ENGLISH AS A FOREIGN LANGUAGE FOR DEAF AND HARD OF HEARING PERSONS – CHALLENGES AND STRATEGIES

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INTRODUCTION

When teachers or researchers of deaf and hard-of-hearing language learners come together, one of the issues discussed is always their feeling of isolation and the need for coming together more frequently to share ideas and experiences. This is what happened at the 12th Conference of the European Society for the Study of English (ESSE) in Kosice in 2014 as well. The initiative of Ewa Domagala-Zyśk to have a separate section on hearing impaired learners of English within this huge international event received eager support from all contacted colleagues from France to Norway or Serbia. The special seminar entitled *English as a Foreign Language for Students with Special Educational Needs – Exceptional English for Exceptional Learners?* and convened by Ewa Domagała-Zyśk and Edit H. Kontra was a great success and the enthusiasm of the participants gave birth to the idea of publishing their presented topics as fully-fledged articles in an edited book and making it accessible to the wider community of teachers and researchers working in the field. When teachers tell their stories it soon turns out that the challenges are the same or very similar, and this in itself can give support. Sharing the responses to challenges and the worked-out solutions to the problems leads not only to adding a few new items to each teacher's individual resource pack, but the process of discussing issues with other professionals may also give birth to further ideas and new initiatives.

The feeling of isolation of those involved in teaching foreign languages to hearing impaired language learners and of those who embark on investigating this process comes from the special circumstances of hearing impaired persons and their education. Deaf and severely hard-of-hearing persons are not only special needs learners; they have a special history, they are special linguistically, culturally and socially. They need foreign languages just as their hearing peers if they want to enjoy the same benefits of technical advancement and globalization of our times, yet they cannot take part in the same foreign language (FL) education: the approaches, methods and materials developed and teachers trained for hearing learners are inadequate6.

In the past few years, English has undoubtedly become the most frequently learnt and used foreign language in Europe, and not without a reason. According to data published in the 2012 Special Eurobarometer 386 (http://ec.europa.eu/public_opinion/archives/ebs/ebs_386_en.pdf), English is the most widely spoken foreign language in most of the member states. What is more, 67% of the people asked in the countries of EU27 consider English the most useful language for their development and career and 79% think their children should learn it. Three quarters of Europeans maintain that improvement in foreign language skills should be a policy priority. It is also important to note that an overwhelming majority, 68% have voted for the school as the best place to learn a foreign language as opposed to taking classes at a language school (15%), from a private tutor (9%) or doing self-study (12%). These figures give strong support to the argument that teaching foreign languages especially English to hearing impaired students at various educational institutions should receive much more attention than before so that deaf and hard-of- hearing children, adolescents and adults can enjoy the same benefits of foreign language skills as their hearing peers.

According to the website of the World Federation of the Deaf (www.wfdeaf.org), currently there are approximately 70 million deaf people in the world, who have fought long and hard for equal opportunities in every sphere of life including education. Response to their needs has come from two fundamentally different directions. One tendency has been to close the gap between deaf and hearing learners by reducing the effects of hearing loss with the application of highly developed technical devices and by intensive training in speech thus fostering the integration of hearing impaired people into the majority society.

In the past few decades, however, there has been a body of research promoting the cultural view of deafness, according to which Deaf people with a capital *D* constitute a linguistic and cultural minority whose native or first language is their national sign language: a fully legitimate, natural, visual-gestural language which has its own extensive vocabulary and complex grammar. As a result, today more and more states officially recognize the rights of Deaf and severely hard-of-hearing students to bilingual-bicultural education, which many believe provides a better base for foreign language learning as well.

This edited volume includes studies influenced by both traditions. Instead of reconciling the differences or establishing a neutral mean, each author presents their research and methodological suggestions based on the views about deafness that they identify with.

