Written Interpreting in Individual Countries

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Abstract
Written interpreting is a topic of interest for deaf, deafened and hard of hearing people, for written interpreters themselves and for scientists. However, quiet often one does not know what is going on in other countries, and therefore is challenged to collect data again and reinvent the wheel again or search for a written interpreters in other countries without success. Language barriers and different expressions for the service make things difficult. This paper shows the result of a survey done in 2012 including data of 25 countries. Expressions of written interpreting, the different techniques used as well as the establishment of written interpreting in the countries are discussed. Attached are portraits of the different countries.

1 Challenges in the international context of written interpreting

Written interpreting, a service for deaf, deafened and hard of hearing people[1], is done in many different countries all over the world. In some countries it is very well established, laws and regulations for the use and funding do exist, training takes place at universities and research is done. Other countries struggle to even get started with it. The remaining countries are located somewhere between these extremes. An exchange between all countries can encourage the involved parties and support them with information and know-how. Therefore, a common communication base is needed and this is what the article strives for. The following points will be discussed:
1) What is written interpreting?
2) What are similarities and differences of the used techniques?
3) How established and accepted is written interpreting in the individual countries?

In an international exchange, researchers and involved people have to overcome language barriers. It is even difficult to find literature if the name of this kind of service in another culture is unknown or only abbreviations are used. For example in English there are many ways of naming the service: Speech-to-Text-Reporting (STTRing) in the UK, CART (which is used for Communication Access Real-Time Translation or for Computer Assisted Real-Time Translation) in the USA, also open captioning, (real-time) subtitling, speech-to-text-interpreting (STTI), note taking, CAN (Computer Assisted Note Taking) or just speech-to-text services (Stinson et al. 1999). Other cultures name techniques like stenographing, respeaking or voice writing, velotyping, palantyping etc. when referring to this kind of service. The great variety of expressions can cause misunderstandings and misinterpretations. The questions are: What are the similarities and what are the differences? Or: What is written interpreting? This is one of the problems this article will tackle.

1 The receptors of this service are mainly hard of hearing and late deafened people, because spoken language is their native language. Deaf people usually use sign language, and therefore sign language interpreters, but in some situations some of them use speech-to-text-serices, too. Hence, all three groups are named in this paper.

Of course, one of the main differences in countries are the techniques used for fast writing in relation to speech-to-text-services. Some written interpreters use traditional keyboards, others use computerstenography (i.e. syllabic phonetical writing) or veyboard / velotype (i.e. syllabic writing) or speech recognition software (i.e. respeaking the heard). For further discussion, a brief overview of the different techniques will be given in this article. However, people have explained these techniques before, but the main focus so far has been on the usage itself or on speed and accuracy. This kind of discussion easily gets competetive. Our view will be: What is the link between these techniques? What do they have in common? This shall be discussed in the following pages.

Whatever the names and the techniques of written interpreters are, the acceptance and development of written interpreting in the individual countries is an important factor concerning quality, use and political work of written interpreters as well as of the deaf, deafened and hard of hearing people. The European Speech-to-Text Association (ESTTA) is forming at the moment, aiming to set a base for further development, establishing of quality standards as well as pushing the political work. Other countries all over the world may have similar problems or new solutions. The article will show the actual situation. Additionally, in the appendix a brief summary of each described country will be given.

2 Written interpreting

Because of the many expressions of STTRing, STTling, captioning etc. and their different meanings, the neutral expression “written interpreting” will be used in the following to refer to this sort of service.

Although forms of written interpreting are described quite regularly, definitions are quite rare. The first definition was given by Stuckless in 1994, where he points out

> “[…] real-time speech-to-text is defined as the transcriptions of words that make up spoken language accurately into text momentarily after their utterance.” (Stuckless 1994:198)

This short definition provides important keywords like “real-time” and “spoken language into text”, “accurately” as well as “momentarily after” which points out that there is some kind of delay the written interpreter will have to deal with (see Ohrankämmen 2008). According to Stuckless the delay shall be “under three seconds” (Stuckless 1994:199). This shows a typical problem of written interpreting, because there is nearly no time for correcting mistakes or trying to figure out what has been said.

However, Stuckless didn't include the receptor of the service, the deaf, deafened and hard of hearing in his definition (although they were mentioned quite a lot in his paper) and limits his definition to “transcription of words”, which shall be done “accurately” i.e. free of word errors, free of deletions or additions, but verbatim i.e. word-by-word. The expression “transcription” and the description of “accurately” fits for transcripting tape records, but not for real-time communication situations. The only solution to this accurate-transcription-in-real-time-problem seemed to be speed. Publications discussed speed and verbatim accuracy since then (Salakari 2008, Ohrankämmen 2008, Kruijk et al 2012). One result is, that speed is needed undoubtedly, but a result is also that there is more to a conversation than just words and more to a text of a written interpreter than just words lined up. Names of

speakers and punctuation marks have to be added, sounds, too, if needed, prosodical features, irony etc. (Tiitula 2006:1)

> "According to the rules, everything should be written, even dialect, hesitations and various elements of spontaneous speech. However, if everything were to be exactly transferred, the text would not be readable nor understandable. Spoking language includes also many elements which are not transferrable but which are still important for understanding, such as prosodical features." (Tiitula 2006:481)

Tiitula, famous for her work about written interpreting, therefore adds the keyword "understandable" to the definition and that the aim of written interpreting is to give access to this dynamic, interacting process of communication. Furthermore she claims that with written interpreting "a spoken message is transformed into a written form simultaneously with speech." Talking about "messages" and "transforming" a meaning-by-meaning transfer comes into focus, with it's reductions, rephrasing, omissions etc.

These reduction strategies were associated with a limited speed in writing, like written interpreting by traditional keyboard or the so called "note taking". Kruijk et al (2012), who did research on the effectiveness of written interpreters, found that reduction is done with veyboard or velotype, too. Whereas for a long time stenography (see Stuckless 1994, Stinson 1999) and respeaking, (see Keyes 2011) were associated with verbatim and word-by-word work and expressions like "captioning" or "reporting" (see Association of Verbatim Speech-to-Text Reporters 2008) or "CART" (see Knight). However, Downey attested for live situations that the

> "[...] old standard of verbatim transcription had metamorphosed into the requirement that the reporter simply keep pace – which necessarily involved editing, paraphrasing and deleting speech." (Downey 2006:23)

This leads to the idea, that the different ways of written interpreting are not so different as has been thought. A definition that includes the whole range of speed and reduction processes and therefore all systems would be helpful to emphasise similarities, but has not been presented yet.

3 Systems of written interpreting

The literature identifies the following five systems of written interpreting: with pen and paper, with keyboard, with veyboard or velotype, with stenography, and with respeaking.

Written interpreting with pen and paper or at an overhead-projector

Before computers were used, people assisted deaf, deafened and hard of hearing people with pen and paper or wrote on an overhead-projector for meetings of associations of hard of hearing people. The writing rate is about 30 words per minute and therefore more or less explains the topics of discussions but does not allow real access to a discussion (Stuckless 1994:202-203). De Preter and Maes (2012:17) discuss that pen and paper could still be useful for the written interpreter if there is no electricity or the locations have to be changed. Pen and paper therefore can be seen as a tool for a short difficult period during an assignment.

Written interpreting with keyboard

Keyboards are available for all languages, are cheap and easy to achieve. The physical limit of typing leads to the use of shortcuts and abbreviations. Ergnonomic

keyboards or other special types of keyboards may be used by the written interpreter to work more smoothly (different amount of pressure for typing, different hights of keys), more ergnonomically (ergonomic keyboards or devideable keyboards) and/or quieter (lower noise level of keystrokes).

Written interpreter with veyboard or velotype[2]
Veyboard and velotype belong to the group of chord keyboard, which allows to write syllabic. The chord keyboards are designed in a way that allows the user to stroke a whole syllable at once. The syllabic beginning is on the left side (consonants), the syllabic mid in the middle (vowels) and the syllabic end on the right side (consonants). For veyboard and velotype (both invented in the Netherlands), the key-stroke correlates with the written letters. Therefore it is easy to adapt it to new languages. However, some letters can only be produced in combination of several keys. To gain speed, shortcuts and abbreviations are used.

Written interpreting with stenography
Coming from hand stenography to stenography machines the final step in the development of stenography are computer compatible steno machines, which are used all over the world for reporting. These are chord keyboards using a similar concept of key layout as the veyboard or velotype, but the syllables at the steno machine are pressed correlated to their phonetic sounds; shortcuts are used frequently. For example: Pressing “H O U” can lead to the output “how”, “R U” becomes “are you” (Libermann 2004). Problems with homophones are possible e. g. if the written interpreter wants to get the output “RU” instead of “are you”.

Written interpreting with respeaking / Written interpreting with speech recognition
The development of faster processors and bigger working memories made it possible that speech recognition software became a new technique for written interpreters. The written interpreter trains the software on his/her voice and his/her way of pronounciation. The written interpreter then repeats respective respeaks the spoken words. Punctuation marks, names of speakers, sounds etc. are added by speaking, too. Special commands and vocal shortcuts are used to increase speed. For high quality written interpreting, written interpreters are trained on accurate pronunciation even in fast speech, add possible words to their vocabularies and use vocal shortcuts. Mistakes are corrected during the process via traditional keyboard. Additional software makes it possible for written interpreters with respeaking to co-work during an assignment.

It is important to point out, that written interpreting with speech recognition or written interpreting with respeaking is not automatic speech recognition (ASR). ASR[3] is a technical solution, which uses a speech recognition software on the main speaker and tries to transfer spoken language automatically into written. As punctuation is not spoken, it does not appear in the resulting texts. A new line or a comma indicates where the speaker makes a pause e. g. for breathing. This is the only resulting structure. Nonverbal or other acoustic elements are not included and a coherence can not be produced, e. g. for irony, laughing while speaking, pointing at objects etc. High rates of mistakes or a relatively long delay before delivering the text is usual, too. For all these reasons (no human interpreter involved, low accuracy, no coherence implementation, no decision-making), this technology is excluded and is not discussed in this paper.

2Although the layout is similar, there is a struggle whether to name this sort of keyboard “veyboard” or “velotype”

3 Automatic speech recognition is also known as “speech to text” which causes even more confusion.

Although the differtent systems are described and discussed in the literature, no one seems to compare them except for speed and accuracy. But when five systems are used, there must be a reason why they all exist.

4 Training, legal implementations and other aspects of written interpreting

A topic all systems have to deal with is quality. Training will be needed to fulfil the inferred requirements: Transform simultaneously a spoken message into an understandable and/or accurate written form so that deaf, deafened and hard of hearing people can get access to the dynamic, interacting process of communication.

Concerning quality issues, Wagner (2005) already mentioned that the time needed for training goes from hours up to years. Unfortunately the sources of her work are not fully available and her results do not go well with everyday experience, where some hours or days of training are never enough to become a written interpreter irrespective of the used technique. Another important issue of training is the educational level of the training. De Preter and Maes (2012) have done a wonderful work showing the state of the art of several countries, including training conditions. They show that the range goes from self-learning to training at university level and that the development of written interpreting is very different in the individual countries. They come to the conclusion that each country has it's own way of developing written interpreting. As important factors they name the users, the occupational organisations or associations, the existing laws and regulations as well as the training of written interpreters.
However, their research was limited to 11 countries and more information would be of interest.

5 Concept and Methodology

To find out more about expressions of written interpreting, the used systems and the state of the art in the different countries a questionnaire was sent to experts for that country or at least to known written interpreters, associations of written interpreters, associations of hard of hearing people, Intersteno, research centers, technology providers and universities for deaf people and technology. This was done in 2012. The questionnaire for Greece was handed in in 2014, the answers are included in this paper, too.

It was expected, that most participants would not be able to answer all questions. Therefore, the questionnaire included the option “don’t know” for each question. For countries with more than one dataset, the answers were compared to each other. If there were great differences between answers or misunderstandings were suggested, further questions were send or more detailed explanations were requested.

Concerning expressions and definitions, the participants where asked to name the expression for written interpreting in their country. They were also asked to give a literate translation into English. To gain deeper insight into the meaning of written interpreting in that country, participants had to name different possible working areas, such as at schools, in hospitals, at universities, at court, subtitling, protocolling, assistance for hard of hearing etc. They were also asked if the text is verbatim or meaning-by-meaning, if they understand written interpreting as “interpreting” and if decision-making takes place.

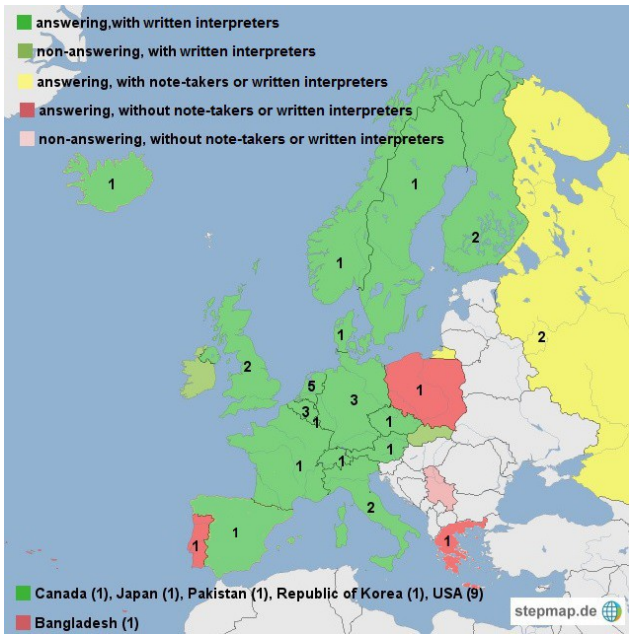
To get more information about techniques, several questions were asked concerning the used techniques, prices, speed and the reasons why these techniques are used and others are not.

