by the implementation of bilingual education programs [29].

## Portugal

Article 74, 1. of the Portuguese Constitution starts by stating that “Everybody has the right to education, guaranteed rights to equal opportunities of access and success in the education path” [35], being a duty of the Portuguese State, as legally stated in Art. 74, no 2, h), to protect PSL and value it as part of the Portuguese culture and as a tool that enables access to education and equal opportunities. This inclusion and recognition in the Portuguese Constitution occurred in 1997. A year later, Ruling no. 7520/98, from May 6th, pointed out the relevance of the education for the deaf to take place in “bilingual environments, favouring learning the Portuguese Sign Language as well as the written Portuguese Language, and eventually the spoken Portuguese” [35]. Moreover, in the same Ruling, the importance for a deaf child to be integrated into a socializing group integrated by other deaf children and adults it is recognized. Only by having immediate and direct contact with other deaf individuals will it be possible for a child to naturally acquire and develop the required means to communicate and learn how to improve [36], [37].

## Slovenia

The area of sensory disability and rights of persons with hearing impairment is covered by a set of legal regulations and documents with which this group of people with disabilities, at least at the legislative level, is guaranteed equal opportunities in education, employment, health and social care and other forms of assistance to meet their specific needs. In 2021 the right to use and development of SSL was confirmed to be added into the country's constitution. After Austria, Finland, Hungary, and Portugal, Slovenia will be the fifth country in the EU to write the right to sign language into its constitution [38].

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Key regulations and programs which provide equal opportunities and eliminate discrimination based on disability are:

- Article 14 of the Constitution of the Republic of Slovenia, which explicitly "guaranteed equal human rights and fundamental freedoms irrespective of national origin, race, sex, language, religion, political or other beliefs, financial status, birth, education, social status, disability or any other personal circumstance" [24], [39].
- The Use of Slovenian Sign Language Act [32] provides deaf people with the right to use Slovenian Sign Language in proceedings before any state or local public service. It also recognises the right to use sign language in all other life situations. A deaf person is given the right to access information in an appropriate format. The right shall be exercised by means of an interpreter for Slovenian Sign Language. The law defines sign language as a language of communication of deaf persons or natural means of communication of deaf people.
- The National Assembly of the Republic of Slovenia, at the 37th meeting on 2. April 2008, ratified the UN Convention on the Rights of Persons with Disabilities.

There is also other legislation which is related to the deaf and hearing-impaired persons: The Act on the Equalisation of Opportunities for Persons with Disabilities, The Act on the Placement of Children with Special Needs, The Rules on additional technical and physical assistance for children with special needs [40]–[42]. Prohibition and prevention of discrimination on the grounds of disability provisions contained in the Act on the implementation of the principle of equal treatment [43], the Labour Act [44], the Act on Vocational Rehabilitation and Employment of Persons with Disabilities [45], and the Act on the prevention of domestic violence [46].

Additionally, there is a Resolution on the National Program for Language Policy 2014–2018 [47], an Action Plan for language features [48], an Action Plan for language learning and a Program of Action for the disabled in 2014 – 2021 [49]. The purpose of these programs is to promote, protect and ensure the full and equal

enjoyment of human rights of persons with disabilities and promote respect for their dignity.

## 2.2 Learning

This section is dedicated to education systems that are in place in the project partner countries for the education of deaf students and the learning of national natural sign languages.

### Cyprus

Even before its recognition, Cypriot Sign Language has been taught mainly during training programs by the Ministry of Education and Culture on a national scale, and its instructors were mostly deaf people. Either deaf or non-deaf people may attend these programmes, and with the completion of each programme, the participants obtain a certificate of attendance.

The trainees may attend training programs in four levels for learning the Cypriot Sign Language. But their completion is not presupposed as a criterion for the practice of the profession of CSL Interpreter. In addition to the training programs, CSL learning courses are also offered in Higher Education Institutions (public and private) as elective courses for students.

In general, in Cyprus, there is not any official curriculum for the teaching of the Cypriot Sign Language. The same applies to the teaching of CSL in Higher Education Institutions and Universities in Cyprus. However, some teachers use the Common European Framework of Reference for Languages to adapt the levels of learning of the CSL to the framework's standards and accordingly indicate the levels of knowledge received.

There is one special School for the Deaf in Cyprus where teachers do not necessarily speak the CSL, but there are interpreters who do. During the courses, the CSL itself is not taught. The teachers of secondary education, mainly, are not obliged to know the CSL. As a result, the interpreter sometimes plays a dual role (interpreter and trainer of CSL) since the majority of deaf students come from hearing parents and do not have contact with the CSL before school.



## Germany

German education is a decentralised system owing to the independent decision-making process of the 16 federal states. The decentralisation affects the school system as well as the followed methods. The mainstream schooling system is divided into three sections these are the primary level (grades 1-4), the lower secondary level (grades 5-10), and the upper secondary level (from grade 11). The students are assigned to different educational pathways from secondary school onwards. Further, there are also special school systems for children with disabilities, e.g., mental development, learning, language, emotional and social development, vision, and hearing. These schools are also under the respective Ministry of Education and Cultural Affairs of a federal state [50].

For children with disabilities, education is compulsory and usually starts from the age of 6. Today schools are looking for ways to combine oral-aural and bilingual education under one roof. In order to promote bilingual language teaching, two school experiments were carried out in the special schools of Hamburg and Berlin in primary and lower secondary schools. In this trial, both sign language and spoken language were used in the education process to develop meta-linguistic awareness. Further, teams of deaf and hearing teachers were employed. The deaf teacher teaches DGS, and the hearing teachers teach spoken language with German and supported with sign language. This experiment allowed students to learn both. Further, their access to German Sign language made the acquisition of German easier. In 2009, Germany signed the United Nations Convention on the rights of persons with disabilities, which assures the right to have sign language in education and attend mainstream schools. Bilingual education, however, is not yet implemented in all German states. In the early stages of education, parents of hearing-impaired children have the free will to choose between educating their children in special needs schools or regular schools in which an interpreter is required. In the case of regular schools, parents can apply for integration assistant for their children [50].

Before there were DGS lectures, until the late 1980s, learners could participate in "Signing courses" in which they acquired speech-accompanying signs (LBG), that is, signs parallel to the corresponding spoken word. The grammar of the German spoken language remains the same in the case of speech-accompanying signs. Therefore, LBG is not an independent natural language like German Sign Language

or German spoken language, but a combination of the two. With LBG one could communicate to some extent with deaf people, as long as the topic of conversation was daily topics. Thus, the LBG articulation method was limited and not sufficient to communicate with deaf people in all situations.

The late 1980s marked the beginning of DGS courses, which were offered alongside LBG courses. DGS classes were fully supported by the Federal Association of Sign Language Course Teachers. This has led to an increase in the number of DGS courses offered since 1990, which has also led to an increase in the number of deaf sign language instructors. The subject of German Sign Language has been introduced in some of the federal states, namely Berlin, Brandenburg, Hamburg, Bayern, and Sachsen-Anhalt. This was no longer teaching hearing people how to communicate with deaf people in their own language using accompanying signs. Instead, hearing people were taught sign language as a foreign language in its own right by articulating nonverbally and visually using the grammatical features in the form of manual speech components, facial expressions, location in usable space, verb modifications, etc. Accordingly, in the DGS class, the rule was that hearing people must communicate silently in class. In addition, sign language instructors must be able to teach hearing sign language learners not only how to speak silently but also to engage them in a cultural and exchange of ideas with the deaf community. As a result, instead of speaking, sign language learners must use their bodies for visual communication and silent articulation purposes to successfully acquire DGS.

The training of special education teachers with a special focus on hearing takes place at five universities in Germany. These are Berlin, Hamburg, Heidelberg, Cologne, and Munich. The universities offer Bachelor and master programs which are followed by a training period of two years at schools [50].