In Chapter One of this volume, Nuzha Moritz (France) presents the issue of oral communication and intelligibility of deaf speech. The paper is based on empirical research which aimed at explaining the low intelligibility of deaf speech in terms of acoustic and articulatory deviations. The research took the form of a case study of two participants and resulted in a thorough description of typical (segmental and supra-segmental) errors in their speech production. The results confirm that on the segmental level consonant errors like substitution, omission and devoicing are more harmful to intelligibility than vowel errors. Supra-segmental analysis revealed that inappropriate intonation contours and speech rate are the main causes of unintelligibility. The research results have practical implications for FL teachers: understanding the characteristics of the speech of deaf and hard-of-hearing (D/HH) students might be a fruitful starting point for facilitating the process of learning a foreign language by this group of students.

Chapter Two, prepared by Anna Podlewska (Poland), continues the theme of foreign language speech production and examines the unique potential of cued speech (CS) in teaching English as a foreign language (EFL). It presents the results of a case study of two prelingually deaf university students. They participated in a course designed to improve their spoken foreign language performance with the support of cued speech. Twelve speech samples of the participants, including oral reading, spontaneous speech and language elicited by the researcher were recorded and later assessed by native and non-native listener judges. The results show that both students received statistically significant better ratings at the end of the course (after four years of using CS) in terms of content comprehension, pronunciation accuracy and word transcription. The results confirm that D/HH students who communicate orally in their national languages are capable of developing all language skills, including pronunciation and speaking. Moreover, simultaneous use of auditory and visual modalities contributed significantly to the increased FL speech intelligibility scores. The study calls for integrating pronunciation practice in FL courses for D/HH subjects which is highly profitable when performed with the systematic use of CS.

Chapter Three covers the issue of using sign language in EFL classes for deaf pupils. The author, Patricia Pritchard describes Norwegian experiences in this field. Norway is one of those countries in which Deaf students' right for education in sign language is fully respected. Moreover, similarly to their hearing peers, they have their own national curriculum in English, which leads to a national examination. The aim of FL education is thus to achieve age-appropriate literacy and the ability of independent communication in a FL. Depending on the personal characteristics or the choice of the student, this communication may take the form of oral or written interaction or communication in British Sign Language (BSL), Signed English or American Sign Language (ASL). The chapter presents theory and methodology of EFL classes for deaf learners. It underlines the need for teachers to assess the student's actual educational needs and address them rather than follow pure FL methodology. The author strongly supports the use of BSL as a highly motivating tool to develop communication and highlights the usefulness of Phonics Instruction for teaching English literacy skills.

Chapter Four partly continues the topic of using sign language for communication in FL classes for deaf students. Written by Joanna Falkowska from Poland, it describes her experience during one year of *action research* in a group of 25 deaf students. The author discusses their communication strategies and advocates the individualisation of the class environment by adjusting it to the particular communication needs of the given students. Thus, the FL class environment might be monolingual, bilingual or trilingual and only then can it lead to high performance and satisfactory progress of each individual.

Chapter Five prepared by Katalin Piniel, Edit H. Kontra, and Kata Csizér introduces the issue of D/HH language learning from the teachers' perspective. The study was conducted in Hungary and is based on class observations and individual interviews with 10 FL teachers in special needs schools. It reveals both the teachers' devotion and creativity and the lack of appropriate methodology and teaching materials. Despite the overall positive attitudes of teachers towards the idea of teaching foreign languages to D/deaf students, the authors observed serious communication problems as Hungarian schools advocate mainly the auditive-verbal approach and teachers without sign language skills have no means for barrier-free communication with their students. The chapter ends with a strong recommendation: in order to teach effectively, language teachers should complete training in special needs education (SEN) and learn

Hungarian Sign Language (HSL) for barrier-free communication with the students. The authors also advise FL teachers in mainstream schools to learn from special school teachers' experiences as this may help them to be better prepared for teaching D/HH students in integrative settings.

Chapter Six comes from Serbia, where Iva Urdarević started pioneer work of both teaching and analyzing English as a foreign language classes for D/HH learners. Her study introduces Serbian regulations concerning this issue, which shows the international character of surdoglottodidactics and its main problems: they are similar in different countries and this calls for international cooperation . In the second part of the chapter the author shares her experience in using different teaching methods and strategies to make the teaching of English more effective, pointing out especially the significance of D/HH students' participation in international exchange programs. Such project-based learning is perceived as most motivating and successful for the students.