Acceptance and development of written interpreting in a country is a question of implementation of the service (legal implementation, occupational implementation, number of written interpreters), and establishment of quality issues (training, exams and certificating). These issues have been evaluated, too. To give an idea about the usage of written interpreters, the number of hard of hearing people was compared with the number of written interpreters. Deutscher Schwerhörigenbund (2006) did a research comparing the numbers of hard of hearing people in several countries. Overall there are about 19.8 % of the population who suffer from hearing loss, about 8 % with moderate or more severe hearing losses, which are the main user group of written interpreting. So, using population statistics, 8 % of the population were calculated for each country. The resulting quotient (number of hard of hearing people per one written interpreter) shows how many hard of hearing people share one written interpreter in that country – and therefore (can) use the written interpreter whenever needed or only in special situations.

To compare the establishment of written interpreting in the different countries a rating of the different aspects (number of interpreters, occupational level, legal implementation) is done. Higher ratings assume better establishment, the maximum attainable score is 13.
Concerning the number of hard of hearing people per interpreter, 1 to 4 points were given.
For the occupational level up to five points are available. One point was given if the written interpreters in a country are trained (independent of the fact if they were trained in that country or another). But if the training was only an introduction or only a training for speed 0.5 was subtracted. Training duration was rated with 0.3 for less than half a year of training, 0.7 for up to 1 year and 1 point for more than 1 year of training. The level of training ranged from academic training with bachelor's degree (1 point), training on other public institutions (0.7 points) to training at private institutions, associations and online training (0.3 points). If an exam or a certificate identifies trained written interpreters with high quality another point was earned. At last there was one point given in case that an organisation or association for written interpreters exists in a country.
For the legal implementation 4 points were possible: 0.5 to 1 point depending on the existence of laws and regulations concerning the use and payment of written interpreting. 1 to 3 points for the situations in which a written interpreter could be used and a payment regulation does exist i.e. that the deaf, deafened or hard of hearing people do not have to pay for themselves but a cost bearer is responsible. For all ratings zero points were given if there is no information available.

6 Participants

46 persons answered for 25 individual countries. This means that for some countries there were up to 9 answers (USA) and a lot of countries had only one submited answer. The number of answers per country can be seen in map 1 below. Some other countries did not respond, although it is known that written interpreting does exist, like Ireland and Slovakia in Europe or Mexico,Costa Rica and Australia abroad. Further countries may have written interpreters, but no information was available.



Map 1: Number of answers per country combined with service availability.

7 What is written interpreting?

Concerning the expressions of written interpreting a great variety of expressions is used in the different countries, which can be categorized as note taker, reporter, interpreter, subtitler, user of a specific system and translator. Table 1 gives an overview over the different expressions.

note taker	reporter	interpreter	subtitler	user of system	translator
note taker, computer assisted note taking (CAN), electronic note taker, hurtigskriver, Schnellschreiber, Yoyaku Hikki, набор, текста, скорость, печати, Ταχυπληκτρολόγος	speech-to-text-reporter (STTR), transcription en temps réel, verbatim reporter, trans-scriptionist, captioner, real-time captioner, Přepisovatel, transcriptor de habla a texto en tiempo real	speech-to-text-interpreter (STTI), print interpreter, writing interpreter, Schriftdolmetscher, skrivetolk, Schrijftolk, Kirjoitustulkki, Schrëftdolmetscher, Interprète consécutif, skriv tolk, Rittúlkur	sous-titrage en direct, Sottotitolazione (in tempo reale), subtitulado en directo, dubtitolado en tiempo real	palantyper, Sokkisha, Sokkikan, Sokkishi, shorthand writer, Computer Sokki, стенограф, realtime stenographer, voice writer, respeaker, velotypie	Communication Access Real-time Translation, Computer Access Real-time Translation, CART-provider

Table 1: Expressions of written interpreting.

Although all these expressions stand for access for the deaf, deafened and hard of hearing people, the expressions contain different meanings. The expressions of the category “note taker” were associated by the participants with handwriting or writing with a traditional keyboard. Looking closer at the topic of “note taking” there are two different kinds of note taking. On one hand, there is note taking in the literal way of taking notes i.e. writing down several words or phrases that seem most important to the writer. This service is used quite often by deaf, deafened or hard of hearing students or pupils to receive notes from colleagues so that they can catch up on subject matter they missed during lessons. On the other hand, there is note taking in the form of written interpreting by traditional keyboard. These “note takers” write quite fast with the keyboard using abbreviations and vocabularies and transfer the meaning of the spoken words, so that the user of the service can participate in the communication. The expression “note taker” for written interpreters with keyboard is

also used in some countries (like the USA and the UK), where written interpreters with stenography do exist, too, and then it is used to indicate that these “note takers” do not work at a verbatim level. Interestingly, eight participants pointed out, that they do word-by-word using a keyboard, three of them explaining, that there is no decision-making in their job, because they only transfer every spoken word.

The category “reporter” links to the history of court reporting, where in the beginning stenographers and later on voice writers, too, work to produce a word-by-word protocol of the judicial proceeding. With court reporting the reporter writes down what is said, but no one is reading it simultaneously. After the proceeding, there is time for the reporter to correct mistakes etc., sometimes using an audio record and then hand out the protocol. For written interpreting, the reporter-expression is associated with stenography and by some participants with respeaking, too. Verbatim work, high speed and high accuracy are demanded from the reporter. All except for one participant think that reporting is not interpreting because they only do a verbatim report. Anyhow, some answered the question about individual decision-making when reporting with “yes”. They explained then, that surroundings or non-verbal expressions must be included sometimes.

The category “interpreter” is not associated with a special system. Written interpreters with keyboard, velotype, stenography and respeaking are included. The expression of “written interpreter” is used mainly in countries where sign language interpreters and written interpreters are trained at the same places, but also in other countries. Participants report word-by-word as well as meaning-by-meaning transfer from spoken into written language, depending on the needs of the user of the service as well as on the speed and length of the assignment. For most participants (but not for all) the term “interpreter” is associated with interpreting. Named reasons are that an interpreter has to “get the meaning across”, “fill gaps”, “add surroundings and non-verbalia”, “use background knowledge” and “use other words” that are better to understand. Concerning language processing, participants had different opinions. Some argue that there is no transfer from one language into another, like German into English, others stated that there is a transfer from spoken language into written language and therefore the interpreter has to do some adaptions to make things readable.

The expression of “subtitling” is used only in Switzerland, France, Luxembourg and Italy. In Switzerland, France and Italy written interpreters also work as subtitlers for television, whereas Luxembourg just took the expression from France. The participants claim that they give access to information, which fits for subtitling, too, but also access to communication when working as written interpreter. They view their work as interpreting, because they are working with “a treatment of speech”.

The category “user of a system” includes only the system stenography, velotype and voice writing. The category is associated with writing fast and working word-by-word. No other conclusion could be gained from the material.

It was decided to give “translator” a new category, although it only contains CART and it's different terms of Communication Access Real-time Translation and Computer Access Real-time Translation. The reason was that it contains the term „translation“ which links it to linguistic disciplines like interpreting, but it is normally separated from interpreting by the fact that translating is done with as much time as you like, while interpreting is working with a lack of time for decisions and producing. However, here „real-time“ is added to translating and it is associated by participants

with word-by-word service and high accuracy as well as with decision-making. Eight participants view it as interpreting, five don't.

What is the conclusion out of this expressions?

1. It is evident that most of the expressions used for written interpreting are overlapping with and are hard to destinguish from other kinds of work like in note taking or subtitling.

2. The expressions are linked more to the history or circumstances of that country than to the literal meaning of the expression.

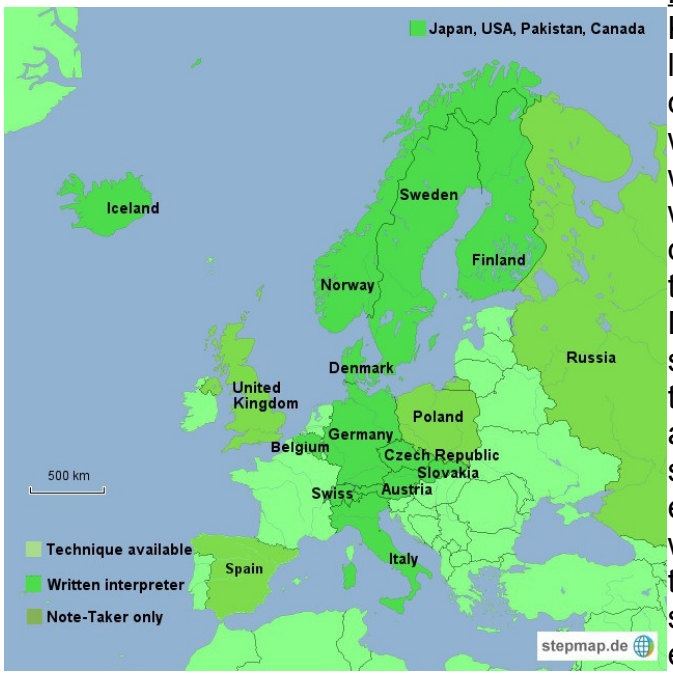
3. Among the participants, there is a uncertainty if decision-making takes place or not, whereas research has already shown that it is taking place in all kinds of written interpreting. Some participants, written interpreters as well as users, are not aware of these processes.

4. As conclusion of the survey and the literature, a definition of written interpreting should include:
a) speed or writing fast,
b) simultaneously i.e. with a lack of time,
c) transfer from spoken into written language,
d) (mostly) for people with hearing loss,
e) making individual, strategic decisions for better understanding and readability,
f) providing access to information,
g) providing access to communication.

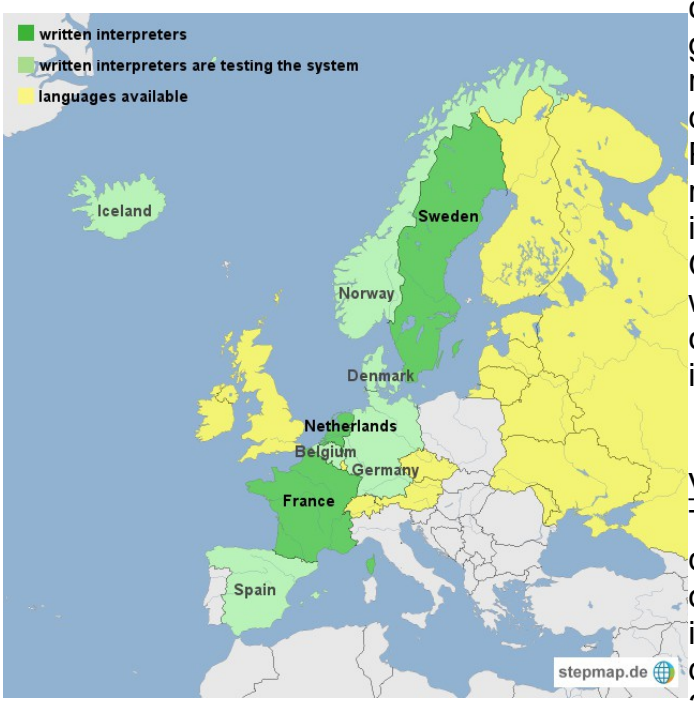
In the discussion (see Chapter 10) an attempt of a definition will be done.

8 What are similarities and differences of the used techniques?

Following, the results for the different techniques will be summarised. An overview will be given in table 2.