Since the educational system in Germany varies from state to state, different approaches to the educational process are used. The majority of German schools for the deaf, however, use spoken language signs. Here, a certain visualisation aid is given for reading the spoken words at the same time. There are actually few schools for the deaf that adapt the idea of bilingual teaching and DGS teaching. For example, in Bavaria and Hamburg, the subject of German and the subject of German Sign Language are regular teaching subjects in schools for the deaf. However, as an approach to bilingual teaching, there is still no undisputed methodology in Germany.

In principle, the Hamburg bilingualism model is used. The main idea of the model is that bilingual teaching is carried out by deaf teachers together with hearing teachers in sign, written and spoken language. Here the deaf teacher represents the German sign language, and the hearing teacher represents the German spoken language with the background idea that DGS is the core of the teaching.

## Greece

During basic education, deaf students are required to be taught grammar and syntax rules of both Greek and Greek Sign Language. Also, the teaching of vocabulary is a keystone in the teaching of Greek Sign Language. For student assessment, emphasis is placed on the ability to recognise vocabulary in an environment as well as the ability to receive information from a GSL semantic [29].

The topics the students work on are the daily greetings, the questioning, the furniture, the means of transportation, the geographical areas, the time, the calendar, Christmas, the life in the city, the life in the village, Easter, clothing, characterisations, use of classifiers, animals, occupations, family relationships, market activities, the bank, the post office, the factory, the police, the hospital.

In elementary school, students are able to recognise and describe particular characteristics of GSL and explain the importance of gaze and non-motor cues [29].

They recognise, convey, and describe meanings and signs in their basic form and in inflexion or in combination with classifiers and the inflexion of nouns, verbs, and adjectives. They learn the production and categorisation of nouns in GSL and the production of noun definitions. They also learn recognition and formation of verbs and the formation of verb definitions in GSL, formation of noun-verb pairs and the different types of classifiers in GSL and their integration into movement and position verbs [29].

A key element of the teaching is developing and demonstrating the skills required to define the grammar of GSL sentences and the understanding, recognition, and use of the components of sentences. The students get familiar with learning, recognising and forming individual elements of GSL sentences and understanding, recognising

and using basic types of questions in GSL and the differentiation of affirmative sentences from questions [29].

They learn to use the four basic parameters of meaning, visual contact and the use of the gaze. They learn to incline nouns, verbs and adjectives and to form tenses in GSL. They are taught the differentiation of common from proper nouns, the use of a noun/ verb agreement, and the formation of sentences with basic editorial structures [29].

Finally, they learn to apply the appropriate grammatical principles governing the use of personal pronouns and the formation of classifier category structures with acceptable combinations of hand elements with gestures and movements. At this level begins the analysis of the structure of derivative meanings in order to find their etymological roots (e.g. pairs/families of noun-verb-adjective) [29].

Of course, in Special Education, learning is a combination of many factors. The curriculum is such a factor, as well as the incentives from the family environment. The health issues and special educational needs that deaf students may face (e.g. dyslexia, autism, Asperger syndrome, Asher syndrome, etc.) also play a key role.

Teaching Greek Sign Language by private bodies in Greece consists of four cycles of study, each one consists of one hundred and twenty hours lasting eight months. By completing these cycles, someone is considered to know the Greek Sign Language at a good level and has the right to take exams for the Proficiency of Greek Sign Language [29].

In order to be qualified as GSL teacher, someone must successfully pass the National Proficiency exams of GSL that the Hellenic Federation of the Deaf organises twice a year. Typically, deaf people teach GSL to non-deaf because they are native speakers of GSL and for moral reasons in order to have an occupation as teachers.

## Portugal

In Portugal, deaf children have bilingual education (PSL and Portuguese) since the second half of the 1980s. Bilingual education intends to make deaf students fully competent in both languages.

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The PSL curriculum maintains some parallelism with the curricular guidelines for pre-school education, the national curriculum of primary education and the specific curricular organization for each of the three cycles in elementary school, in particular, Portuguese as a mother tongue and history.

This PSL curriculum as a first language cannot be confused with a curriculum of PSL as a second language to teach non-deaf learners. Teaching a language that is acquired naturally during childhood is totally different from teaching a second language to those who have never had contact with it.

The curricular program for the Portuguese Sign Language course is intended to be a regulatory instrument for its acquisition and development as the first language of the deaf community. It considers four main areas: Interaction in PSL, Literacy in PSL, Study of Language, PSL in Community and Culture.

**Interaction in PSL:** To express thoughts and feelings fluently, according to the visual communication rules and to adjust production to context and the interlocutor; understand easily spelt out formal and informal PSL. This area includes, in particular, competencies at the level of visual attention, understanding, interpersonal and group communication, production, including intentionality, of diversity communicative and formal presentations.

**Literacy** specifically encompasses general understanding and understanding of narratives, in particular, linguistic games, literary analysis, including narrative analysis, production, humour, poetry, dramatization, language functions and the use of resources.

**Study of Language** includes the ability to understand and analyse the grammatical aspects of the PSL and its socio-cultural variations, study the origin of gestures and their evolution. This component covers the formation of gestures, the units minimum values (gesture parameters), gesture classes, fields semantics (developed from the first cycle), vocabulary, the sentence structure, the linguistic correction, the variation of the PSL, the comparison between sign languages, the gestural alphabet and dactylogy and the comparison with Portuguese.

PSL in Community and Culture includes different cultural and historical aspects that define the deaf community, by its direct or indirect involvement, indirect effect on the lives of deaf people over time, and develop a positive identity and self-concept. The Community and Culture include aspects related to the identification, identity and pride, appreciation of the PSL, diversity, the national community and international, history, technologies, multiculturalism and citizenship.

The curricular program for the Portuguese Sign Language course is intended for all Deaf children, regardless of the type and degree of deafness, the age at which acquire (whether at an earlier, simultaneous or subsequent stage of language acquisition) and potential for audio-oral rehabilitation. Thus, the curricular program must adapt to all deaf children, taking into account their heterogeneity, both concerning the age of access to bilingual education and the set of communicative skills with which they access it.

This summary was based on a report by the Portuguese Ministry of Education, Directorate-General of Innovation and Curricular Development, describing the curricular program for learning PSL [51].

## Slovenia

The first institution for deaf children, which operated in Slovene (and Italian), was established in 1840 in Gorizia [33]. However, in 1880, international deaf educators meet in what is known as the Conference of Milan. There they declared that oralism is the superior method for teaching the deaf, and sign languages were banned. In Slovenia first forms of lectures (not in education) on Slovene Sign Language began again in 1979 (the deaf community did use them before, but they were not taught and were sometimes forbidden in schools) [17]. In Slovenia, sign language was included back into the education of the deaf only in 1990 (other components of what is called total communication were already included) after the European Parliament's Resolution on Sign Languages for Deaf People in 1988. It started with specific courses teaching Slovene sign language and is now, depending on the education level, an elective or mandatory subject in schools for the deaf. Today there are three institutions intended for the education of the deaf in Slovenia. All three institutions offer education for preschool children until the end of primary school. The institute in Ljubljana also offers a secondary vocational and technical school

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with education, graphics, woodworking, metallurgy, and vocational media technology. Sign interpreters are also used in classrooms to interpret the lessons to sign language as necessary. Slovene sign language is also an elective and mandatory subject in the Faculty of Education in Ljubljana and in the master's program in the Faculty of Education in Koper [33].

Interpreters in Slovenia are certified by the Slovene Association of Interpreters. The certification includes a more theoretical side on the issues of the deaf; however, a large part of it is more practical where the candidate has to show their knowledge of interpreting from the spoken language into sign language and vice versa. The certification committee includes three certified interpreters and, sometimes, actual deaf people [17]. There is a training program for interpreters that they can take before trying to get certified. The training takes 2 years and is done over weekends [52].