Chapter Seven addresses the topic of deaf learners' reading skills development in English as a FL. The author, Jitka Sedláčková from the Czech Republic, first observes that reading in the deaf students' first language has been recognized as a challenge and the problems are even more complicated in the process of foreign language acquisition. However, this should not discourage the teachers from promoting effective FL reading strategies. The chapter describes an example of a reading strategy instruction framework developed for the purpose of implementing a series of interventions in deaf university students' learning English. The main features of the interventions are explicitness, the teacher's modelling of the strategies presented and the learners' repetitive hands-on practice. The research adopted a qualitative approach with the analysis of multiple case studies. The author advocates the conscious use of such reading strategy instruction practice and shows its beneficial outcomes for deaf students.

Chapter Eight depicts the issue of vocabulary teaching strategies in EFL classes for D/HH students. It was prepared by Ewa Domagała-Zyśk from Poland and is based on her several years of experience in teaching English to D/HH university students. In the years 2000-2014 she was teaching EFL to 40 D/HH students, introducing innovative strategies, communicative tools and techniques. The chapter presents first of all D/HH students' difficulties in learning FL vocabulary and points to their chances in mastering a satisfactory repertoire of FL vocabulary, enabling

them independent communication in this language in education and everyday situations. The second part of the chapter is devoted to the presentation of a few teaching strategies: Vocabulary Personalization, Vocabulary Emotionalization, Word Semantic Analysis and Word Morphological Analysis which proved to be effective and motivating for the students. The author argues that the most beneficial way to address surdoglottodidactics is to augment and make accessible the existing FL teaching strategies and adjust them to D/HH students' special needs.

Chapter Nine was prepared by Beata Gulati and deals with the topic of visualizing as an effective way to teach EFL. She observes that most D/HH students having their sense of haring comprised have their sense of sight enhanced. This fact calls for the extensive use of visuals and the utilization of the students' visual perception. In the chapter the author shares with the readers her experience of an EFL course for 15 D/HH students and the ways of visualizing the teaching of reading, writing and speaking by using sign languages, pictures, video clips, films, posters, mind maps and so on, so as to cater for D/HH students' special needs. Concluding the chapter, the author encourages teachers to get acquainted with the chances and challenges that are brought into the classroom by D/HH students, to keep a record of that knowledge and share it with others.

Chapter Ten is devoted to the concept of immersion in the language in EFL classes for D/HH students. It was written by Anna Nabiałek from Poland, who shares in it her personal experiences and reflections. The author perceives immersion in the language as unquestionably one of the most effective ways of teaching, also for D/HH students. The paper presents the unique experiences of a group of five Polish D/HH students who were invited to improve their English in one of the British universities. Describing the steps of this experience, the author points to the necessity of social support for the students at this stage of FL learning when they start to communicate in the target language with native speakers. She also claims this experience very rewarding, motivating and worth repeating.

technology to visualize content, modifying the pronunciation exercises, using different communication means and individualizing the content according to the learners' needs. The author concludes that taking into consideration the huge diversity of the D/HH population, a *one size fits all* solution does not exist. This demands first of all a careful assessment of the students' needs and the teacher's creativity in modifying the learning materials so as to make them user-friendly, motivating and effective.

It is our pleasure to invite you to read this unique book. We are sure you can learn from it a lot about the methodology of teaching foreign languages to deaf and hard-of-hearing students or update your knowledge in it. You will find here the present-day strategies for developing D/HH learners' both receptive and productive skills as we share our experiences of teaching reading and perceiving the language via the amplified sense of hearing or vision (by listening and/or seeing the language), but also good practices of evoking language production – in writing, speech or cued speech. We wish you also a lot of success in your teaching experience with deaf and hard-of-hearing students.

CHAPTER ONE

ORAL COMMUNICATION AND INTELLIGIBILITY IN DEAF SPEECH

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1 Introduction and background

The aims of this pilot study are twofold: first, to shed further light on the intelligibility of oral speech of deaf and hard-of-hearing speakers and the impact it could have on learning English as a foreign language. Second, the study will investigate in what way the speech of deaf and hard-of-hearing people (from here on: deaf speech) could be an obstacle in the integration of hearing impaired students in higher education. We believe that a better understanding of deaf speech in the academic sphere could be an encouraging aspect in the process of integration in higher education.