Map 2: Written interpreting with keyboard in Europe



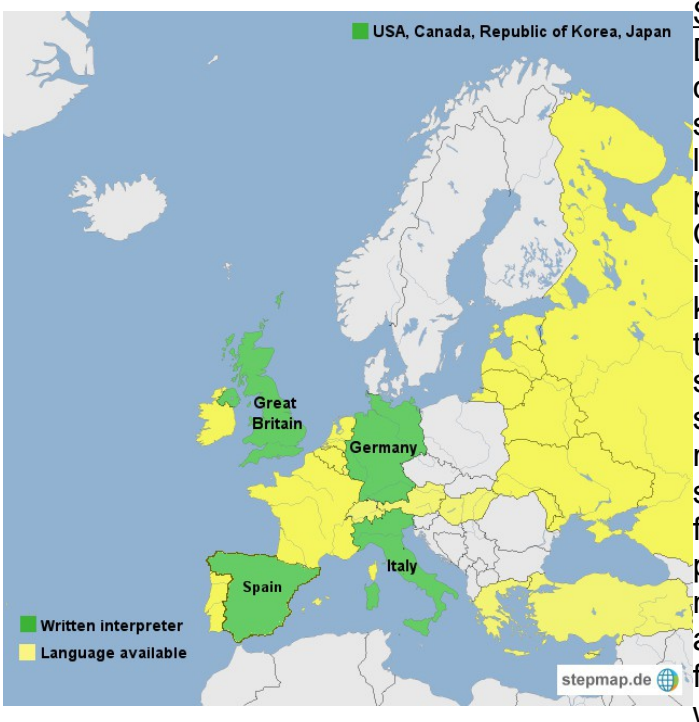
Map 3: Written interpreting with veyboard/velotype

Keyboard

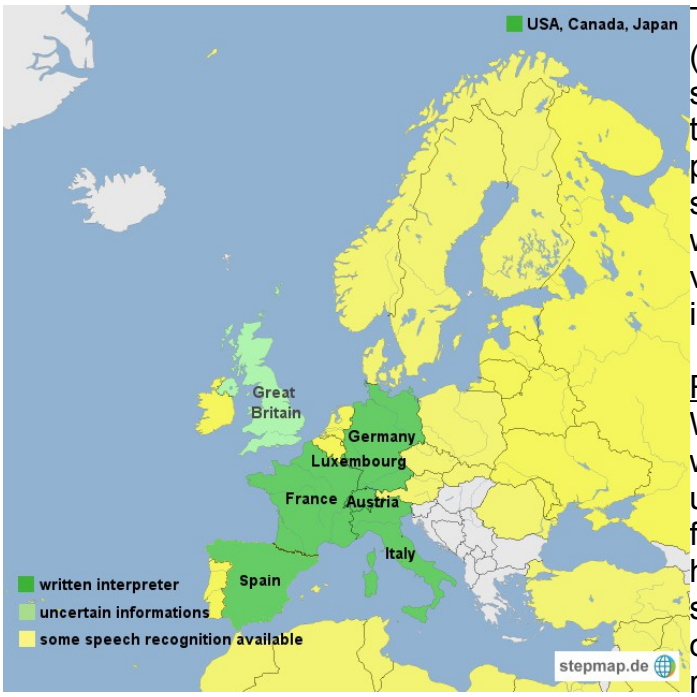
Keyboards are available for all languages which gives countries all over the world the possibility to start written interpreting. Map 2 shows in which countries written interpreters with keyboard work. Different layouts of keyboards are used, depending on the language it could be QWERTY, Dvorak, JIZ etc. For the used software please see table 2. This technique includes using shortcuts, abbreviations and vocabularies. In some countries automatic word extension is used, too. The training of written interpreters with keyboard takes 3 months to 4 years, except for shorter beginner's trainings like in the extreme case of Switzerland with only 1,5 days. A speed of 350-550 characters per minute is needed to get certificated, whereas the maximum speed is about 928 characters per minute (world record). Participants answered that the reason to use this technique is, that it is easily available and cheap. Other reasons named by participants were that stenography or velotype could not be successfully implemented in that country.

Veyboard and velotype

To adapt veyboard and velotype to different languages the combinations of letters in this language must be implemented. That has already be done for many languages (see Map 3). Shortcuts and abbreviations as well as vocabularies are used with velotype and veyboard. Special is that the written interpreter can switch between different languages very easily using a shortcut. Written interpreters get trained between one and two years, certificate speed is 500 characters per minute. The maximum speed is about 900-1000 characters per minute. Software for using this kind of keyboard is free of charge and has to be installed on the laptop (Veyboard) or is runing on the keyboard itself (Velotype). Participants stated that the technique is used because it is available, used during written interpreter training, faster than keyboard, very reliable and it offers many possibilities through additional software.



Map 4: Written interpreting with stenography



Map 5: Written interpreting with respeaking

Stenography

Due to stenography being used at court, at parliaments etc. stenography is available for many lanuages. Because the writing is a phonetic writing, a software called CAT (Computer Aided Transcription) is needed to interact with this chord keyboard and the laptop. The training for written interpreters with stenography takes 2-5 years, but a short beginner's training of only 4 months was reported, too. High speed (130-200 words per minute for certificates up to 260 words as a possible max) and high accuracy are named advantages of this technique, also the software that allows for further adaptations to be made or to write in several text windows on the computer. The long training with high drop-out-rates (see also DeWitt / Tedley / Shastay) and high costs (about 10.000 Euro for hard- and software except for Plover) are said to be the main problems. Three participants answered that they use stenography because nothing else was taught. Please see map 4 to view the countries where written interpreters work with stenography.

Respeaking

Written interpreters with respeaking work with spoken abbreviations and usually use specialised vocabularies for different assignments. They use a headset when working remote and a special steno mask when working onsite. The mask allows them to respeak the heard without disturbing others and also reduces the influence of noise. The speech recognition software used depends on the language. For some languages (English, Italian, Spanish, French and German) the software of the market leader Nuance is available. Interestingly, especially countries with these languages (USA, France, Italy, Germany, Switzerland, Spain, (United Kingdom)) use respeaking. Additional software such as CAT-software, Velonote and Gobby is used to optimise the results.

Written interpreters with respeaking are usually trained nine to twelve month, although a short beginner's training of only 10 hours was reported, too. While other techniques train on the skill of typing (in different kinds) here written interpreters are trained on accurate pronounciation and improvement of the involved statistic

database of the recognition software. Certificate speed is 120–200 words per minute, depending on the country. The reported maximum speed ranges from 220–260 words per minute. Participants quote that respeaking is used in their country because it is fast and allows verbatim work and because the training period is shorter and mostly more successful than with stenography. One participant mentioned, that the software and hardware could be much cheaper than with stenography, others mentioned relatively high costs when a CAT-software is included.

What are the differences? Speed and costs (of the systems) are the main differences. But at the moment the techniques cannot be compared very well in their speed, because in some countries the speed is measured in words per minute (which varies because word length is different in languages), in other countries it is in characters per minute. Additionally, in some languages the average speaking rate is higher than in others so that even the characters per minute can not show how fast the writing can be done compared to the spoken language. The certificate-speed was named by some participants as being clearly slower than that done from an experienced written interpreter and needed during a real-time job. Anyhow the named maximum speed does not indicate for how long written interpreters can write at that speed. The question if a technique enables the written interpreter to write word-by-word can not be taken into account to answer the question of speed, for „word-by-word is possible“ was answered by 38 participants and by the majority concerning the individual techniques. Only seven participant answering for keyboard and one answering for veyboard/velotype reported, that they do not work word-by-word[4]. At the same issue three participants for keyboard answered very strictly that written interpreters with keyboard are not only working word-by-word but are also not making any decisions, because they are writing every single word. One of those agreed to have an additional interview. She explained, that she only does word-by-word, bacause she only accepts assignments were the speakers agree to speak slow enough so that she can catch every single word. So the expression „word-by-word“ may mean nothing concerning speed.

What are the similarities? All techniques consist of a hardware part to insert the text and a software part to deal with shortcuts, abbreviations and (sometimes) different vocabularies. To reach a specific speed and learn other things concerning written interpreting (like ethics, socialisation and communication of deaf, deafened and hard of hearing people, linguistics etc.) to become a professional written interpreter a training is needed. This training takes more than at least 3 months, more often between 1 and 4 years. Shorter trainings are beginner's trainings that need longer periods of autodidactic training afterwards and are only reported for countries that just start to train written interpreters.

4 Participants had the oppertunity to answer for several systems, so that some answered for several systems and others did not answer this questions at all. Therefore, the number of answers does not equal the number of the 46 participants.

	keyboard	veyboard/velotype	stenography	respeaking
hardware	Traditional, Dvorak or JIS keyboard	Veyboard, Velotype	Gemini,Revolution, Infinity writers, Tréal, Palantype, Stylus, Stentura, élan Mira, Fusion, élan Cybra, Diamante, Stenovations, Korean Steno, speed warpro, Sokutaipu, Plover keys for traditional keyboard	headset, Steno Mini Mask, Sylencer Smart Mic
software	MS Word, Open Office, Libre Office, KITU, TypeWell, C-Print, ZAV, ATOK	Veyboard software, Velotrainer, Veyboard Booster, Velotype Academy, VeloNote, TolkCorrect	Eclipse CAT, total Eclipse, CaseCATalyst, Winner, Plover, Hayatokun, training program for Speed warpro, procat steno	Dragon Naturally Speaking, Total Eclipse V, CATalyst VP, Gobby
mode of work	typing, shortcuts and abbreviations, automatic word extension, vocabularies	chord syllabic letter writing, shortcuts, vocabularies	chord syllabic phonetic writing, shortcuts	written interpreter speaks into microphone, abbreviations and shortcuts, vocabularies
speed for certiciate	350-550 characters/min.	500 characters/min.	(130)180-200 words per minute	(120) 200 words per minute
maximum speed	928 characters/min.	900-1000 characters/min.	260 words per minute	220-260 words per minute
training period	(1.5 days) 3 month to 4 years	1-2 years	(4 month) 2-5 years	(10 hours) 9-12 month
costs for hard- and software	costs for a keyboard	1750 € (Veyboard), 1500 € (Velotype)	(15 € for Plover) 5,000-13,000 US $	310 – 1470 € (additional 5000 – 5600 US $ if CAT-software is used)

Table 2: Overview of the answers of participants concerning the different techniques. Answers with great differences to all other participants are written in brackets.

9 How established and accepted is written interpreting in the individual countries?

The results show a great variety in the amount of written interpreters in the different countries. Japan on top with its 1500 written interpreters and Luxembourg at the other end with only one, and even more that have got no written interpreters at all, figure 1 gives an overview of the results. However, the question of numbers was not so easy as expected. For some countries the reported numbers of written interpreters are very different e.g. in the USA the reports go from about 280-300 registered written interpreters up to 500-1000. For figure 1 it was decided to name “500” as it is somehow in the middle. Because the question only was “How many STTRs do you have in your country?” different implications were included in the answers of participants: Some counted only trained written interpreters, others trained and untrained written interpreters, some participants only counted full-time written

interpreters, others all people that work as written interpreters at all. In figure 1 trained written interpreters no matter if working full-time or part-time are shown (as far as it was possible to evaluate if they are trained), independent of the duration and quality of training. Further surveys will need to evaluate this in more detail.

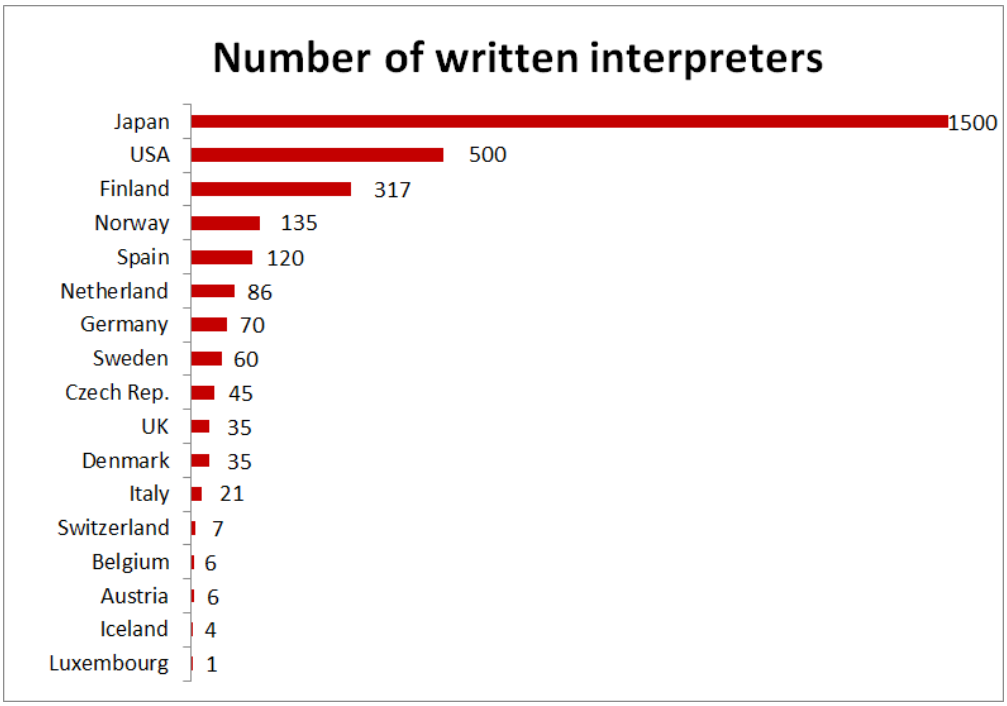


Figure 1: Number of trained written interpreters in different countries.

The amount of written interpreters should be viewed in correlation with the amount of people with moderate to severe hearing loss, the main user-group of written interpreting: Countries with lesser population like Iceland show a much better quotient than countries like the USA or the UK (see figure 2).