In order to raise the public's awareness about the need for recognising Slovene Sign Language, the Association of Slovene sign language interpreters prepared a publication project for a practical multimedia dictionary. Today, the dictionary contains almost eighteen thousand entries for the most frequently used words in Slovene spoken language, structured in individual contents chapters. A constituent part of this dictionary is a guidebook for teaching and learning sign languages based on the grammatical rules of Slovene. This manual was elaborated on the basis of observation of the language used among deaf people. Publication of the dictionary means the implementation of the Resolution on Sign Language, passed by the European Parliament in 1998 in which the parliament invites all the EU Member States to recognise the sign language of deaf persons, the profession of a sign language interpreter and the right of deaf people upon an interpreter.





## 3 International Sign

International Sign (IS) is used in international conferences/events and in communication between signers with no other language in common. IS signs are combined from the signer's own national sign language mixed with highly iconic signs that can be understood by a large audience. International Sign interpreters are accredited by the World Federation of the Deaf (WFD).

International Sign is often referred to as pidgin, koine, contact language, and lingua franca. Throughout history, there have been different versions of IS. The first attempt to standardise an international sign system was in 1951, which was discussed in the first World Deaf Congress. After a few years, an understandable form of IS was used to facilitate communication between deaf representatives who had different language backgrounds. The WDF committee made an attempt to establish an international sign system for the deaf in 1973. They have chosen common, naturally spontaneous and easy signs that deaf people in different sign languages use to accomplish that. Approximately 1500 signs have been collected and published in a photographic dictionary with the title "Gestuno: International Sign language of the Deaf". The word Gestuno refers to gesture and oneness. Although Gestuno and the dictionary fell out of use, it influenced the IS lexicon. The interpreters can effectively interpret using the IS sign system with the help of gestures and other resources [53]. Although IS is promoted as a lingua franca for globalising the deaf communities and used at international conferences, there is a lack of International Sign literature.

IS is considered to be a mixed language, and thus, it is often characterised as pidgin. However, it has different characteristics than natural sign languages, which possess a standardised lexicon and grammar. Thus it is difficult to refer to IS as language. The WFD uses the term IS, rather than International Sign Language, to indicate that IS does not have full linguistic status but is a translanguaging practice. Further, it is difficult to refer to it as a universal language since Eastern signers can not really understand IS. This is related to the different features between Eastern and Western Sign languages [53].

According to a study [54], the grammar rules of IS are more complex than a typical pidgin, but the verb agreement and word order are much similar to natural sign languages. In another study [55], it was found that the narrative duration in natural sign languages is shorter than IS. Further, the narrative content and availability of an established IS sign cause variations in the lexical content. In case IS sign does not exist, a mime, a sign from natural sign language, or classifiers is used. In [56], [57], the authors report that International sign shares a number of features with natural sign languages, e.g. negation, facial expressions for grammars, non-manual adverbials, depiction, etc. It also inherits some interpretation features, e.g. low rate of production, large signing space, groups of different signs with a similar concept.

In a few cases, the IS signs are taken from the original Gestuno dictionary. However, the sign forms are replaced either by signs from western sign languages or signs that are common in many sign languages. It is said that the vocabulary stem from the local sign language where IS is used. In the study discussed herein, the authors compared the IS vocabulary and a variety of natural sign languages (e.g. DGS, BSL, ASL, Auslan, Thai SL, etc.). The authors report that 60 % of the signs were found in three unrelated language groups, 36 % were taken from specific sign languages, and only 2 % were identified as unique signs to IS. The IS signs here, however, do not have the same form as the ones originally introduced in Gestuno. The degree of iconicity in IS depends mainly on shared cultural experiences between the signer and addressee. The main characteristics, structure and comparison to some other sign languages were analysed in [56].

Descriptive meanings make international Signs, and many of the signs are borrowed from various national sign languages. They are specific signs that are made by the necessity for communication at conferences and councils. Each speaker uses words from their local sign language vocabulary, so there is more than one sign for one meaning. One of the common techniques in IS is the presentation of concepts in multiple forms, which make the information accessible to the audience despite the noisy channel. Describing the IS as a noisy channel is related to the limited number of IS vocabulary, diverse audience, and low degree of conventionalisation.

In project partner countries, the IS not very well known. However, it is much more spread among younger generations. They learned about it through the use of social media and the internet. Some deaf people used the IS in video calls with other deaf friends and colleagues when travelling to other countries for educational reasons or entertainment and when they participated in seminars with an IS interpreter.

### **3.1 Policies and Legal Status**

Despite all literature and various events where the IS is used, the World Federation of the Deaf (WFD) and the European Union of the Deaf (EUD) assert that IS will not be recognised as a language. According to [53], only a few contributions are found regarding the policies of IS usage. For instance, the EUD disclaimer and the WFD position paper were published in 2010. Although IS is used widely in WFD events and determined as the only way of communication, the recognition of IS endangers the recognition of natural sign languages. This is related to the absence of funds for Natural Sign Languages interpreter provision. IS is therefore viewed as a helpful tool for inclusion [56].

Therefore, it is not surprising that none of the partner countries (Cyprus, Germany, Greece, Portugal, and Slovenia) have any formal policies or legal statuses regarding International Sign.

### 3.2 Learning

There are no formal learning programs for International Sign in any of the project partner's countries, with one exception. The School of Education of the Polytechnic of Coimbra in Portugal offers a course on International Sign<sup>1</sup> - International Sign System - to its students. The course requires that the candidates have previously passed a course on Portuguese Sign Language. International Sign System is a compulsory course from the study field of Portuguese Sign Language accounting for 6 ECTS in the second year of the Bachelor degree in Portuguese Sign Language. It is taught in Portuguese. There have also been some seminars where some basic signs of IS were taught in Greece, but they are very limited and not performed periodically. The partner from Slovenia reported the inclusion of IS in a course in higher education, but only as a side note, without actually learning the signs. In Slovenia, signs of international gesture are currently being added into the dictionary of Slovene sign language, which is managed by the Deaf and Hard of Hearing Clubs Association of Slovenia.

Deaf interested in learning International Sign are mostly left to their own initiative, which generally involves learning from the internet. Even the WFD gives, as the best advice for learning International Sign, to be fluent in at least one sign language and actually see and meet people using International Sign [58]. The knowledge will basically be collected through experience.

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<sup>1</sup> <https://www.ipc.pt/ipc/en/unidade-curricular/international-sign-system/>

## 4 Communication Challenges Between Deaf and Non-deaf in Education

Deaf people face unique challenges all the time. The challenge this project is aimed at reducing is the communication in an international setting, where participants do not share a common language. However, there are many other challenges deaf have to overcome, from the more obvious ones like different communication mediums between deaf and non-deaf to others that are not so apparent. They include increased difficulty in learning reading and writing, regional differences within the same sign language, limited support (including assistive technologies) even in everyday or fundamental aspects of life (e.g. education or healthcare), poor awareness of their communication challenges outside the deaf community, etc.

That is why we have tried to gauge the general public's understanding of the situation the deaf are faced with and collect some opinions on the situation from some people more heavily involved in the deaf communities. The first was done with a survey, results of which, combined for all the participating countries, are analysed in the first subsection. Each partner has done their own analysis of the collected data published in national reports for each partner country. If you are interested in the statistical analysis of data for each country or the responses to the open-ended questions, like how do the participants communicate with deaf people or suggest improvements to

the studying experience of the deaf students, please read the individual national report. The information and opinions from those more involved in the national deaf communities were gathered with a guided interview, a summary of which are presented in the second subsection. If you are interested in the full responses, we would again direct you to the national reports.

#### 4.1 Survey on Communication Between Deaf and Non-deaf

As part of the InSign project, we have prepared a survey, with the main goal of collecting data on how aware of challenges deaf people face and how sign languages work, as well as gauge the interest of students and teachers (the surveys were primarily published in higher education environment) to learn sign language and collect their ideas on what could be done to improve the deaf student's education experience.