Communicating and socializing with people in everyday life is essential. This is also the case in a classroom where different activities, interactions and collaboration in pair or group work take place and lead to successful learning outcomes. Unfortunately this is not the case for deaf learners who face a wide variety of difficulties in the classroom as described by Stinson and Antia (1999, cited in Herman & Morgan, 2011):

> They include: fast rate of discussion; rapid turn-taking; frequent changes of topic; inclusion of many speakers in discussions; and instances where several students speak concurrently leading to unmanageable levels of noise. Overcoming these barriers requires skilled and sensitive management (p. 108).

At university level in France, mainstream teachers' lack of awareness concerning deaf and hard-of-hearing learners is obvious, especially in teaching foreign languages. Managing a language classroom with hearing and hearing impaired students is a real challenge. Misunderstanding and ineffectiveness of deaf and hard-of-hearing messages lead to communication failure and discouragement on both sides (Most, 2010). One of the major issues besides poor vocabulary and syntax is pronunciation. Deaf and hard-of-hearing students' production is judged as unintelligible because of the numerous errors produced on segmental and supra-segmental levels. Some examples include omissions, reductions, consonant devoicing, high pitch and so on. But other factors such as social integration, the impact on interpersonal functioning or others' perceptions might also come into play when communicating with hearing peers in

class or in everyday situations (Most, 2010). This is also the case in academic contexts such as colleges or universities. This pilot investigation examines deviation in deaf and hard-of-hearing speakers' production and its perception in the context of learning English as a foreign language. The study will mainly focus on segmental errors within a phonetic and phonological analysis. Since from the point of view of the investigation no sharp distinction can be drawn between deaf and hard-of-hearing, from here on the word *deaf* is going to be used as an overarching term.

2 Context

This qualitative pilot study is incorporated within the framework of a future project at the University of Strasbourg, entitled *Phonological Assessment of Deaf Students' Production* (PADSP). Disabled students (i.e. deaf, blind or those on wheelchair) who enrol at the University of Strasbourg quit most of the time after one year of study. We admit that the number of hearing impaired students is very limited in the first place, between two and three each year; most of them attend a special educational programme for people with hearing loss. Unfortunately none of them has reached a graduation level so far. There are no adapted structures for deaf students at the University as it is the case for blind students who have special aids, for example documents written in Braille, extra time during assessments and sometimes special assessment sessions. They also have tutors to guide them around and take notes for them. Regrettably, deaf students do not have any kind of assistance. They do manage with handouts and documents online, but face serious difficulties when it comes to oral communication. The first step of the PADSP project is to investigate and describe deaf students' oral production so as to understand their speech characteristics. Understanding deaf speech could help teachers to understand their students' oral communication better so they could adapt their class activities in a way that would allow deaf students to take an active part in class. The analysis of the reception and perception of deaf speech is based on two levels: phonetic, that is to say the articulatory aspect of speech and a phonological one, which concerns the contrast of meaning. Its objective is to describe deaf students' production in English as a foreign language and to establish the type of errors that prevent the understanding of their speech. Deviations or errors are classified according to segmental and supra-segmental categories. The phonetic test used in the project consisted of the reading of a set of sentences by deaf students. More details about the method and the analysis are given in section 4. We believe that the description of oral deaf speech

can raise teachers' awareness, which is considered essential to improve the integration of deaf students at university in general and to help them move onward toward a more interactive goal.

3 Oral communication and intelligibility

In oral communication speaking and listening skills are needed to have a conversation, exchange thoughts and information with an interlocutor. In most cases the speaker and the listener share the same language and culture, which allows them to understand each other's intentions and the implicit aspects of their conversation. This process, however, is impeded in the case of *communication disorders*. A communication disorder is defined by the American Speech-Language-Hearing Association (1993) as:

> An impairment in the ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems. A communication disorder may be evident in the processes of hearing, language, and/or speech.