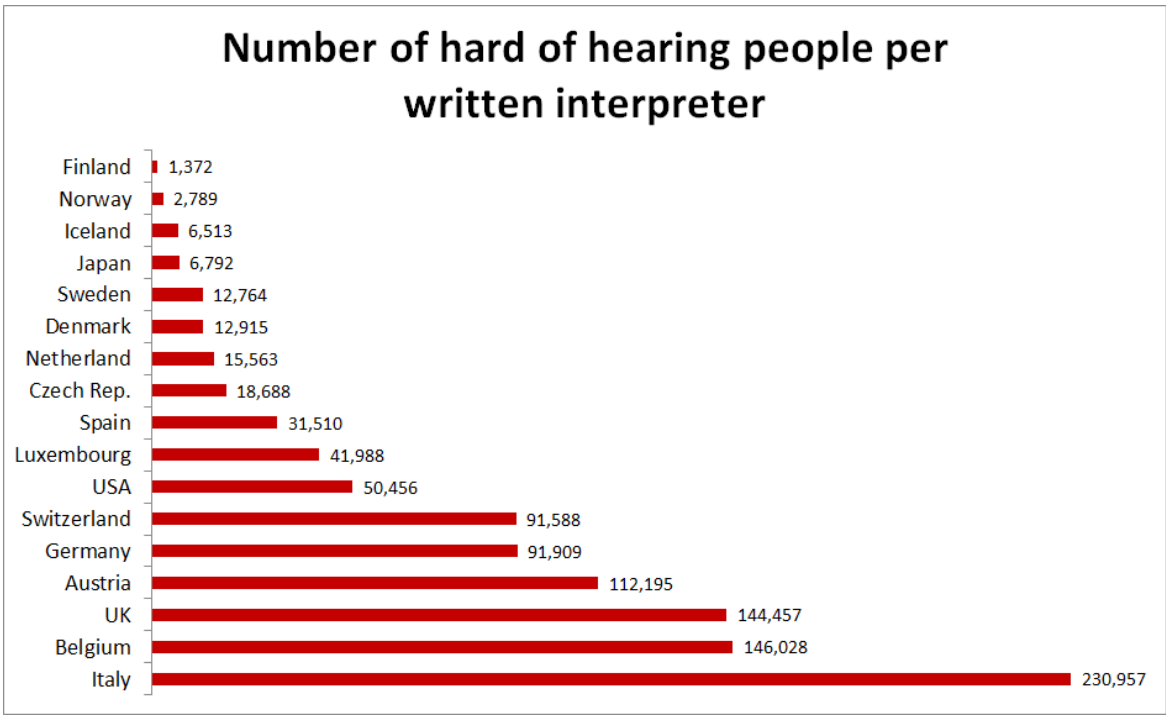


Figure 2: Amount of people with moderate to severe hearing losses per one written interpreter

Another aspect of establishment is the training of written interpreters: it varies in length, quality level and content. In some countries accepted exams or certificates do exist, so that high quality written interpreters can be identified by clients and by cost bearers. 15 countries have trainings for written interpreting, two have at least short base trainings for written interpreters, additionally in three countries no training takes place in that country itself, but written interpreters get trained in foreign countries. The duration of training varies from between some days up to 5 years. An overview of the training duration is given in figure 3. Detailed information about each country will be given in the appendix.

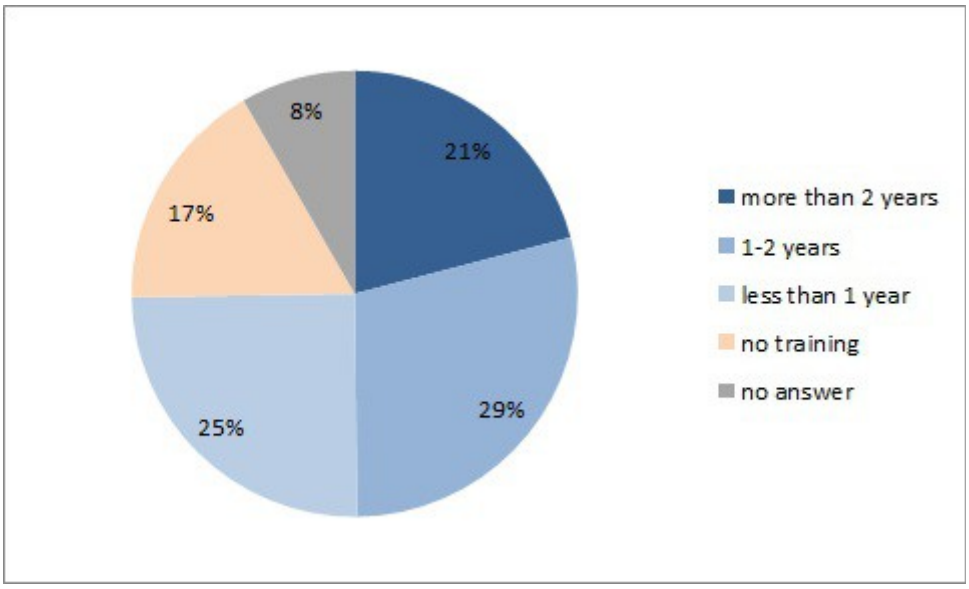


Figure 3: Training duration in participating countries

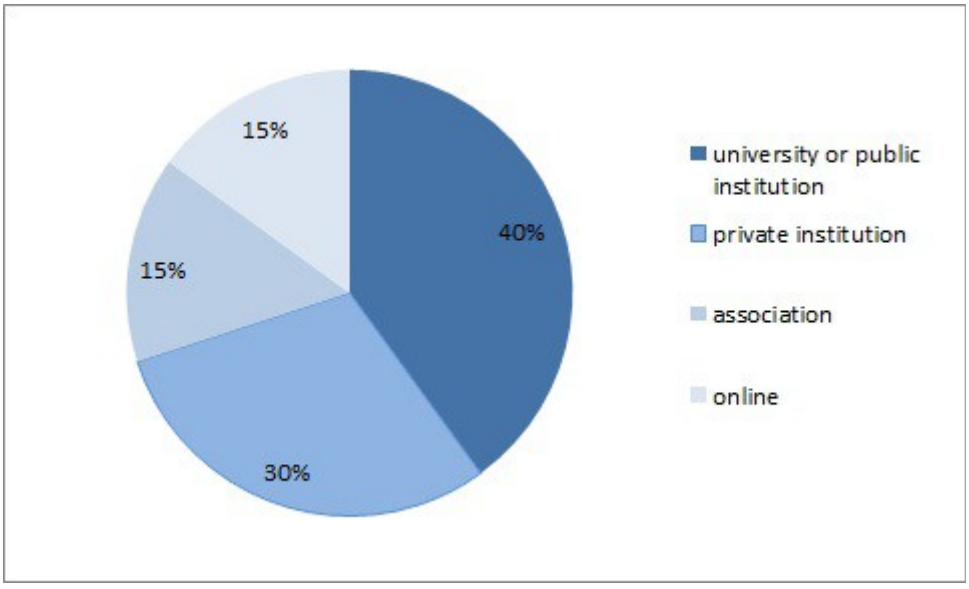


Figure 4: Place of training in participating countries

The level of training ranges from the academic level of a bachelor's degree (undergraduate studies) over some ECTS to trainings at private institutions or associations. In some countries online-trainings or trainings with manuscripts and training programs are the only possibility to get trained. The highest training levels are available in Norway, Denmark, the Netherlands and Belgium, where an academic training takes place that takes 2-3 years. In Finland and Sweden a shorter academic

training takes place (9-12 months), in the USA training is done in some Colleges and public institutions and in some private institutions also in cooperation with universities, which takes up to 4 years. The distribution of training places in the countries with training is shown in figure 4. In eleven countries written interpreters can get an exam or a certificate to prove that they are qualified for their work.

For 73 % of the surveyed countries laws and regulations for the use and payment of written interpreters do exist, sometimes these are special laws or regulations for written interpreters, more often these are for sign language interpreters but can be used for written interpreting, too. Sometimes more general laws for anti-discrimination do exist and help deaf, deafened and hard of hearing people to get the needed service. Anyhow, for most countries the written interpreter's service is not available in all situations or there is no cost bearer available for every situation. Participants also reported, that the laws and regulations for the use and payment of written interpreters do exist but that due to a lack of money the service is effectively limited or not paid for. Figure 5 gives an overview of situations where written interpreters are available.

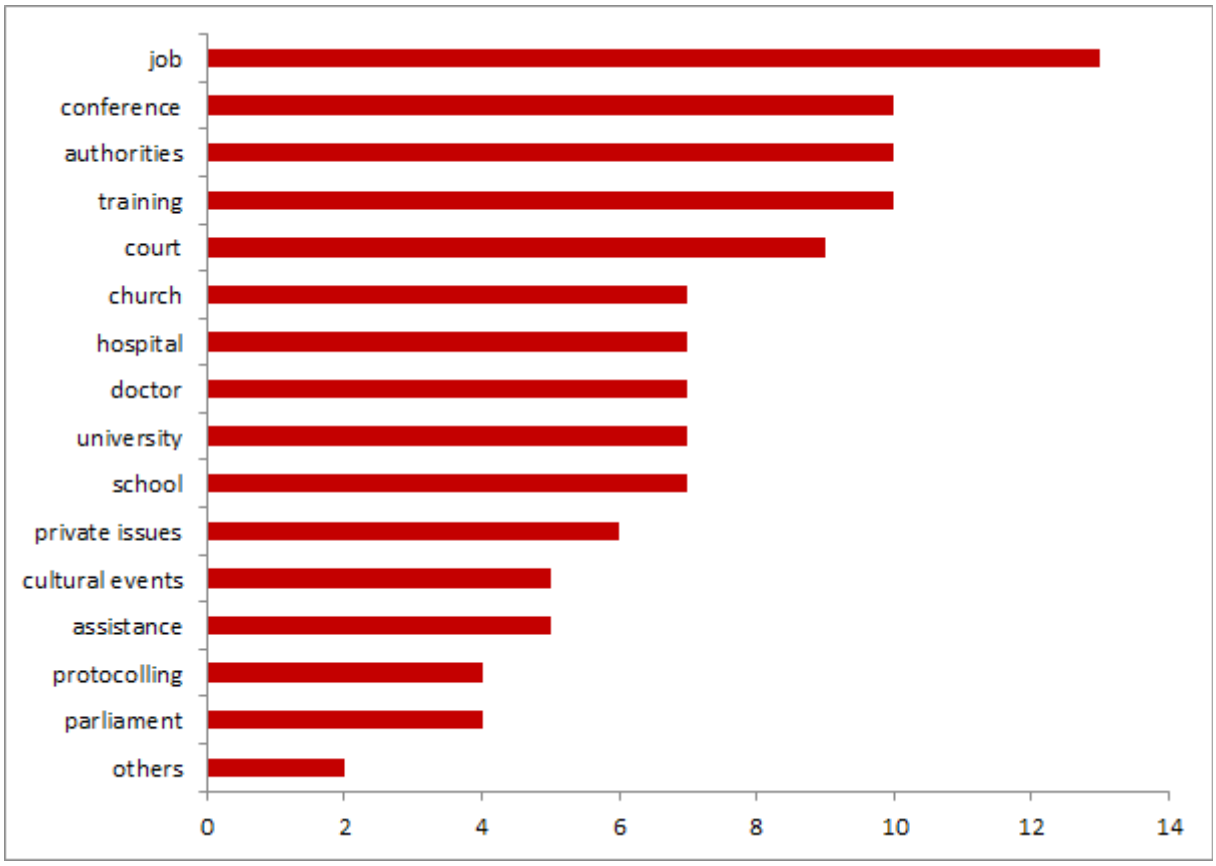


Figure 5: Situations were written interpreters are available over the participating countries, who answered these questions

In ten countries an association for (or at least with) written interpreters exist. They aim to improve quality, inform about written interpreting and negotiate with the authorities and cost bearers. From the submitted date it looks like to have an association is helpful in order to establish written interpreting in a country.

Cause the bulk of data make it difficult to get a clear view of the establishment of written interpreting in the different countries, a rating mechanism for more easy overview of the status quo in 2012 was developed for this paper. For this the number

of written interpreters, the occupational implementation and the legal implementation were evaluated (see chapter 5) and the countries were compared (see figure 6).