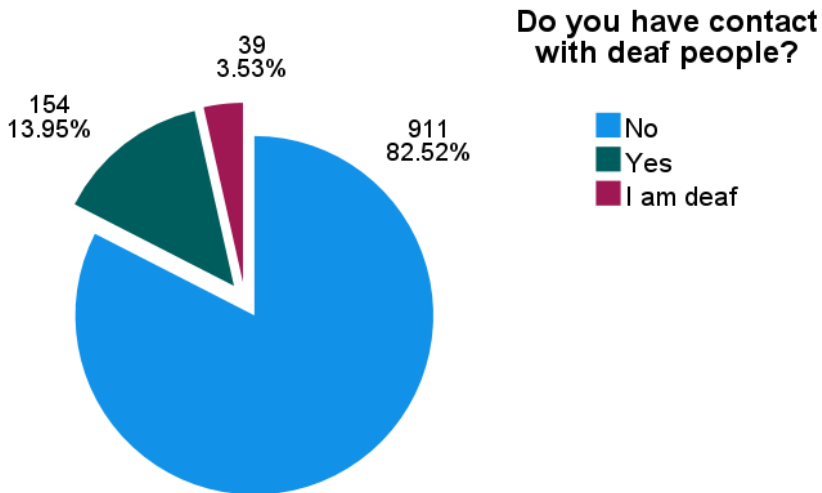
The survey was translated into national languages, not to require the knowledge of English to participate and performed by each of the project partners. The questions and possible answers (where applicable) are attached in Appendix A, while the basic results for all the close-ended questions are in Appendix B. This report presents results for data collected from all the partners. After cleaning the data, we were left with the answers from 1107 people who participated in the survey. The breakdown of the collected data by partner country is presented in Table 1.

**Table 1: Number of participants in the survey by the partner country.**

	Frequency	Percent
Cyprus	40	3.6%
Germany	365	33.0%
Greece	268	24.2%
Portugal	244	22.0%
Slovenia	190	17.2%
Total	1107	100.0%

One of the first questions the participants answered was whether they have any contact with deaf people (or if they are themselves deaf). The breakdown of the answers is available in Figure 1 (top values in the pie chart is the absolute number of participants, and underneath it is the share of responses in percentage). We will use

this information going forward to look at whether or not participants that have a personal connection to the deaf community have answered questions differently.



**Figure 1: Participants' contact with deaf people**

One of the InSign project goals is raising awareness, which according to the results of this survey, is a worthy cause because 82 % of participants have never heard of IS, which is expected as most participants do not have contact with deaf people. However, interestingly two-third of those that do have contact with deaf people, and more than one-third of those that identified themselves as deaf have also never heard of International Sign.

Almost three quarters (72 %) of the participants believe deaf people can read fluently and understand written language. However, when these results are grouped by whether or not the participants have contact with the deaf community, there are noticeable differences between groups (Figure 2). Those that do not have contact are much more likely to think deaf people can read and write. They represent close to three-quarters of all participants with no contact with deaf people, while those that do have contact are much more evenly split. This shows that there is some misconception in the general public as the deaf often struggle with learning the written language [59].

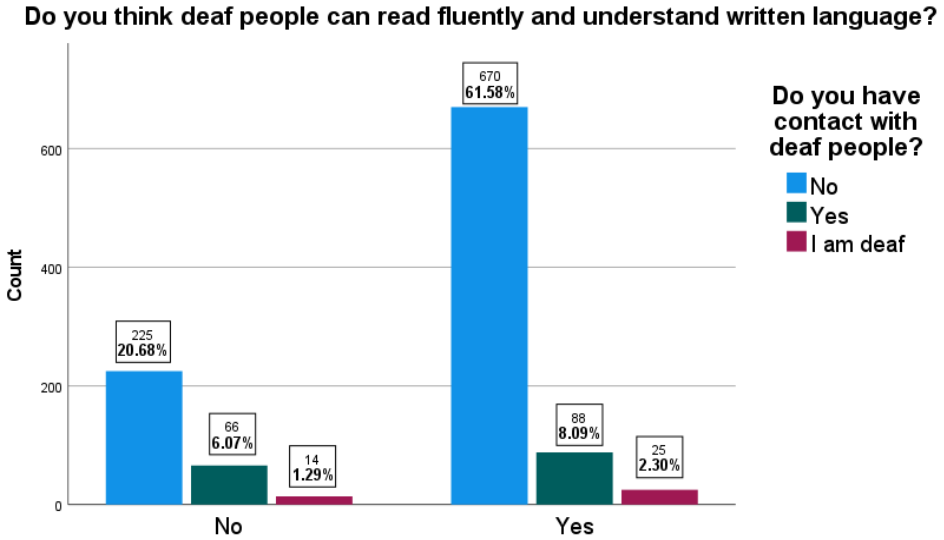


Figure 2: Perceived ability to read and write grouped by contact with deaf people.

In the answers to the question on how deaf people communicate with each other, we can see (Figure 3) a relatively steady rise through the four possible answers (participants could mark as many of the methods as they wanted), where writing is the least common, followed by lip-reading, then gesturing (common gestures, not a language or some sort of an established system), and finally, sign language which was the most commonly given answer with very close to 88 % response rate.

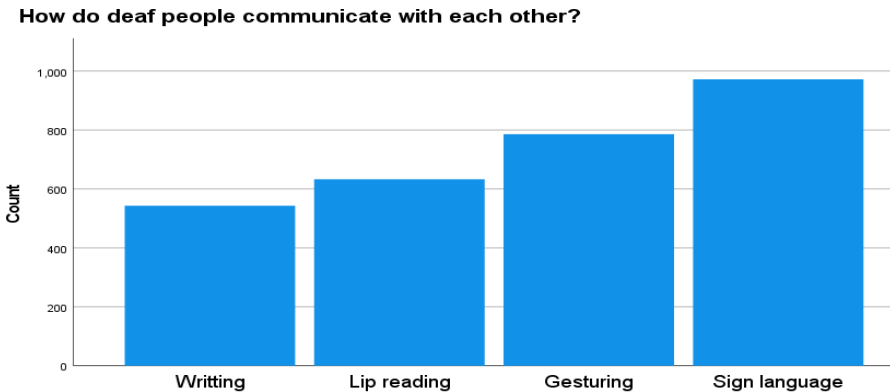
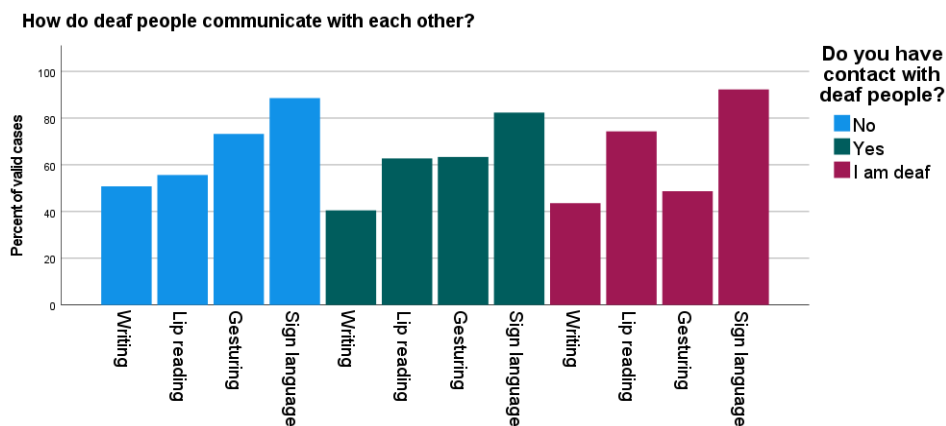


Figure 3: Answers on how deaf people communicate with each other.



The order of most common answers to the communication method among the deaf is different depending on whether or not they have contact with deaf people (see Figure 4). Writing and sign language are the least and most common method regardless; however, there is some significant difference in how common gesturing and lip-reading are perceived. Gesturing was much more popular with participants who do not have contact with deaf people. This was completely flipped in the category of deaf participants, where lip-reading was much more popular. The participants who have contact with deaf people but are not themselves deaf, bridge this gap by showing no preference to either of the two methods of communication.