This disorder could affect different aspects of speech communication and thus make it unintelligible. But what do we mean by speech intelligibility? Carney (1986) defines the term speech intelligibility as an "oral speech-language output that allows a listener to understand what a speaker is saying" (p. 47). In interactions involving hearing people and people with special needs like deaf children or young adults, the ongoing conversation could be interrupted due to misunderstanding or complete lack of understanding which lead most of the time to speech intelligibility issues. This chapter considers one of the main issues concerning speech deficit in oral communication: intelligibility. In oral communication between hearing and deaf individuals, some factors affect the successfulness of the oral exchange due to some features of deaf people's speech. These common features have been identified by many scholars and classified in different categories: segmental and supra-segmental features and voice quality. According to Ertemer (2010), intelligibility of severe to profound deaf speakers' speech is on average about 20% only. As pointed out by Povel (1974), this low score can be explained by the fact that in the absence of the norms a hearing child is trying to imitate during the process of speech acquisition in terms of production and perception of sounds, deaf children have no norms to match their own acoustic production to. As a result, acquiring verbal communication skills

is a great difficulty to overcome. Fletcher, Dagenais & Critz-Crosby (1991) confirm that perception precedes production; consequently sounds which are hard to hear are also difficult to produce. In his study, Povel, (1974) explains that production and auditory norms should be explicitly described to deaf children through tactile, kinaesthetic and visual feedback. However, the outcome of this shift in modality leads to confusion between sounds and typical errors are produced by deaf speakers. These errors are deemed to have a negative effect on intelligibility, thus hearing people have considerable difficulty in communicating with deaf persons in everyday life situations. Deaf people have problems in making themselves understood but they also face understanding difficulties. For example in the case of learning a foreign language, understanding difficulties seem to be serious due to several reasons like unknown vocabulary, difficult pronunciation, oral comprehension issues, and so on. When deaf learners attend mixed language classes with hearing peers for instance, they cannot handle normal speech rate in a foreign language so it is hard for them to take part in ongoing debates in a foreign language where several students speak concurrently in a rather noisy atmosphere. Their lower level of knowledge and lower functional communicative skills in English as a foreign language represent serious obstacles. Another difficulty is the fact that deaf speech is sometimes not understandable by hearing students and unfortunately the oral activity with their hearing peers most of the time comes to an end before it is completed.

4 Method

Deaf speech is described in the literature as incomprehensible due to some segmental and supra-segmental characteristics. Deaf speakers' errors are deemed to jeopardise comprehensibility and have negative consequences on intelligibility in ordinary communication contexts and particularly within the framework of a foreign language. To evaluate the intelligibility of deaf students' production in English as a foreign language on a phonetic and phonological level, a qualitative study was conducted involving deaf university students who were enrolled at the Applied Modern Language Department. In order to understand the deviant segmental and supra-segmental features in deaf students' productions perception and production tests were carried out involving two deaf students and three inexperienced listeners. This qualitative study tries to give account of the main segmental and supra-segmental issues of deaf students learning English at university level. In this respect, it is to be

noted that despite the fact that the two participating students could communicate orally, they mainly used sign language for communication.

4.1 Participants

Due to the limited number of hearing impaired students at our university only two students took part in this research project. Both of them were French native speakers enrolled in the first year and majoring in English as a foreign language. One was 19 years old and the other 20. They have been learning English as a foreign language for seven years at school. So far in the study we have not measured their hearing loss or pure-tone averages yet, as they were enrolled at the university/department of Applied Modern Language as disabled students with significant hearing loss. Three raters were asked to evaluate the intelligibility of the sentences: two of them were non-native English teachers at the University of Strasbourg and the third was a non-native Master's degree student majoring in English. The research team chose them because they were all considered as inexperienced or naïve listeners, that is to say listeners who were not familiar with deaf speech.

4.2 Recording procedures

The two students were asked to read the following set of ten sentences with declarative or interrogative intonation twice. A printed index card of the sentences was made available to the participants:

1. My mother had a fur coat.
2. There was nothing to say but thanks.
3. She guarded the child from danger.
4. The rail track is overgrown?
5. She loved that dress?
6. Three blind mice see how they run.
7. This street is crowded
8. She gave a prize for the best one?
9. He never gave it another thought?
10. She put the car in the garage?