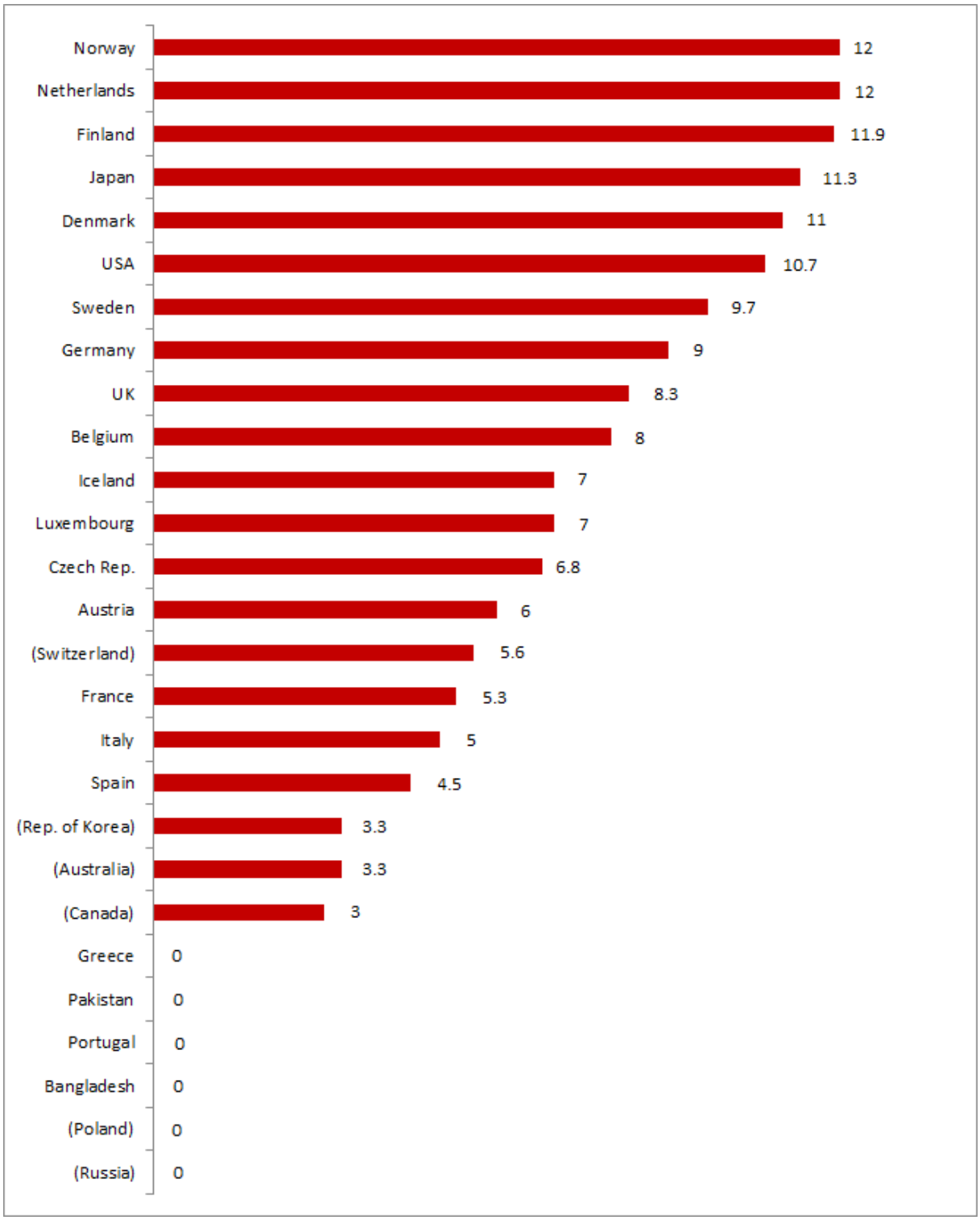


Figure 6: Establishment of written interpreting rated for the different countries. Brackets are used to indicate that some questions haven't been answered and therefore were rated with zero points. The maximum points that could be achieved are 13.

10 Discussion

For an international exchange, it would be necessary to know which expression is used in that country and what meaning the expression has got. This would be much easier if the used expression at least had a literal meaning that fits for that purpose.

This expression should therefore include all aspects of written interpreting literally. Other expressions linked to other jobs should be separated clearly so that further discussions and researches can deal with more accurate terms avoiding misunderstandings and misinterpretation.

A first assumption using the different aspects of written interpreting (see chapter 2) is done in the following. The aspects resulting from chapter two are:
a) writing fast,
b) simultaneously i.e. with a lack of time,
c) transfer from spoken into written language,
d) (mainly) for people with hearing loss,
e) making individual, strategic decisions for better understanding and readability,
f) providing access to information,
g) providing access to communication.

None of the currently used categories of expressions indicate only by name that it is a service for people with different kinds of hearing loss nor that it transfers from spoken into written language. The latter is normally indicated by added expressions such as “speech-to-text” or “written”. The other aspects of written interpreting help to distinguish between the categories (see figure 7): The expression of “user of a system” like stenographer only indicates that someone is using this system to write faster than others. If it is done for others or for oneself only is not included in this expression, either. “Note taker” indicates that it is also done for another person's benefit and therefore to give someone else access to information. However, it has – literally – nothing to do with writing fast, it is more about making decisions on what is important enough to write it down (see Makany, Kemp and Dror 2008).

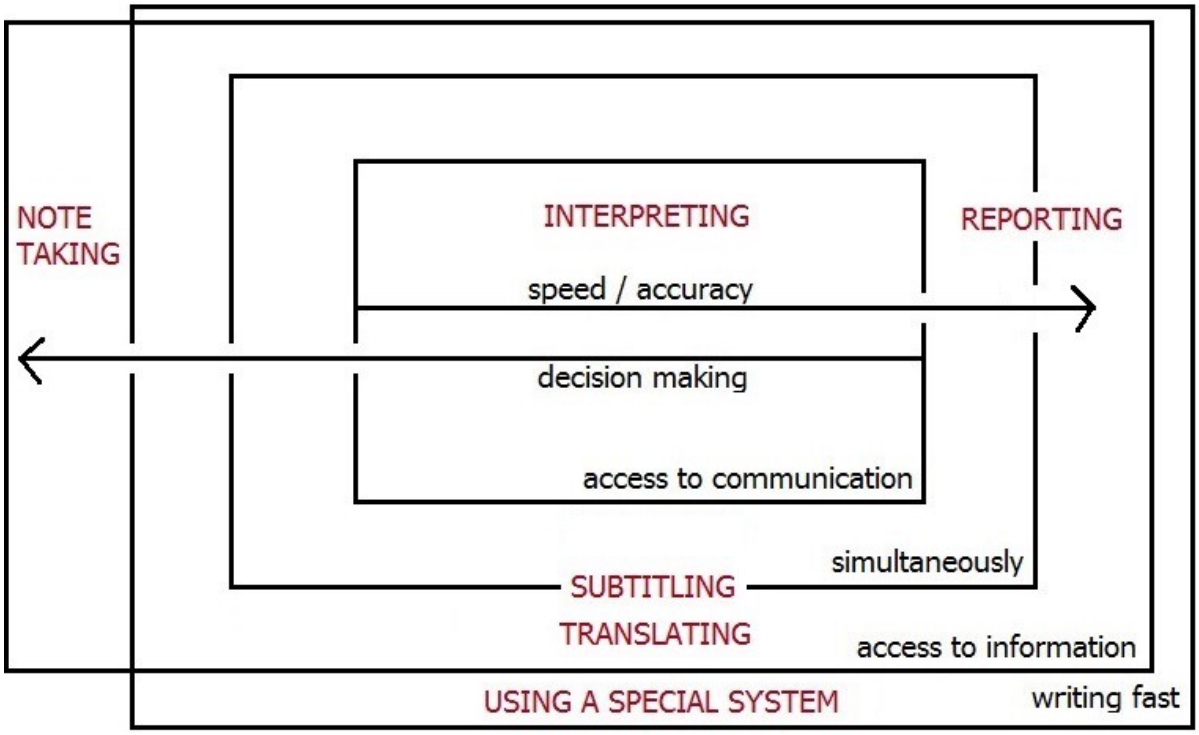


Figure 7: Catgories of written interpreting grouped at aspects of written interpreting by their literal meaning.

Reporters (like “court reporters”) do not make decisions but focus on speed to produce a very accurate report of the communication. They start working in the situation itself, writing down simultaneously, sometimes also audio recording the communication to be able to produce a word-by-word protocol afterwards. To produce a script or report they correct everything afterwards using audio records if possible. Working this way, they do not have to make decisions but to write down every word so that the user gets access to the information after (!) the assignment.

Accuracy and decision making are processes that a translator has to deal with. Translators do give access to information and make decisions on how to translate a content best. They are working from a source text to the resulting text and have to translate the content they can get, as written interpreters do. However, translators do not act simultaneously. They do have no lack of time (except that for deadlines), can do research and take time to carefully avoid mistakes in the resulting text.

Subtitlers work for television and films and can work non-simultaneously for pre-recorded subtitling or simultaneously for live subtitling. They give the user access to the information, have to write fast with a lack of time during live subtitling. They make decisions on what is the content that will be put into a subtitle, so that the result allows the user to understand the situation and this in a way that it is not too much so that it is still readable. Subtitles are done for foreign language users as well and therefore sounds are not always included in subtitles (EFHOH 2011). Subtitlers do not enable the user to take action in a communication, for it is only done on television or at films.

To give access to communication is the job of interpreters. The interpreter has to decide not only on how to prepare and transfer information (see e.g. Will 2009), but also on how to take actions to deal with the situation like asking for clarification or even mediating as Jiang has described for discourse interpreting (see Jiang 2008:145). Also all the other aspects of written interpreting are included. Interpreters work simultaneously, make decisions and give access to information as well as to communication. Additionally, Gerzymisch has already overcome the old translational definitions that include something like “from one language into another” by allowing also a change of mode (such as from spoken into written) as a process of interpreting (Gerzymisch-Arbogast 2008). Of course, interpreting is done normally from spoken language into spoken. Therefore, to indicate that the resulting text is written, an addition to the term “interpreter” is needed like “speech-to-text”, “print” or “written”. “Written interpreter” therefore could be an expression to include all aspects in a literal way.

A lot has been discussed about speed or accuracy (in the form of trying to get every word) and making decisions. It is an issue in naming the service as well as in the competition of the different techniques. Figure 7 shows that these are contrary poles: the higher the speed the lesser the amount of decision-making, the more decisions are made the lesser the speed. However, as long as both (speed and dicision-making) are included it is written interpreting. If written interpreting is ideally done faster or with concentration on meanings, is a discussion for further researches which should include situational aspects as well as the user's perspective.

Concerning the establishment of written interpreting, only an overview and a lot of assumptions could be done in this research. The current available information on the different laws and regulations is limited. A more detailed view like Wheatley and

Pabsch did for sign language legislation in the European Union would help users, interpreters and governments alike on handling assignments of written interpreters.

Also the training of written interpreters will need a closer evaluation: What can be learned from other countries? Which training concepts lead to the best results? And what can be done to verify that a written interpreter has still a good quality although his or her training and exam has been done 5 or 10 years ago?

Last but not least, the establishment rating did not show the actual changes and difficulties that the countries undergo. Countries with higher rating reported that the governments try to reduce payment, trainings are in danger to be shortened or nearly no people could be motivated anymore to become written interpreters. Countries with no written interpreters yet, often have trouble to raise attention for the needs of hard of hearing and late deafened people, whereas deaf people already have formed associations and have done political work for years. Therefore, a follow-up study would be of interest and may also include missing facts, corrections and maybe even information about new countries.

Appendix: Portraits of the individual countries

In the following section portraits of the individual countries are given to the reader. This is the content of the following pages:

* This country did not participate in the survey. The information was gained through internet research or informal information.

Austria

In 2011 training for written interpreters started as a project of the Österreichische Schwerhörigenbund (Austrian Association of hard of hearing people) in cooperation with the bfi, an educational institution in Vienna. 6 written interpreters in Austria were trained on interpreting with traditional keyboard. Contents of the training in Austria are: Speed training, ethics, hearing impairment, translation studies, business aspects, linguistics and practical training. The last month of training is reserved for preparations for the exams.

The certificate is valid for 1,5 years only and has to be extended afterwards.

The written interpreters use Word as software, where they add shortcuts and write. Transcripts are normally deleted after the job. Only if all participants agree before the assignment takes place, a corrected transcript is possible and must be paid for. An exception are students, who can get an uncorrected transcript, if there is a solution that both – cost bearer and written interpreter – accept.

Written interpreters in Austria mostly work in the fields of universities, jobs, further trainings, government institutions, court and cultural events, but only for job-related situations a payment regulation exists for whole Austria. Here the Bundessozialamt (national social assistance office) is the funding agency. In other situations the health insurance pays for the work or associations of hard of hearing people pay themselves. A payment regulation for health insurance could already be established for one federal state, for the others negotiations are still in progress. Travel costs, costs for accommodation and preparing time are additional costs that have to be paid.

Name of written interpreters:
Schriftdolmetscher/in
(engl. written interpreter)

Population: 8,414,638
(Statistik Austria 2011)

Number of written interpreters: 6

Number of hard of hearing people:
1,66 Mio (8 % of population)

Techniques: Keyboard

Laws and regulations:
- UNCRPD
- no laws do exist, but regulations concerning use and payment of written interpreters

Remote work: only testing

Remote platforms:
GESTU, Verbavoice

Training: at association, 9 months

Exams / Certificate: yes

Belgium

Belgium is divided into two parts: Flemish-speaking and French-speaking. The following information holds for the Flemish part only. No information about the French part could be gained. The answering written interpreters were all Dutch-speaking and reported that only Belgian hard of hearing people, deafened or deaf, who know Dutch, use written interpreters at the moment.

Written interpreters exist in Belgium since 2005/2006. They are freelancers or casuals, of whom 6 are trained to be written interpreters and about 70 are untrained with a bachelor's degree in another course of study e.g. business. Before 2012 there was a training for written interpreters at a public institution. Contents were speed training, ethics, linguistics, hearing impairment, sign language, translation studies, business aspects, ergonomics and writing for deafblind people. The written interpreters were trained on traditional keyboards, but additional veyboards were introduced to them.

The written interpreters use Word as software, where they add shortcuts with the function for auto-correction. Transcripts are normally deleted. Only if participants agree a transcript is possible. One participant of this study also wrote, that the transcript has to be anonymised.

Written interpreters in Belgium work in all parts of daily life. The government is the main cost bearer in Belgium, but hard of hearing persons have to pay the fuel of the written interpreters themselves. For written interpreting at courts, the courts pay themselves.