**Figure 4:** How deaf people communicate with each other, grouped by contact with deaf people.

Interestingly, data collected from different project partner countries often don't significantly differ in how participants answered the question. Naturally, there are some differences, but the general trend is the same among all countries, or the participant demographics could explain it (e.g. Cyprus had a relatively small number of participants but a very high percentage of deaf people). These relatively coherent results from project partners could indicate no significant cultural difference (at least among these countries) in how deaf people or rather their communicational capabilities are perceived. However, the answers to the question on the communication methods deaf people use to communicate with each other are a notable exception (see Figure 5). The biggest outlier here is the results from Portugal, which is the only country where the participants have not overwhelmingly

chosen sign language as the primary communication method but gave much more credence to gesturing. Gesturing was also the second most popular in Greece and Germany, while Lip-reading was a more common answer in Cyprus and Slovenia.

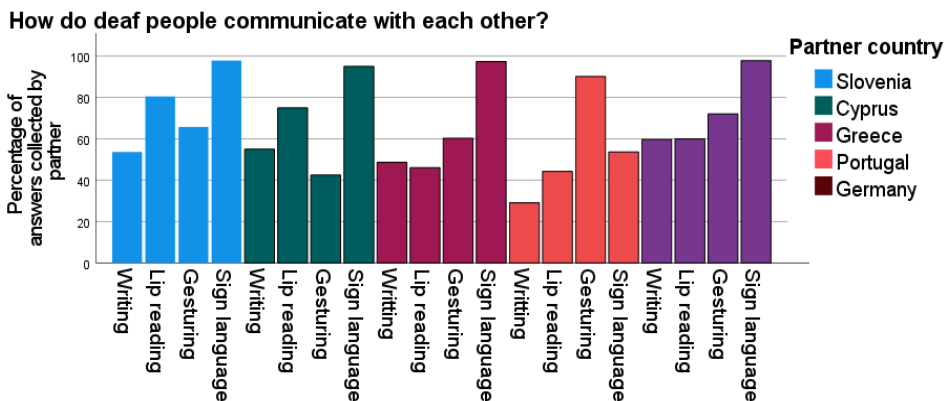


Figure 5: How deaf people communicate with each other, grouped by participant country.

The differences in communication methods are less evident in the communication between the deaf and non-deaf (Figure 6). There is no large disparity between answers from people who have and those who don't have contact with deaf people (Figure 7), with the only exceptions being lip-reading, which was marginally more commonly and gesturing, which was less often selected by deaf people. Surprisingly, all groups have small numbers of participants who believe deaf people do not communicate with non-deaf.

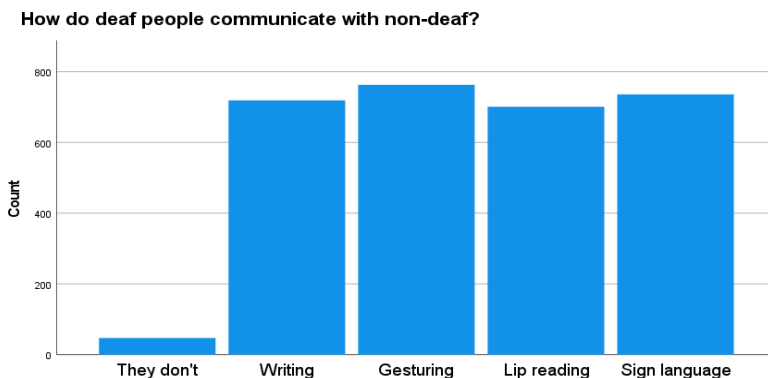


Figure 6: Answers on how deaf people communicate with non-deaf.

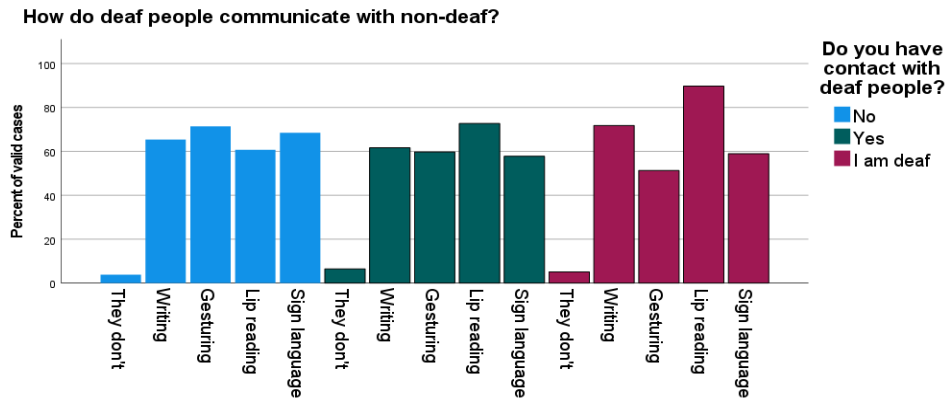


Figure 7: How deaf people communicate with non-deaf, grouped by contact with deaf people.

One of the more revealing questions was whether the participants think sign language is different from country to country. Almost one quarter (24.1 %) believe sign language does not change across different countries. However, when grouped by contact with deaf people (Figure 8), it becomes more obvious that those who do not have contact with deaf people are the most likely to believe there are no differences between sign languages used in different countries. The share of people with this opinion reduces for those who have contact and then reduces again for those who are themselves deaf.

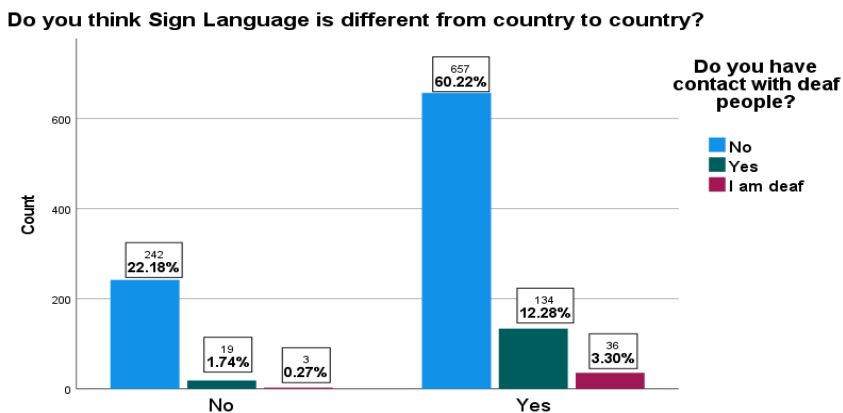
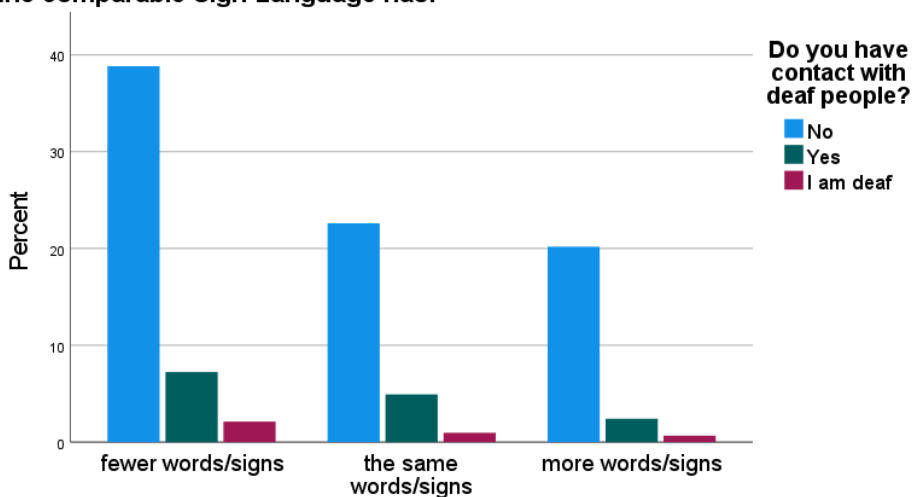


Figure 8: Is sign language different from country to country, grouped by contact with deaf people.