The sentences were taken from a study by Corrigan (2010), and this choice was motivated by the fact that they were designed to incorporate Wells' (1982, cited in Corrigan, 2010, p. 22) English *lexical set*. It

includes all the vowels, consonants and diphthongs of the English language. Corrigan (2010) gives a clear description of this lexical set:

> It aimed to establish patterns of regional variation in the phonologies of English dialects globally and has come to be viewed as a standard model (…) His strategy was to devise a collection of headwords/keywords that would potentially discriminate between varieties without the need for the concomitant complexities of IPA (International Phonetic Alphabet) (p. 30).

Before the recording session, the two participants were given clear instructions and explanations on the goal of the experiment and how the recording test in a sound-treated booth would proceed. The participants' productions were first recorded individually on an audio-tape and then evaluated by three raters. The raters were asked to listen to the recordings as many times as they wished, write down the sentences and rate their intelligibility as: intelligible, quite intelligible, poor or very poor. They were also asked to underline the words or part of words (syllables, vowels, diphthongs or consonants) which they consider unintelligible and think may hinder the understanding of the sentences. Based on their subjective impressions listeners were also asked to rate the adequacy of intonation patterns for each sentence by simply stating if it corresponded to a statement or to a question. This judgement was used for supra-segmental analysis and provided valuable information on the intonation contours of the students' production. According to the simple definition given in the online version of the Collins English Dictionary, *intonation pattern* or *intonation contour* refers to "a characteristic series of musical pitch levels that serves to distinguish between questions, statements, and other types of utterance in a language." The sentences deaf students were asked to read for the test had simple intonation patterns, either declarative with falling intonation contour or interrogative with final rising contours. In their judgement the raters had to rely on pitch-movement variations. A member of the research team made a phonetic transcription of the audio-tape using Wells' 'lexical set' symbols and some additional diacritics to transcribe unintelligible sounds. Vowels and consonants which were judged unintelligible by the raters were analysed acoustically and compared to reference values using the Praat (Dutch word for "talk" or "speak") software, a free scientific computer software package for the analysis of speech designed and continuously developed by Paul Boersma and David Weenink of the University of Amsterdam (Boersma & Weenink, 2011).

5 Acoustic analyses

Acoustic analyses give precious information on speech properties and qualities. They show deviations from reference values which are associated with reduced intelligibility (Monsen, 1978). In this research, we probed into the impact of deaf students' errors on oral communication by measuring some acoustic characteristics. This allowed us to gain insight into how deaf students articulated some sounds in English and what impact this pronunciation had on intelligibility. We selected some acoustic measurements which had been used previously in studying the speech of deaf children (Goldhor, 1995; Monsen, 1974, 1976b, 1976c) and compared our results with reference values. The analysis also helped obtaining a number of acoustic attributes which we think characterize deaf speech and have largely contributed to the incomprehensibility of the two deaf participants' productions.

5.1 Segmental analyses

Segmental analyses in general include different measurements of speech vowels and consonants and depend on what the objective of the research is. Vowel analyses in the present study are mainly based on vowel duration, which is measured in milliseconds, and on *vowel formant* analysis in Hertz. Vowel formants are the resonant frequencies of our vocal tract when we pronounce a vowel. We perceive a vowel and its quality according to its formants values F1 and F2, which are represented by dark bands of frequencies or energy peaks in the spectrum of the sound. Precise vowel formant values can be obtained using the Praat software.

Relative vowel duration helps to distinguish between long and short vowels and provides an evaluation on speech rate. Since speech rate influences the perception and understanding of oral speech (Monsen, 1974) the present research study has looked for elements that could shed light on deaf speech rate. Vowel, word and sentence duration are measured in the two deaf students' production. Vowel quality is also measured by analysing the first and second formants. The Acoustical Society of America (1994) defines formants as "a range of frequencies in which there is an absolute or relative maximum in the sound spectrum." Relations between formant frequencies, first, second and third formants, termed F1, F2 and F3 are examined in the deaf students' productions since different scholars have demonstrated that formants are the principle cue for the perception of vowel quality. Formant measurements give valuable information about the vocal tract movements like tongue movements, to what extent the tongue could stretch forwards or backwards for example