Special in Beglium is the additional training for deafblind persons. Therefore the outcome is readable not only on laptop, separated monitors or screens, but also on a braille display.

Name of written interpreters: Schrijftolk (dutch part)
(engl. written interpreter)

Population: 10,952,166
(Statistics Belgium 2011)

Number of written interpreters: 6 (trained), 70 (untrained)

Number of hard of hearing people: 215,757 (8 % of population)

Techniques: keyboard, veyboard (only testing)

Laws and regulations:

- UNCRPD
- laws and regulations for use and payment of sign language interpreters, counts for written interpreters, too

Remote work: no

Remote platforms: unknown

Training: 4 years

Exams / Certificate: no

Czech Republic

Since 2009 written interpreters are working in the Czech Republic. After two unsuccessful attempts to adapt and implement stenography in the Czech Republic, Jaroslav and Helena Zaviačičová invented their own system called ZAV-Schrift, with which Helena is now world record holder of fast typing with keyboard for the ninth time in a row, gaining a speed of up to 928 characters / minute.

To learn the ZAV-Schrift, which contains many shortcuts, written interpreters have to go through 2400 units, which normally takes about 2 years of time. Other topics are not covered during the training.

Written interpreters in the Czech Republic do assignments at schools, universities, at the authorities, at court and conferences. They also work as assistants for deaf, deafened or hard of hearing persons. Corrected or uncorrected transcripts are possible.

Although laws and regulations for the use of written interpreters exist, in many situations payment is a problem cause of a lack of money. Therefore, the organisers of events, grants and projects often fund the written interpreters.

Masarykova univerzita Brno is highly engaged in making the university accessible to people with disabilities. If a person with a disability registers at the university, the university has to make sure that all courses can be attended without limitations. For hard of hearing and deaf students a software was invented at the university. It allows students to sit separated from the written interpreter, take notes at the same display and also send their own comments, so that the written interpreter can voice them, if the hard of hearing or deaf do not like to speak for themselves.

Name of written interpreter: Přepisovatel (engl. transcriptionist, scribe, copyist)

Population: 10,512,208
(Český Statistický Úřad 2012)

Number of written interpreters: 40-50

Number of hard of hearing people: 207,090 (8 % of population)

Techniques: keyboard with ZAV-Schrift

Laws and regulations:
- UNCRPD
- laws and regulations for the use of STTRs do exist

Remote work: only testing

Remote platforms: e-scribe

Training: about 2 years

Exams / Certificate: no

Association for written interpreters: Česky těsnopisny and Interinfo Tschechien (de Preter/Maes 2012:55)

Denmark

The written interpreters in Denmark work with traditional keyboards. They are trained employees or freelancers and write into a special program, that immediately deletes transcripts after the assignment is done.

Written interpreters who work for the university Høreforeningen can use a special program for shortcuts to improve speed and quality (de Preter / Maes, p. 53). The training for written interpreters was done at the association of deaf / hard of hearing, a training at the university is being discussed. The idea is to include the written interpreter training into the training for sign language interpreters, so that sign language interpreters can also be written interpreters (de Preter / Maes, p. 53)

Hard of hearing, deaf or deafened persons can use “interpreters, when needed everywhere” the participant of the survey points out. In all fields cost coverage is given, although for private use there is a limit of 7 hours per year. Private use means e. g. visiting cultural events. Cost bearers for the use of written interpreters depend on the assignment and can be government, companies, courts, etc.

Name of written interpreter: skrivetolk (engl. writing interpreter)

Population: 5,650,631 (incl. Greenland and Faroe Islands) (CIA [1] 2012, CIA [2] 2012, CIA [3] 2012)

Number of written interpreters: 30-40

Number of hard of hearing people: 452,050
(8 % of population)

Techniques: keyboard

Laws and regulations:
- UNCRPD
- laws and regulations for use and payment of written interpreters do exist

Remote work: only testing

Remote platforms: MMXPro

Training: see text

Exams / Certificate: unknown

Association for written interpreters: Foreningen af Skrivetolke (FaST)

Finland

Since the 80s there have been written interpreters in Finland, but they are only seen as interpreters there. This perspective goes back to the university of Tampere, were Liisa Tiitula was very committed to prove that written interpreting is a field of scientific interest.

The written interpreters in Finland are organised in Suomen kirjoitustulkit ry, a written interpreter association. They are all trained and either freelancers or employees. The training in Finland takes place at university for the duration of 30-35 ECTS (European Credit Transfer System, 1 point can be understood as about 25-30 hours). At the end they do not get a special certificate, just a confirmation that they did “a course in written interpreting”.

In Finland, too, all transcripts are deleted immediately. Working meaning-by-meaning with traditional keyboard the written interpreters type 433-500 characters per minute using shortcuts and / or a special program called KITU, which benefits from the length of Finnish words. If a word with more than 6 letters is typed once during an assignment, the program remembers it and makes a suggestion, if the beginning of the word is typed again. Since there may be several words with the same beginning letters, several suggestions could be made, so that the written interpreter can select easily.

The government is responsible for the payment of written interpreters. Written interpreters can be deployed in all situations without limitations which is unique in Europe. Additional payment of travel costs, travel time, over night stay and parking fee as well as daily allowance and preparing time are included in the payment.

Name of written interpreter:
Kirjoitustulkki
(engl. written interpreter)

Population: 5,404,956
(Väestörekisterikeskus 2012)

Number of written interpreters: 315

Number of hard of hearing people:
432,396 (8 % of population)

Techniques: keyboard

Laws and regulations:
- UNCRPD, convention signed
- the laws for the use of sign language interpreter also counts for written interpreters

Remote work: no

Remote platforms: no

Training: 9 months

Exams / Certificate: no

France

Sometime before 1997 written interpreting started in France. First with veyboard / velotype from the Netherlands, but after a while the French developed their own kind of velotype which only works for French. Velotypists go through a 2-years-training-course at a private educational institute, which is subsidised with public money.

The training consists of speed training, ethics, several topics concerning hearing impairment and grammar, orthography etc. The written interpreters with velotype in France are also trained in summarisation. The aim is to write very good French rather than catching every single word.

After a successful training – which means at least 500 characters / minute with no more than 5 mistakes – the velotypist gets employed at an agency/company. There are no freelancers with this system.

In France there are also respeaker-written-interpreters working as well. However, no further information was available on this topic.

Interpreting is mainly done for meetings at work or senate or at government authorities. Most written interpreting therefore takes place at Paris, but remote written interpreting is well accepted, too.

Payments depend on duration of the appointment, intervals, if the written interpreter works alone or with a partner, if it is a regular client etc. There are no distinct prices. Travel costs, complete travel time, time for technical setup and parking fee have to be paid.

Name of written interpreter: sous-titrage en direct (direct subtitling), transcription en temps réel (transcription in realtime), velotypie (velotypist – fore someone using velotype)

Population: 64,700,000
(Institut National de la Statistique et des Études Économiques 2010)

Number of written interpreters:
unknown

Number of hard of hearing people:
12,745,900 (19.7 % of population)

Techniques: veyboard/velotype, respeaking

Laws and regulations:
- UNCRPD
- no laws include written interpreters, but general laws depending on anti-discrimination or rights of persons with disabilities exist, that include needs of hard of hearing people.

Remote work: yes

Remote platforms:
NTR meetings, Orange, tadeo, streamtext, Verbavoice

Training: 2 years

Exams / Certificate: yes

Germany

Written interpreting in Germany started with handwriting at overhead-projectors mostly done at meetings of hard of hearing associations. In the 90s written interpreters with keyboard started to work. In 2000 Heidrun Seyring brought the stenosystem from the USA to Germany and adapted if for the German language. 6 years later, respeaking was developed by Birgit Nofftz for written interpreting in Germany, too.

The training for written interpreting is done by private educational organisations (for stenograpyh, respeaking and keyboard) and by the German association for hard of hearing (only for keyboard). The training ends with exams and with an accepted certificate.
Although three systems do exist, none of these is viewed as better or worse than another having different pros and cons and individual clients, who prefer different systems (see Bundesverband der Schriftdolmetscher Deutschlands).

Respeakers in Germany do not use a CAT software but a free software called Gobby to connect each other's computers for corrections etc. It is also used to combine different systems of written interpreting, so that they can co-work for one client.

Written interpreters work in all kind of situations. For private issues the client has to pay himself. In other contexts like university, school, work, hospital, court etc. cost coverage is done by government, health insurance or annuity insurance.

Name of written interpreter: Schriftdolmetscher/-in, Schriftmittler/-in (engl. writing interpreter)

Population: 80,421,000 (Statistik-Portal)

Number of written interpreters: 70

Number of hard of hearing people: 6,433,680 (8 % of population)

Techniques: keyboard, stenography, respeaking

Laws and regulations:
- laws and regulations for use and payment of written interpreters do exist
- laws and regulations for use and payment of sign language interpreters count for written interpreters, too
- UNCRPD

Remote work: yes

Remote platforms: Verbavoice, Komline, CapApp, Skype

Training:
- 2 years (stenography)
- 1 year (respeaking)
- 9 month (keyboard)

Exams / Certificate: yes

Association for written interpreters: Bundesverband der Schriftdolmetscher Deutschlands (BSD)

Greece

An association for deaf, deafened and hard of hearing people does exist, but is concentrating more on deaf culture and sign language.

Now first efforts are being made to inform people in Greece about the needs of deafened and hard of hearing people as well. The service of written interpreters is unknown in Greece.

Name of written interpreter:
Ταχυπληκτρολόγος (engl. fast writer)I

Population: 10,815,197
(ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΕΛΛΗΝΙΚΗ ΣΤΑΤΙΣΤΙΚΗ ΑΡΧΗ 2011)

Number of written interpreters: 0

Number of hard of hearing people: 865,215 (8 % of population)

Techniques: no

Laws and regulations: no

Remote work: no

Remote platforms: no

Training: no

Exams / Certificate: no

Iceland

The four written interpreters in Iceland work with a traditional keyboard. Three of them work only for university, the fourth works in all kinds of situations. For many years there has only been one written interpreter, who later on instructed and trained the other three using her experience (see Kruijk et al). However, no training programs do exist in Iceland yet.

The legal implementation of written interpreting in Iceland only contains the UN Convention on the Rights of People with Disabilities, but the government pays for written interpreting at schools and universities, at the doctor's, in hospitals and at court. A transcript is handed out to participants if all participants agree to it.

Name of written interpreter: Rittúlkurr (engl. written interpreter)

Population: 325,671 (Wikipedia 2014)

Number of written interpreters: 4

Number of hard of hearing people: 26,053 (8 % of population)

Techniques: keyboard

Laws and regulations:

- UNCRPD, but no further laws or regulations

Remote work: no

Remote platforms: no

Training: see text

Exams / Certificate: no

Ireland

No participant from Ireland took part in the investigation, but as stenographs from the United Kingdom report that they were trained in Ireland it is worth taking a look.

At the Bray Institute of Further Education (BIFE) stenographers can do a 2 years full time training course, resulting in a certificate from the National Court Reports Association (NCRA) from USA. This makes the NCRA certificate the only one that could be gained in an European country and is accepted abroad. This gives the owner the possibility to be recognised as a qualified written interpreter in different countries.

Name of written interpreter: unknown

Population: 4,581,269 (Wikipedia)

Number of written interpreters: unknown

Number of hard of hearing people: 366,501 (8 % of population)

Techniques: stenography

Laws and regulations: unknown

Remote work: unknown

Remote platforms: unknown

Training: 2 years at Bray Institute of Further Education

Exams / Certificate: yes, NCRA exams:
Registered Professional Reporter (RPR), Registered Merit Reporter (RMR), Registered Diplomate Reporter (RDR), Certified Realtime Reporter (CRR), Certified Broadcast Captioner (CBC), Certified CART Provider (CCP), Certified Legal Video Specialist (CLVS), Certified Reporting Instructor (CRI), Master Certified Reporting Instructor (MCRI), Certified Program Evaluator (CPE)

Italy

While Italy has got three main languages (Italian, German, Ladin) only for Italian and German written interpreters are reported. Since the 1990s written interpreters in the Italian part have used different sorts of shorthand machines (stenographers and velotypists) to work for deaf and hard of hearing people. Later on, respeakers started in that field, too. Since 2011 a German written interpreter has started her work in South Tirol working with a keyboard.

There is no training for written interpreters in Italy. The German written interpreter get trained in Austria, the written interpreters in the Italian part have the chance to start with a beginners training and then gain further knowledge through autodidactic learning – or they are completely self-taught.

The beginners training for respeakers can take place as a university course of some weeks, it's focus is on subtitling.

Written interpreters in Italy work in many different settings: at the job, at universities, at further trainings, for public authorities, at church services, conferences, cultural events. Although the government pays for written interpreters' services in some situations, no payment regulations do exist for the use of written interpreters' services during the job, whereas in other countries this is one of the first situations covered.
Concerning transcripts: In the Italian part corrected and uncorrected transcripts are possible, in the German part transcripts are deleted immediately.