The comparison between the spoken language and sign language (Figure 9) shows that participants in decreasing order believe the sign language has fewer, about the same, or more signs/words than a spoken language. The proportions between them are also similar in all categories, although those with no contact with deaf people do have a slightly higher chance to believe sign language has more words/signs than a spoken language. Overall, the results are quite surprising, but perhaps the participants were thinking in terms of the expressiveness of a language rather than unique words/signs.

**In comparison with the spoken language vocabulary,  
the comparable Sign Language has:**



**Figure 9: Sign language in comparison to written language, grouped by contact with deaf people.**

We have also asked the participants how interested they were to learn their national sign language and/or the IS. Interestingly, 80,6 % were interested in learning sign language, and 80,3 % were interested in learning the IS, even though only 17,8 % of participants had previously been aware of the IS. As expected, deaf people, followed by those that have contact with the deaf community, are much more likely to have come across IS before (Figure 10). Given the option to take a sign language course in their studies, 73,4 % of participants answered they would be interested in doing so. Interest was slightly higher among the deaf and those who have contact with deaf

people (Figure 11); however, still very high even among those with no interaction with the deaf community.

**Are you aware of International Sign?**

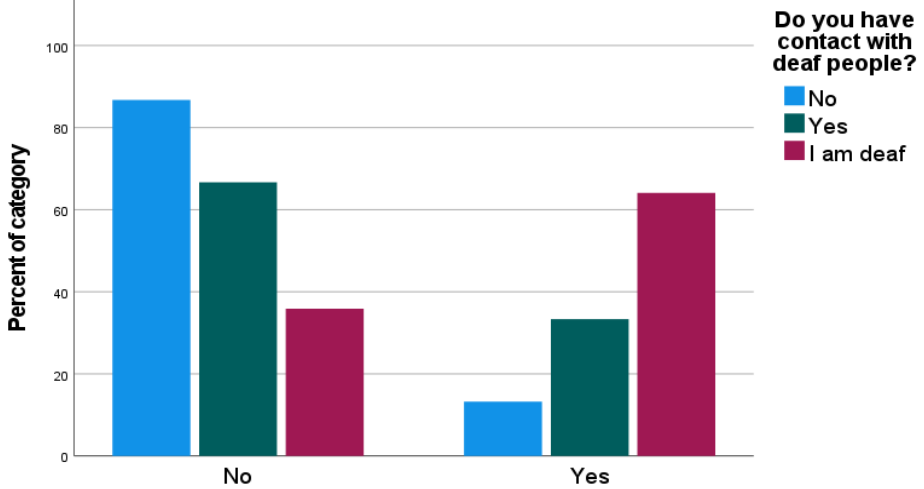


Figure 10: How well known is the International Sign, grouped by contact with deaf people.

**Would you be interested in taking an elective course in Sign Language if available?**

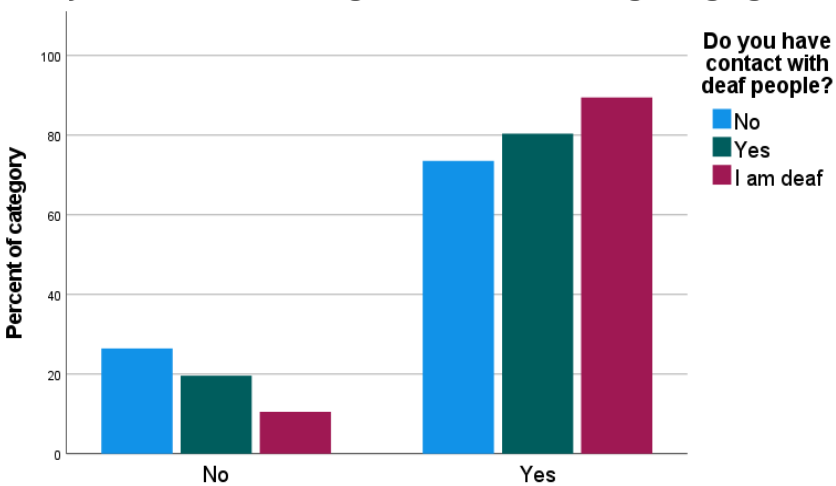


Figure 11: Interest in taking an elective course in sign language, grouped by contact with deaf people.

## 4.2 Guided Interviews on International Sign

In addition to the survey, we have also performed guided interviews with members of the deaf community and those in direct contact with them (e.g. teachers or interpreters) Across all project partners we have interviewed 54 individuals. During the guided interviews, we have tried to ascertain things like:

- How commonly is International Sign language used?
- Does the interviewee use International Sign language?
- How do you learn International Sign language?
- How do you communicate with foreign deaf if you don't know IS?
- How easy is it to understand the International Sign language for someone skilled in national sign language?
- Have you ever seen International Sign language in use?
- How difficult do you find International Sign language compared to your national sign language?
- Do you think that it would be an advantage if only International Sign language would exist?
- What are the advantages/disadvantages of the International Sign language?
- Does International Sign language have any legal standing in your country?
- Do you know of any variations in the International Sign language?
- Do deaf people use IT courseware and digital content frequently?
- Are the technological solutions (e.g. cochlear implants) well accepted?
- How difficult is it to learn International Sign language to a point where you are able to communicate?

Here we present a summary of the feedback from the interviewees. For the full report of the guided interviews, we will again refer you to the national reports from Cyprus [3], Germany [4], Greece [5], Portugal [6], and Slovenia [7].

## Cyprus

In Cyprus, ten deaf people, nine women and one man, agreed to participate in the guided interviews about their knowledge of International Sign. Two people were over 50 years old, 5 were over 30, and 3 were over 20 years old. All 10 have severe to very severe hearing loss, two of whom have cochlear implants, and 4 have hearing aids (which they do not wear on a continuous or daily basis but use optionally, depending on their needs).

From the interviews, we learnt that 5 of them communicate in the local sign language and have done so from the age of about 5. In terms of employability, 6 people are unemployed, 2 work in the public sector and 2 in the private sector. Furthermore, the 3 working people are Sign Language Teachers, and 1 has been an active member in the social community and trade union in the last 7-8 years.

From the answers received during the interview, most deaf people know about the IS; however, they don't use it because they know only some basic signs. All of them agree that IS is not popular among deaf people in the country, especially the older. They added that they know very few people that know IS. They mostly use it when travelling and communicating with the deaf from other countries. They learned more signs of IS by attending international workshops, seminars, and videos.

In the question, if they know where to study and how to learn the IS, they answered that there are no schools to teach the IS and that deaf people know IS through interaction with deaf people from other countries. For those who do not know IS, communication with the deaf from other countries is done through lip-reading, writing, and pantomime or they ask for assistance. All participants claimed that they have experience of people using the IS, during educational seminars, in videos, on the internet, in parties, festivals, events...

The participants were of the opinion that understanding IS is easy if one is skilled in the use of national sign language. If you know the signs of your national sign language very well, you can very easily understand the IS because many signs in the national sign language are similar in the IS.

On the question of difficulty between IS and the Cyprus sign language, they gave different viewpoints: e.g. some said that IS is easier than CSL because the signs in the IS are simpler and contain mime elements. Others said that CS is easier because they have been in contact with it from a very young age and so easier to understand than IS. One person said that they are equally complex.

To the question of only having the IS would be an advantage, the answers were mainly negative. Interviewees believe that national sign languages are important because their cultural setting distinguishes them, and they have a different identity matching with the spoken language. However, they believe that it would be beneficial to learn the IS and use both national sign language and IS because they both have different usage, and if IS was widely used, communication would be easier among the deaf.