and to which height it is raised. The F2 axis represents front-back movement of the tongue, whereas F1 refers to the degreeof tongue and jaw height variation. Vowel formant analysis gives valuable information on vowel realisation and may reflect the capacity of a deaf talker to control his tongue movements (Monsen, 1976b). The study will also inspect the vowel neutralization phenomenon since it is strongly linked to tongue movements. The phonological space for vowels, that is to say the minimum and the maximum values of F1 and F2, are particularly reduced in the case of a vowel neutralization phenomenon and may affect intelligibility. Many scholars, among others Levitt & Smith (1972), Monsen (1976b), and Smith (1975) proved that neutralization is considered as one of the most important errors in hearing impaired speech. We believe that vowel neutralization plays a significant role in vowel perception, acoustic input and intelligibility.

The performed segmental analysis also included consonant investigations. English consonant description is generally based on three features: voicing, place of articulation and manner of articulation. For example the difference between a /v/ and a /p/ sound is that /v/ is described as a voiced, labiodental, fricative consonant whereas /p/ is a voiceless, bilabial, plosive consonant. Thus our deaf participants' consonant productions were examined for any distortions in the intrinsic characteristics of the three features: voicing, manner and place of articulation.

5.2 Supra-segmental analyses

At this stage of the research, supra-segmental analyses were limited to pitch movements and speech rate analyses. The study has not included word and sentence stress analysis yet. According to Levitt, Smith & Stromberg (1976), intonation contours in deaf and hard-of-hearing speech are monotonic pitch contours. This is because due to the obvious lack of the speakers' ability to control their vocal folds, their pitch variations are often limited and the outcome of restricted pitch variations is a monotonous and unnatural speech. These restricted pitch variations are most of the time associated with high pitch (Calvert, 1961; Smith, 1975). High pitch use by deaf speakers is likely due to the fact that they use further vocal efforts when speaking, which gives them an awareness of the onset of the voicing process (Willemain & Lee, 1971).

Perception of intonation is strongly linked to temporal structure, that is, phoneme, syllable, word and sentence duration. Up to now, we have concentrated the analysis of speech rate on word and sentence duration as

well as raters' evaluations of intonation patterns. This allows us to identify the degree of deviation in the temporal domain and to what extent this deviation influences oral comprehension and intelligibility.

6 Results and discussion

Students' productions were rated by the two raters as poor for one student and very poor for the second one. The third rater considered both productions as very poor and difficult to understand. Hereafter the results for both students will be discussed together.

Regarding the segmental errors, the results show that words and parts of words which were underlined by the three raters and deemed to be unintelligible were related to confusions and mispronunciation of several consonant and vowel sounds. The most striking aspect is consonant substitutions: voiced plosives like /b/, /d/, /g/ were replaced by their voiceless cognates /p/, /t/, /k/. For example in sentence number 3 "She guarded the child from danger," the consonants /g/ and /d/ were devoiced and pronounced /k/ and /t/ instead. The same substitution was found in sentence 4 *"The rail track is overgrown,"* where /g/ became /k/. Voiced fricatives /ð/, /v/, /z/ were replaced by voiceless /Ө/, /f/, /s/. In sentence 6 "Three blind mice see how they run", the /ð/ consonant was substituted by the voiceless /Ө/ in *they*. Examples in sentences 8 and 9 "He never gave it another thought" and "She gave a prize for the best one" confirm this tendency and illustrate the substitution of /v/ and /z/ by voiceless consonants /f/ and /s/ as well as a devoicing of /ð/ in *another* and *the* and of */b/* in *best*. The same sentence sometimes included more than one consonant substitution; in sentence 5 "She loved that dress," for example, there were several consonant substitutions, voiced fricatives and plosives were devoiced like for example the /v/ consonant in the word *loved* and /ð/ in the word *that,* which became /f/ and /Ө/ respectively. The /d/ in both *loved* and *dress* became a /t/ consonant. So instead of hearing /'ʃiː lʌvd ðæt dres/ the raters heard /'ʃiː lʌft Өæt tres/. Consonant substitution is probably due to temporal distortion as explained by Monsen, (1976c, 1978); voiceless consonants are produced with longer duration than their voiced counterparts, which makes it easier for deaf learners to pronounce. We believe that consonant substitution in deaf speech could simply be the consequence of the participants not hearing their own voice properly.