Name of written interpreter:
Sottotitolazione (in tempo reale) (subtitling (in realtime))
Schriftdolmetscher (German part) (writing interpreter)

Population: 60,626,442 (ISTAT)

Number of written interpreters: 21

Number of hard of hearing people: 4,850,115 (8 % of population)

Techniques: stenography, respeaking, keyboard (south Tirol)

Laws and regulations:
- UNCRPD
- some laws and regulations for the use of sign language interpreters counts for written interpreters, too
- no laws do exist (south Tirol)

Remote work: only respeaking and stenography

Remote platforms: Teletype

Training: no training (only beginners' courses for subtitling)

Exams / Certificate: no

Luxembourg

Since 2011 one written interpreter has been working in Luxembourg. Using the respeaking method the written interpreter was trained in Germany since there is no training available in Luxembourg and most of the hard of hearing and deafened people speak German. The reason for this is that the only special school for deaf and hard of hearing people holds lessons in German.

However, working in a country with three official languages (Letzebourgian, French, German) the written interpreter often co-works with foreign language interpreters who translate into German first. For jobs longer than 1 h, a co-interpreter from Germany works together with the Luxembourgian written interpreter.

The written interpreter is employed by an organisation which is funded by the government. Through an agreement with the government hard of hearing people can get access to communication via written interpreter. Conferences and project groups are the main working field in Luxembourg.

Name of written interpreter: Schrëftdolmetscher (engl. written interpreter), Schriftdolmetscher (engl. written interpreter), Interprète consécutif par reconnaissance vocale (engl. written interpreter with speachrecognition)

Population: 524,853 (Grand-Duché de Luxembourg)

Number of STTRs: 1

Number of hard of hearing people: 41,988 (8 % of population)

Techniques: respeaking

Laws and regulations:

- UNCRPD
- some general laws do exist, but they do not mention hard of hearing people
- an agreement with the government regulates the use and payment of written interpreters

Remote work: no

Remote platforms: no

Training: no and not planned

Exams / Certificate: German certificates accepted

The Netherlands

In 1984 the first self-taught written interpreters started to work in the Netherlands. In 2000 the first training courses took place, in 2002 the first students were accepted. The 2-years-training consists of speed training, ethics, linguistics, hearing impairment, basics on sign language, translation studies, business aspects and ergonomics. It takes place at the university, at Hogeschool van Utrecht (HBO). In the beginning it was only 1 year and it belonged to the sign language interpreter's education, but now it is a training of its own with an Associate Degree Schijftolk or HBO opleiding.

Working with veyboard or velotype, the written interpreters in the Netherlands may work in all kind of situations. Cost coverage is provided by the government for situations at work (up to 15 % of hours of the working contract) and in education (up to 100 % of contact hours at school, till the age of 30). For personal issues, there is a max of 30 hours per year. Payment will be done by the social security system.

Transcripts are possible in general but are sometimes not allowed. In all other situations, it depends on the written interpreter, who is free to decide whether it is handed out or not. The answers to this question therefore were quite mixed: some only hand it out if all participants agree, some only hand out corrected transcripts, others do uncorrected, too.

Name of written interpreter: Schrijftolk

Population: 16,730,632 (CIA [4])

Number of written interpreters: 86 (StichtingRTG)

Number of hard of hearing people: 1,338,450 (8 % of population)

Techniques:
(pen and paper), veyboard, velotype

Laws and regulations:

- There are laws / regulations for the use and payment of sign language interpreters, which count for written interpreters, too.

Remote work: only testing

Remote platforms:
Orange, Streamtext, Skype, Verbavoice, Google Hangouts

Training: yes, at University (HBO) Hogeschool van Utrecht for 2 years

Exams / Certificate: yes
Associate Degree Schrijftolk / HBO opleiding

Association for written interpreters:
Nederlandse Schriftolken Vereniging (NSV) or tolknet

Norway

Written interpreters have worked in Norway since the 90s. The system in use is keyboard with shortcuts. Most written interpreters in Norway are sign language interpreters, too, because written interpreting is only a small part of the sign language-education. Most people choosing this education become sign language interpreters. Only few decide to focus on written interpreting. The training, which take place at university, takes three years. Also part of the training is interpreting for the deafblind. Besides these well-educated written interpreters there are also self-taught written interpreters in Norway.

The state provides an interpreter-service for written interpreters that also provides a platform for remote interpreting. At the job, at universities, at the doctor's, at conferences and all other situations written interpreters are available and get paid by the government. The only exception of that rule is written interpreting at court where the court has to pay the interpreter's fee.

Name of written interpreter: skrivetolk (writing interpreter) - hurtigskriver (fast typists)

Population: 4,707,270 (CIA [5])

Number of written interpreters: 135

Number of hard of hearing people: 376,581 (8 % of population)

Techniques: keyboard

Laws and regulations:

- laws and regulations for written interpreter use and payment do exist

Remote work: yes

Remote platforms:
provided by the interpreter-service

Training: yes, as part of the 3-years-sign language-education

Exams / Certificate: (yes)

Poland

Poland is establishing written-interpreter-services at the moment. There are some electronic note takers with keyboard already, but they are not very well accepted by the hard of hearing people in Poland.

Ideas to start a training at the polish university with velotype are being discussed. Another idea is to start a regular training for written interpreting with keyboard.

Name of STTR: unknown

Population: 38,415,284 (CIA[6])

Number of STTRs: unknown

Number of hard of hearing people: 3,073,222 (8 % of population)

Techniques: Laws and regulations: Only sign language interpreting is regulated by law, no provision for any other support.

Remote work: no

Remote platforms: no

Training: not yet

Exams / Certificate: no

Portugal

Little information could be gained about the situation in Portugal. No written interpreters were reported for Portugal. Although stenographers do exist and were trained regularly, they seem not to appear in that working field or were not reported.

However, they worked in the context of subtitling, being called “Sibtitulado Cerrado” analogue to the US-american closed-captioning. Due to problems with cost coverage lots of them were fired. Now it is being tried to cover live-subtitling via an automatic speech recognition engine (i. e. without respeaking), which is reported to be not readable because of the mass of mistakes.

Name of written interpreter: unknown

Population: 10,602,000
(Instituto Nacional de Estadística 2011)

Number of written interpreters:
unknown

Number of hard of hearing people:
848,160 (8 % of population)

Techniques: stenography

Laws and regulations: unknown

Remote work: unknown

Remote platforms: unknown

Training: unknown

Exams / Certificate: unknown

Spain

Since 2000 there are written interpreters in Spain. They are called subtitlers or transcriptionist and use stenography (20 written interpreters) or respeaking (100 written interpreters). Note taker were reported, too, using keyboard, pen and paper or writing at overhead-projectors.

The training for written interpreters in Spain consists of speed training, ethics, linguistics, hearing impairment and sign language. For respeakers it takes 6 months, for stenographers it takes 2 years to become a written interpreter. The trainings take place at the association for the deaf / hard of hearing people and at private institutions. There is also a cost free special training program for blind people to become written interpreters. This is done at ONCE Foundation.

Although there are some regulations for the use of written interpreters in Spain, there are no regulations or laws concerning the payment. Written interpreters in Spain work at (further) trainings, at parliaments, at cultural events and at conferences and offer uncorrected or corrected transcripts as well. They are paid by the government, companies or the deaf, deafened and hard of hearing people themselves.

Name of written interpreter: subtitulado en directo/subtitulado en tiempo real (engl. subtitler); transcriptor de habla a texto en tiempo real (engl. transcriptionist)

Population: 47,265,321
(Instituto Nacional de Estadística 2012)

Number of written interpreters: 120

Number of hard of hearing people: 3,781,225 (8 % of population)

Techniques: stenography, respeaking, keyboard, pen and paper, writing at overhead-projector

Laws and regulations: some laws / regulations for the use of written interpreters do exist, but not for the payment

Remote work: yes

Remote platforms: streamtext

Training:
- at association, at private instutions or at ONCE Foundation (for blind people)
- 2 years for stenography
- 6 months for respeaking

Exams / Certificate: no

Sweden

Since 1980 written interpreter have worked in Sweden. They are called “skrivtolk”, which can be translated as “written interpreter”. Although written interpreters work with velotype, veyboard or keyboard using shortcuts, working with pen and paper or at the overhead-projector is practised, too. Anyhow, all transcripts are deleted afterwards due to privacy protection.

Written interpreters in Sweden are trained for one year at a university or a public institution. The training consists of speed training, hearing impairment, sign language, legislation, business studies, linguistics and subtitling. Afterwards they are employed or become freelancers. They have an organisation for written interpreters called SvuF, the Sveriges vuxendövtolkars förening, which is open to sign language interpreters, too.

The government, local politics and companies pay for the written interpreting service at school, at the job, at universities, at trainings, at court and for subtitling. For assignments at doctors, at hospitals, at church services, at conferences, at proceedings, for associations or for private issues no cost coverage was reported.

Name of written interpreter:
Skrivtolk (engl. written interpreter)

Population: 9,573,466
(Statistics Sweden 2013)

Number of written interpreters: 60

Number of hard of hearing people:
765,877 (8 % of population)

Techniques: pen and paper, overhead-projector, velotype, veyboard

Laws and regulations:

- for the use and payment of written interpreter
- UNCRPD

Remote work: only testing

Remote platforms: unknown

Training: 1 year at university or public institution

Exams / Certificate: unknown

Association of written interpreter:
Sveriges vuxendövtolkars förening (SvuF)

Switzerland

In Switzerland written interpreting started in 2000, but there were several interruptions and it really started in earnest in 2008. Written interpreters with keyboard are called “Schriftdolmetscher” (written interpreter), written interpreters with respeaking are called “Untertitler”(subtitler) or “Respeaker”, because they get trained at television stations and mainly work in the field of live-subtitling, but some of them also work as written interpreter.

The training for written interpreters takes 1,5 days only. Participants in the training are experienced writers and subtitlers. In this short time they gain elementary knowledge about hearing impairment, technique and ethic. A complete training at Zurich University of Applied Sciences is planned but not available yet.

Assignments at the job, at further trainings, at conferences and proceedings are the main working fields. The usage of written interpreters in Switzerland was very low. For 2012 only 100 jobs per year were reported. However, laws and regulations for sign language interpreters can be used for written interpreters, too, and the disability insurance pays the fees.

Name of written interpreter: Schriftdolmetscher (engl. written interpreter), Untertitler (engl. subtitler), Respeaker

Population: 8,014,000 (Auswärtiges Amt 2014)

Number of written interpreters: 7-8

Number of hard of hearing people: 641,120 (8 % of population)

Techniques: keyboard, respeaking

Laws and regulations:

- laws and regulations for sign language interpreters are used for written interpreters, too

Remote work: yes

Remote platforms: Skype, Verbavoice

Training: 1,5 days of training for subtitlers and writers only. A complete training at university is planned but not available yet.

Exams / Certificate: no

United Kingdom

Since the 1990s written interpreters have worked in the United Kingdom. The used techniques are stenography and palantype. Keyboard is used by so called electronic note takers, who are trained and certificated, too. Also, remote respeakers do exist, but as they are not trained they do not fulfill the quality standards and are not accepted by their colleagues.

Access to a good training for stenographers and palantypists is a bit difficult in the UK. The Limping Chicken reports 2014, that there is no training at all, whereas some participants report that online courses or distance learning is available and that some companies take trainees to qualify them. After the beginner training resulting in a speed of about 140 words per minute, written interpreters continue with a training on the job. They are “usually expected to have up to 3 or 4 years of experience in general reporting skills to build their speed, confidence and experience working in real time,” as a participant reports.

For the qualification the written interpreters National Occupational Standard (NOS) is in place, which consists of preparations for written interpreting assignments, delivering speech-to-text services, co-working with other written interpreters and development of the performance as written interpreter (see Skills CFA 2012). Also a deaf awareness training has to be done.
The National Register of Communication Professionals for Deaf and Deafblind People (NRCPD) registers the professionals if they also confirm a code of conduct for communication professionals.

Written interpreters can be a QRR (Qualified Realtime Reporter) certified by the British Institute of Verbatim Reporters (BIVR).

Written interpreters work in several fields. For assignments concerning the job of the hard of hearing or deafened person the department for work and pensions pays the written interpreters. Public authorities and courts have a duty to provide appropriate support, too, and book written interpreters when needed. For private issues no government funding does exist.

Name of written interpreter : speech to text reporter, verbatim reporters, electronic note takers, respeakers

Population: 63,200,000
(Office for National Statistics 2012)

Number of written interpreters:
30-35 NRCPD registered written interpreters

Number of hard of hearing people:
5,056,000 (8 % of population)

Techniques: palantype / stenograph, keyboard, respeaking

Laws and regulations:

- laws / regulations for the use and payment of sign language interpreters, which count for written interpreters, too.

- the equalities act is the main legislation to guard against disablitiy discrimination

Remote work: yes

Remote platforms: Eclipse, Legende, Case Catalyst through Skype, CapApp and other windows or specialist platforms.

Training: see text

Exams / Certificate: Yes, from BIVR.

Written interpreter association:
AVSTTR (Association of verbatim speech to text reporters) and BIVR (British Institute of Verbatim Reporters)

Australia

Written interpreters in Australia mainly use shorthand i.e. stenography for their work. Training can be done with online courses. It takes about 1 year full time to finish the training (see NCCR). Training contents are technique, shorthand system, language facilities, vocabulary building and speed building.

Written interpreters in Australia work at universities or at school, at the job, at further trainings, at court, at parliament, at conferences and proceedings.