As far as the question, if they know any variations in the IS, the majority answered that from their experience, it seems that IS has variations, and they believe that these variations exist because of the influence by the national sign languages, the different dialects in the countries and the personality of speakers. They believe that it would be useful to evaluate the IS knowledge qualifications of candidates for education admission or employment.

Finally, mostly young deaf people use IT courseware and digital content frequently because they help them communicate, and many useful online applications address their needs. In addition, cochlear implants are used and are well accepted by deaf people.

## Germany

In the guided interviews, the national stakeholders in Germany were interviewed. The questions used in the interviews were translated into German. Owing to Germany's lockdown and safety measures, we were able to conduct only three guided interviews. The first participant was a provider of pastoral care for the deaf in the Evangelical Church of Westphalia. The second participant has successfully finished the German Sign Language course at the Volkshochschule Siegen and has a deaf aunt and hard of hearing father. The third interviewee was the secretary of



the Chair of Structural Concrete (ger. Lehrstuhl für Massivbau) at the Department of Civil Engineering, the University of Siegen, whose sister is hard of hearing.

In summary, different ways of communication are often used in international settings. These, however, might lead to an unclear picture or misunderstandings. International Sign presents an opportunity for easier communication in international settings. However, the lack of IS material and places where one can use it frequently might cause the language to die out. The use of digital content by deaf people opens the door for innovative solutions that close the gap between different communities. The choice of using Cochlear Implants (CI) depends mainly on the personal preference and the culture of the community where the person is raised in. The parent situation (i.e. hearing or deaf parents) and age of person raises many questions about whether it benefits the person.

## Greece

The survey was carried out by Hellenic Mediterranean University based on guided interviews. Interviewees (24 participants) were Greek deaf people, interpreters of GSL, researchers on GSL, citizens who know GSL, or personnel from an organisation dealing with the Greek Sign Language, and organisations (public or private) dealing with the education of the deaf. The survey was originally planned to be conducted through face to face interviews, but due to restrictions imposed because of the pandemic of Covid-19, the survey was conducted online with the use of Google forms.

The majority of participants (91,7 %) claimed that they know of IS, but they were not confident about its popularity in Greece. They seem to believe that IS is more popular among young deaf people, who are able to use IT, communicate with people from abroad and take part in international deaf festivals. The majority of the participants (82,6 %) have seen IS in use, mostly on the internet. The interviewees were also asked if they know how many people with hearing problems are aware of IS. Nine participants (37,5 %) tried to estimate the percentage of deaf people knowing IS, but their answers varied from 2 % to 70 %. Only 10 out of 24 participants (41,6 %) answered that they do not use International Signs. However, most of the participants (58,3 %) answered that they partially know IS and use it in order to communicate when travelling abroad, hosting friends from other countries

or being hosted by friends during European events and international festivals, in interpretations and social networks. Participants who know IS believe that it is quite easy in comparison to national sign language.

Concerning learning IS, most of the participants answered that they would learn or have learned IS mostly through experience and communication with foreign deaf people or through deaf friends who know IS. The rest of the participants would search for a deaf teacher or a sign language learning school or would learn it from specialised internet sites and H3 World TV that often broadcasts cultural and athletic programs using IS, or would seek for information at the Hellenic Federation of the Deaf or the National Deaf Institution. One participant would look for a European program concerning learning IS.

Participants who don't know IS would try to communicate with foreign people using GSL, or words they know in British Sign Language but mostly using pantomime, descriptive movements, facial expressions, the posture and movement of the body. They would also use classifiers, which are not several words but are used in any local sign language. The interviewees were also asked whether IS is easy to understand by someone skilled in national sign language. Most of them (52 %) claimed that it should be easily understandable, and only 13 % were negative.

When the interviewees were asked whether it would be an advantage if only IS would exist, the overwhelming majority (86,9 %) disagreed. Most of them accepted that IS should be learned by all people, especially by deaf people as a second language. They also insisted that IS should not be used instead of the local sign language but in addition to it, since national languages are a consequence of history and culture and not only a code.

Regarding the questions that referred to the advantages and disadvantages of the IS, most of the participants agreed that the most important advantage is the achievement of communication. It is also useful when travelling, studying or even working abroad. On the other hand, they claimed that IS is not a complete language but only a code for basic communication and also, it cannot be precisely translated since there is not much vocabulary. They also mentioned the danger of losing local sign languages if young people communicate only in IS.

The majority (69 %) of interviewees answered that they know about the legislation for the recognition of the GSL as an official language for deaf people and people with hearing problems in Greece, but they did not know the legal status of IS in Greece. Concerning the International Sign variations, 48 % of the participants answered that IS has different dialects since it borrows elements from many local sign languages and differs according to the person using it. 22 % of them claimed that IS is the same everywhere, and 30 % of them did not know.

When interviewees were asked whether deaf people use IT courseware and digital content frequently, most of them (59 %) were positive, and 18 % of them claimed that deaf people often use IT courseware and digital content.

Regarding the difficulty of learning IS to a point where someone is able to communicate, the majority of interviewees (76 %) could not give a specific answer. The rest of them answered that someone should try to know as many words as possible but answers varied about the knowledge level. There were also two answers claiming that IS is not a language, so there is no basis, and there are no levels of knowledge.

## Portugal

To complement the online survey and to grasp an understanding of the current standing of International Sign in Portugal, we have interviewed deaf and non-deaf teachers from a school for bilingual education of the deaf, deaf colleagues from the School of Education of the Polytechnic of Porto who teach sign language to non-deaf students and deaf representatives from the European Union of the Deaf who have an overall understanding of the use of International Sign in Europe. The interview with the representatives from the European Union of the Deaf was held on the phone with a sign language interpreter. The interview with the colleagues from the School of Education was held on Zoom with the cooperation by a former student for interpretation. The meeting with the colleagues from the school of the deaf was held at their premises, in Braga. They teach at Dona Maria II, a reference school for the education of the deaf from kindergarden up to secondary school.

In general, the opinions are similar and reveal a very weak knowledge and very rare use of International Sign in Portugal and in general. International Sign is mostly being used in international conferences and events of big dimension organized by the deaf communities. Deaf users see International Sign as a mere collection of signs that are placed together with no adherence to the deaf identity and culture.

This was a surprise for us since we had the chance to observe International Sign being used at COINES 2017. COINES is a yearly congress organized by the Brazilian Institute for the Education of the Deaf that has nearly one thousand participants. In its 2017 edition, there were more than 800 deaf participants coming from all over the world, mostly from South and Central America. It was amazing to see on stage the speaker, signing in LIBRAS, the Brazilian Sign Language, together with 5 or 6 sign language interpreters all lined side by side that were signing in their own sign language. In front of the stage, in the first row, there was an interpreter signing in International Sign the speech from the person presenting.

In Portugal, it is very difficult, not to say impossible, to find an interpreter mastering International Sign. The language is not taught except for an exception at the University of Coimbra.

## Slovenia

We have interviewed twelve people. The majority of them were women, and only three were men. Four were deaf, one was hard of hearing, and the rest can hear. We interviewed two students. One of them was deaf but did not know sign language (she has a cochlear implant), while the other does know Slovenian sign language but is not deaf. Four out of the twelve were interpreters for SSL, and three of the interviewees use IS, mostly on international conferences, visits abroad, online international meetings, and social media. They were all very well connected with the deaf community (researchers/educators in the field of disabilities, teachers of deaf children or other positions in education that often brings them into contact with the deaf, and members of the WFD, Deaf and Hard of Hearing Clubs Association of Slovenia, or local deaf clubs). The interviewees were not average members of the deaf community and were, on average, very highly educated.

As expected, the interviewees have confirmed that IS is not used much in Slovenia; however, there were international events where IS was used, even though there are no certified IS interpreters in Slovenia. It is used in international meetings (predominately online) or on social media. The general feedback was that IS is more well known and accepted among the younger generations.

The majority of those that know about IS were of the opinion that you learn it from looking and conversing with others who already know IS. There is basically no written literature. There are some videos online that show the basic signs (for the international audience, not in Slovene). There is no school for it in Slovenia, but there have been workshops on IS organised by the Deaf and Hard of Hearing Clubs Association of Slovenia.

Communication with foreign deaf people is performed with the best available method. Those who know SSL use basic and natural signs understood in other languages in combination with face mimic and body language to get their message across. Others who do not know any sign language either use interpreters if they have access to one or they write or draw their message. Reportedly, knowing SSL is enough to be able to understand at least the general meaning of the communications performed in IS.

Interviewees were unanimous in expressing their opinion that IS cannot be used to replace natural sign languages.



## 5 Discussion and Conclusion

Reports from Cyprus, Germany, Greece, Portugal, and Slovenia show that the situation of the deaf in each of these countries are not too dissimilar. In general, there has been much effort put into improving the accessibility of deaf persons to all areas of life. National sign languages have established learning processes and have organisations that support, develop and teach them. They are also relatively well supported by technology with different online tools to help communications and learning. The progress in terms of development and support for the national sign languages and related education has been increasing; however, particularly in education, there are still some significant problems. The most significant appears to be the lack of teachers who can use sign language. Schools themselves that are fairly rare are usually far away and therefore not convenient for families with deaf children. Education options for deaf students also become a big limiting factor as they progress to higher levels of education.

On the other hand, the support for the International Sign is basically non-existent in all of the participating countries. Except for one course in Portugal, none of them reported any form of ISs inclusion in education or any other less formal learning opportunities. The only mention of something like this was from Greece, where they had short seminars, but they are not offered regularly or often. Therefore, those who wish to learn the IS are left to their own devices. This is especially problematic as we have noticed a general lack of IS learning materials, especially in languages other than English. This is unfortunate as many project partners report interest in learning IS,

especially from the younger population, who find such a form of communication especially valuable for international communication (for travel or over the internet) and entertainment. The interest in learning a sign language and IS is also supported by the results of the survey performed in the project.

IS is not a real language, and it does not mean, nor is it the aim of this project, to replace natural sign languages. This nature of the IS and its at least partial dependency on the signer's knowledge and their primary sign language was also regularly emphasised by the participants in our guided interviews. This, we believe, could also be one of the major challenges we are faced with as we proceed with the project.



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## *Appendix A*

List of questions in the performed survey.

1. Do you have contact with deaf people?  
(Yes, No, I am deaf)
2. Do you think deaf people can read fluently and understand Slovene?  
(Yes, No)
3. How do deaf people communicate with each other?  
(Writing, Gesturing, Lip reading, Sign Language)
4. How do deaf people communicate with non-deaf?  
(They don't, Writing, Gesturing, Lip reading, Hand signs)
5. How do you communicate with a deaf person?  
(open question)
6. Do you know Sign Language?  
(Yes, No)
7. Do you think Sign Language is different from country to country?  
(Yes, No)
8. Would you like to learn a Sign Language?  
(Yes, No)
9. Would you be interested in taking an elective course in International Sign if available?  
(Yes, No)
10. In comparison with the Slovene vocabulary, the Slovene Sign Language has:  
(fewer words/signs, the same words/signs, more words/signs)

11. Are you aware of International Sign?  
(Yes, No)
  
12. Add any suggestions to assist deaf students in education, classroom,  
academic life:  
(open question)

*Appendix B*

Frequency tables for all close-ended questions from the survey across all project partner countries.

**Partner Country**

		Frequency	Percent	Valid Percent
Valid	Cyprus	40	3.6%	3.6%
	Germany	365	33.0%	33.0%
	Greece	268	24.2%	24.2%
	Portugal	244	22.0%	22.0%
	Slovenia	190	17.2%	17.2%
	Total	1107	100.0%	100.0%

**Do you have contact with deaf people?**

		Frequency	Percent	Valid Percent
Valid	No	911	82.3%	82.5%
	Yes	154	13.9%	13.9%
	I am deaf	39	3.5%	3.5%
	Total	1104	99.7%	100.0%
Missing	System	3	.3%	
Total		1107	100.0%	

**Do you think deaf people can read fluently and understand written language?**

		Frequency	Percent	Valid Percent
Valid	No	305	27.6%	28.0%
	Yes	786	71.0%	72.0%
	Total	1091	98.6%	100.0%
Missing	System	16	1.4%	
Total		1107	100.0%	

**How do deaf people communicate with each other?**

		Responses		Percent of Cases
		N	Percent	
Valid	Writing	543	18.5%	49.1%
	Gesturing	786	26.8%	71.0%
	Lip reading	633	21.6%	57.2%
	Sign language	972	33.1%	87.8%
	Total	2934	100.0%	265.0%

**How do deaf people communicate with non-deaf?**

		N	Percent	
		Valid	They don't	
Valid	Writing	719	24.2%	65.0%
	Gesturing	763	25.7%	68.9%
	Lip reading	701	23.6%	63.3%
	Sign language	736	24.8%	66.5%
	Total	2966	100.0%	267.9%

**Do you know Sign Language?**

		Frequency	Percent	Valid Percent
Valid	No	827	74.7%	74.8%
	Yes	278	25.1%	25.2%
	Total	1105	99.8%	100.0%
Missing	System	2	.2%	
Total		1107	100.0%	



### Do you think Sign Language is different from country to country?

		Frequency	Percent	Valid Percent
Valid	No	264	23.8%	24.1%
	Yes	830	75.0%	75.9%
	Total	1094	98.8%	100.0%
Missing	System	13	1.2%	
Total		1107	100.0%	

### Would you like to learn a Sign Language?

		Frequency	Percent	Valid Percent
Valid	No	212	19.2%	19.4%
	Yes	878	79.3%	80.6%
	Total	1090	98.5%	100.0%
Missing	System	17	1.5%	
Total		1107	100.0%	

### Are you aware of International Sign?

		Frequency	Percent	Valid Percent
Valid	No	905	81.8%	82.2%
	Yes	196	17.7%	17.8%
	Total	1101	99.5%	100.0%
Missing	System	6	.5%	
Total		1107	100.0%	

### Would you like to learn International Sign?

		Frequency	Percent	Valid Percent
Valid	No	215	19.4%	19.7%
	Yes	878	79.3%	80.3%
	Total	1094	98.8%	100.0%
Missing	System	14	1.3%	
Total		1107	100.0%	

**Would you be interested in taking an elective course in Sign  
Language if available?**

		Frequency	Percent	Valid Percent
Valid	No	270	24.4%	24.9%
	Yes	813	73.4%	75.1%
	Total	1083	97.8%	100.0%
Missing	System	24	2.2%	
Total		1107	100.0%	

**In comparison with the spoken language vocabulary, the  
comparable Sign Language has:**

		Frequency	Percent	Valid Percent
Valid	fewer words/signs	500	45.2%	48.2%
	the same words/signs	296	26.7%	28.5%
	more words/signs	241	21.8%	23.2%
	Total	1037	93.7%	100.0%
Missing	System	70	6.3%	
Total		1107	100.0%	

# COMMUNICATION CHALLENGES IN INCLUSIVE EDUCATION FACED BY DEAF AND NON-DEAF PEOPLE

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**Abstract** This is a consolidated report on the work done in Intellectual Output One: Communication Challenges for the Advancing Inclusive Education Through International Sign - InSign project. This report combines and summarises the results obtained in national reports done by project partners from Cyprus, Germany, Greece, Portugal, and Slovenia. This document includes information on national sign languages, support for deaf people and their learning possibilities in different countries. In one section, we will review the status of International Sign in all the partner countries. We have also performed surveys done primarily with students to measure how they perceive deaf people, how they understand sign language and the difficulties deaf face in the education system. In this document, we analyse the data collected across the project partners. Each partner has also performed a guided interview with those most familiar with the deaf community (deaf themselves, educators, interpreters etc.) to help better understand the circumstances and answer some of the questions difficult to find in literature. The Consolidated Report summarises interview findings from national reports with the main takeaways.

**Keywords:**  
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