Unfortunately the Shorthand Reporters Association of Australia (SRAA) stopped their work in 2013 (see NCRA [1] 2013).

Name of written interpreter: captioner, CART provider, shorthand reporters

Population: 22,683,600 (Australian Bureau of Statistics 2012)

Number of STTRs: unknown

Number of hard of hearing people: 1,814,688 (8 % of population)

Techniques: stenography

Laws and regulations:
- Disability Discrimination Act

Remote work: yes

Remote platforms: UbiDuo and others

Training: 1 year fulltime or 50 weeks with 10 h/week of online-training

Exams / Certificate: unknown

Bangladesh

Deaf, deafened and hard of hearing people struggle to get support in Bangladesh. Some people do assist them by writing down with pen and paper, so that they can get some kind of access. While writing with keyboard will for sure become an option for Bangladesh, other techniques are not available because they are not developed for all languages, e.g. not for Bengali, which is spoken by the majority of people in Bangladesh. Regional dialects and many other languages such as the Chakma language and Rangpuri language make it even more complicated. However, the literacy rate concerning Bengali for all adults (hearing and hearing impaired) in Bangladesh is 57.7 % (Unicef). That makes it even more difficult, to find people, who are able to assist in the way of note taking or written interpreting.

Name of written interpreting: none

Population: 142,319,000
(Bangladesh Bureau of Statistics 2011)

Number of written interpreters:
unknown

Number of hard of hearing people:
11,385,520 (8 % of population)

Techniques: pen and paper

Laws and regulations: no

Remote work: no

Remote platforms: no

Training: no

Exams / Certificate: no

Canada

Canada as a huge country with two main languages (French and English) has established various types of written interpreting - meaning not the systems but the mode of work. When working with captioning or respeaking the written interpreters can work on-site. This service is called CART, i.e. Communication Access Realtime Translation. It is done remotely, too, called remote-CART. There are note takers, too, working with keyboard – also onsite or remote. Note takers can be preferred in special situations such as maths classes (see neesonsreporting). They select the essence of what has been said. More meaning/content than note takers but less than CART-providers can be provided by CARSH (see cap-comm). And: services are available for people with learning disabilities, and even inter-language services are possible, having a speaker in one language and the resulting text in another language.

Also some experiments with automatic speech recognition (meaning without respeaking), are taking place, too.

The written interpreters are trained on speed, ethics, linguistics, hearing impairment and business aspects. Court reporters can get a certificate afterwards, but it requires only 160 words per minute. This seems not very useful, because the speed-requirements are reported to be at least 200-225 words per minute.

The Accessibility for Ontarians with Disability Act (2005) sets a base for the work of the written interpreters, although no concrete laws for the use and payment of written interpreters do exist. Written interpreters work at school, at the job, at universities, at (further) trainings, at court and conferences or as assistance for deaf, deafened or hard of hearing people. No cost coverage was reported.

Name of written interpreter: Provider of Communication Access Realtime Translation (CART-provider), captioner, note taker

Population: 34,300,083 (CIA [7])

Number of written interpreters: unknown

Number of hard of hearing people: 2,744,006 (8 % of population)

Techniques: respeaking, stenography, keyboard.

Laws and regulations:

- no special laws
- UNCRPD
- Accessibility for Ontarians with Disabilities Act (2005)

Remote work: yes

Remote platforms: Neeson's text straming browser, WebEx, AdobeConnect, LiveDeposition, vSphere

Training: yes

Exams / Certificate: available (see text)

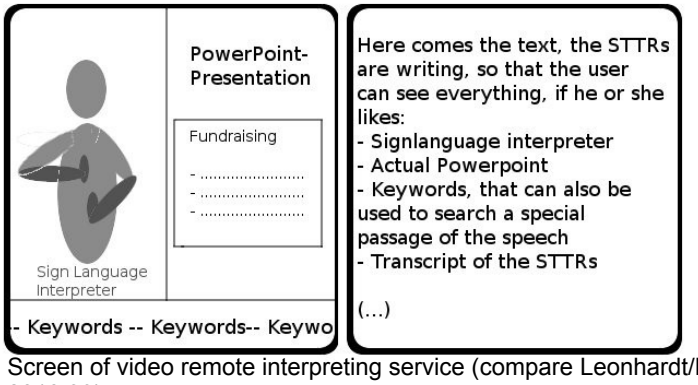
Japan

In Japan, there are volunteer note takers for the deaf, deafened and hard of hearing people. The writing can be done with pen and paper or at an overhead-projector, but also writing with computer and keyboard is done. They use keyboard and a special program to produce Kanji, the Japanese characters. They are either self-taught or get a short training at the beginning of their work.

Shorthand writers or stenographers in Japan use Speed Warpro or Hayatokun by Sokutaipu. They are trained for 2 years, but most of them work at court or for TV subtitling industries. The training consists of speed training and information about hearing impairment, but it is not defined what exact training is needed.

Several working modes are reported: 1) one written interpreter inputs the text, 2) two written interpreters working with a relay system or 3) up to 6 written interpreters are co-working using LAN. In the last case one note taker writes the first part of a sentence, the second the next part, and so on. The result is a verbatim live-script (see Leonhardt/Honka, 2010, p.33), or 6 stenographers work in teams of two (one captioner, one corrector). The work of written interpreters is seen as an interpreting-service and transcripts are usually not given to clients, but individual exceptions are possible. For public purposes government and local politics divide the costs, for private use promoters and sponsors shall offer interpreters if requested.

Leonhardt and Honka (2010) describe the project of a “video remote interpreting service” at Tsukuba University of Technology (NTUT), a university for students with a hearing or visual impairment: sign language, transparencies and keywords as well as speech-to-text are shown simultaneously as this figure shows.



Screen of video remote interpreting service (compare Leonhardt/Honka 2010:39)

Name of written interpreter: Yoyaku Hikki (volunteer note taker for deaf / hard of hearing), Sokkisha, Sokkikan, Sokkishi (shorthand reporter)

Population: 127,368,088 (CIA [8])

Number of STTRs: 1000-2000 note takers for deaf / hard of hearing

Number of hard of hearing people: 10,189,447 (8 % of population)

Techniques: pen and paper, overhead-projector, stenography, keyboard

Laws and regulations:
- regulations for the payment of volunteers
- and laws / regulations for the use of sign language interpreters, which count for STTRs, too.
- UNCRPD

Remote work: yes, but only testing

Remote platforms: unknown

Training: 2 years of training for stenographers at private educational institution, more training on the job is needed afterwards

Exams / Certificate: Sokki Gino Kentei Shikan

Written interpreter association: Zenkoku Youyaku Hikki Mondai Kenkyukai (national organisation for note takers) and Japan Shorthand Association Inc. (JSA)

Republic of Korea

For Korea stenography was reported as the only method of speech-to-text-services. Written interpreters are trained for 1-2 years at a private institution. The reported content of the training is only to gain speed. They can do an exam issued by the government. Afterwards they become freelancers or are employed.

The main focus is on captioning at court, at parliament and subtitling. Service for deaf, deafened or hard of hearing people is only reported vaguely.

Name of written interpreter: Computer Sokki

Population: 50,000,000 (Park 2010)

Number of written interpreters: unknown

Number of hard of hearing people: 4,000,000 (8 % of population)

Techniques: computer assisted stenography

Laws and regulations:
- laws / regulations for the use of written interpreters

Remote work: only testing

Remote platforms: unknown

Training: 1-2 years of training at private educational institution

Exams / Certificate: Level certificate exams

Written interpreter association: Korea Association of Shorthands

Pakistan

In Pakistan written interpreting for deaf, deafened and hard of hearing people is done by pen and paper or with traditional keyboards. Written interpreters are self-taught.

For the use or payment of written interpreters no legal background does exist. The clients have to pay the service themselves.

However, there is a movement for hard of hearing, deafened and deaf people in Pakistan. Deafened in his teenage years, Muhammad Akram founded Danishkadah, with the aim to empower people with disabilities and deafness and to get an inclusive society. Danishkada is a member of the Asia-Pacific Federation of the Hard of Hearing and Deafened (APFHD) and therefore is networking with other countries and gains information about written interpreting in other asian-pacific countries. Muhammad Akram works to start a first written interpreter training in Pakistan. He has already tested several new techniques with low costs, such as plover stenography or respeaking.

Name of written interpreter: none

Population: 190,291,129 (CIA[9])

Number of written interpreters: 0

Number of hard of hearing people: 15,223,290 (8 % of population)

Techniques: pen and paper, traditional keyboard

Laws and regulations: there is no legal background, yet

Remote work: no

Remote platforms: no

Training: no and not planned

Exams / Certificate: no

Russia

In Russia a written interpreter service for deaf, deafened or hard of hearing people has not really started yet. Some people report pen and paper or hand stenography and sometimes also the use of keyboard. Names that are reported to help users find a note taker are стенограф (stenographer), набор текста (text production), скорость печати (speed typing), but there is no official name for written interpreters yet.

The main problem is, that there is no money to start projects for trainings etc. Although concepts have been discussed, no founding took place. Therefore — despite the fact that a stenoprogram has been developed for the Russian language already, and despite the work of an American professor who introduced C-Print in Moscow — no training course has been started yet.

No legal basis for written interpreting does exist.

Name of written interpreter: стенограф (stenographer), набор текста (text production), скорость печати (speed typing) (see text)

Population: 142,517,670 (CIA[10])

Number of written interpreters: unknown

Number of hard of hearing people: 11,401,413 (8 % of population)

Techniques: pen and paper, traditional keyboard

Laws and regulations: there is no legal background, yet.

Remote work: no

Remote platforms: no

Training: no

Exams / Certificate: no

USA

Since the late 1980s written interpreters have been working in the USA. A great variety of technologies, trainings and names for written interpreting do exist in this country with its many federal states. While the expression “CART-provider” is used by written interpreters with different techniques, “captioner” was only used for stenographers, but now is used by voice writers, too. However, voice writer and especially note takers starting to name themselves captioners, too, find themselves sailing against the wind.

For written interpreters with keyboard there are several systems for computer assisted note taking (CAN), most often named were C-Print and TypeWell, but a more detailed list can be viewed at Stinson et al. article (Stinson 1999:8), which lists different expressions (except TypeWell) and shows a great variety concerning abbreviations, writing style (summary or verbatim), and required skills. The training is done by training audios and manuals and a special computer program can be used, too. Training for C-Print takes place in cooperation with a university.

Voice writers or respeakers are trained online for 5 to 9 months depending on the training center or for 2 years at Brown College of Court Reporting. The training consists of occupational characteristics, technology, speed building, language education, medical and legal terminology and praictical applications (see BSCR 2012).

Written interpreters using stenography are trained 2 to 5 years at private or public institutions. The free software Plover tries to develop a model for self-taught training for stenography using video games and tutorials, but it is not finished yet. However, many stenographers become court reporters, subtitlers or else with a better standing than CART providers.

Several certificates are available (see right column). For CART that is e.g. the Certified CART Provider (CCP). The exam for CCP consist of a written knowledge test (about CART, writing realtime, language skills, research) and a skill test (set up of equipment, 5 minutes writing test) (see NCRA [2], p. 6)

Name of written interpreter: captioner, CART (Communication Access/Aided/Assisted Real-Time Translation), real-time stenographer, real-time captioner, voice writer, note taker

Population: 315,350,288
(U.S. Department of Commerce 2013)

Number of written interpreters:
- 500-1000 stenographic CART providers
- about 280 registered at NCRA

Number of hard of hearing people:
25,228,023 (8 % of population),

Techniques:
keyboard, respeaking, stenography, velotype

Laws and regulations:
- general laws depending on anti-discrimination or rights of persons with disabilities.
- laws / regulations for use and payment of written interpreter
- laws / regulations for use and payment of sign language interpreter that counts for written interpreters, too

Remote work: yes

Remote platforms:
speche Communications, Join Me, Team Viewer, Stream Text, GP4 Software, GoToMeeting, Teleview, Google Hangouts, Skype

Training:
- 2-5 years for stenography
- 5-9 month for voice writing
- some weeks to 3 month for keyboard
- at private or public institution or online or with training tapes and manuals

Also self-taught written interpreters do exist. Trained and untrained written interpreters are usually freelancers, but sometimes they are employees, too. They work in all kinds of situations, the payment depends on the situation. In many situations it is the government that pays, but also local politics, companies that employ deaf, deafened or hard of hearing people, courts, universities or school districts. Several laws regulate the use and payment of written interpreters.

Concerning transcripts many participants answered, that corrected and uncorrected transcripts are possible. Others put in, that it has to be corrected or that it has to be agreed upon first. Anonymisation because of privacy protection, thoughts about copyright and special situations where a transcript is not allowed were put in, too. One participant deletes transcripts.

Exams / Certificate:
Certified Realtime Reporter (CRR), Certified Verbatim Reporter (CVR), Certificate of Merit (CM), Registered Diplomat Reporter (RDR), Registered/Certified Broadcast Captioner (R/CBC), Registered/Certified CART Provider (R/CCP), Realtime/Certified Verbatim Reporter (R/CVR), Certified Shorthand reporter, California CSR license

Written interpreter association:
National Court Reporters Association (NCRA)and National Verbatim Reporters Association (NVRA)

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