Compound consonant omission was also found in both of our deaf students' productions. In sentence 7 "This street is too crowded," for instance, /str/ in the word *street* became /st/ for one speaker and was pronounced separately as /s t r/ by the other one. Compound consonant

omission could be misleading either because the word is pronounced differently as in the example, *steet* instead of *street* by dropping the */r/* consonant, or because word consonants are produced separately, most of the time at a slow speech rate, which affects intelligibility.

A great amount of nasalization can be noticed in the participants' production but this aspect seemed to have a lower impact on intelligibility as no rater mentioned this feature. A different type of consonant substitution linked to the manner of articulation occurred when the nasal consonant /m/ was surprisingly pronounced as a /p/ in sentence 1 by one of the deaf students.

Concerning vowels, values of formants F1 and F2 showed clear limitations in both horizontal and vertical degree of tongue movements. If represented in a vowel diagram, the stretch of the tongue movements would be rather centred in the middle of the vocal tract. This limitation implies insufficient variation especially in F2 variation and leads to a vowel neutralization phenomenon. In vowel neutralization the tongue does not reach the front and the back areas in the vocal tract as it should when pronounced by a hearing speaker, consequently the pronunciation of some front vowels like the long /i:/ in the word *street*, in sentence 7 and /e/ in the word *best*, in sentence 8 were neutralised by both speakers. We observed the same phenomenon in sentences 2 and 8. Back vowels /ɔ:/ and /ɒ/ in *for* and *was* were substituted by the central vowel /ə/. Levitt & Smith (1972), Monsen (1976a) and Monsen & Shaughnessy (1978) proved that F2 variation is more significant for intelligibility than F1 variation as F1 variation is both visually and auditorily more accessible to deaf speakers. According to the ratings of the three listeners, vowel neutralisation is found to be a very confusing aspect for intelligibility.

Finally, concerning segmental errors, two diphthongs were found to be monophthongised: in sentence 6 the diphthong /ai/ in *blind,* and in sentence 7 /aʊ/ in *crowded.*

Regarding supra-segmental investigation as mentioned in the recording procedure section above, the evaluation was based on the three raters' subjective impressions and involved speech rate and intonation patterns. This choice was motivated by the fact that contrary to segmental errors supra-segmental errors are very complex to evaluate. Regarding speech rate, listeners judged the two participants' production as slow and containing too many pauses between words and even within words giving their speech a kind of a 'staccato' character (Gold, 1980). Measurements confirmed this judgement; the participants' sentences had longer duration than the reference sentences. Although the read sentences were very short, pauses were numerous, and as a consequence, word and sentence duration were stretched giving the sentence an odd rhythm that strongly affected

intelligibility. Prosodic deviation observed in deaf speech intonation contours included inappropriate variations of pitch and loudness. They were described by the three listeners as inadequate most of the time or unnatural as they did not always reflect the expected meaning of the sentence. The recurring expressions the three raters used to describe the two deaf students' intonation contours were either monotonous contours or representing excessive pitch variations.

Pitch analysis of the two students' intonation contours using Praat, confirmed the raters' evaluation. Pitch lines did not show significant variations, very little rises and falls were noticed and almost no peaks appeared on pitch movements. Interrogative sentences showed a slight rise at the end of the utterance. These preliminary results show that deaf students' production could constitute a serious obstacle in oral communication intelligibility due to both segmental and supra-segmental aspects. One could understand how difficult it is for both deaf students and their hearing peers to communicate in English in class or in any other academic situation.

7 Conclusion

The preliminary results of this pilot study clearly exposed the unintelligibility of deaf learners' speech. The question of intelligibility in oral communication was approached from two different aspects: segmental and supra-segmental. Acoustic analysis of a production and perception test lead to the following observations: segmental errors, such as consonant substitution, omission and devoicing seem to play a great part in deaf speech intelligibility. Vowel errors were mainly due to a neutralisation phenomenon, where deaf tongue movements were found to be limited in the vocal tract preventing deaf speakers to fully pronounce the different vowels and diphthongs, hence reducing intelligibility. Another segmental issue in deaf speech is the poor quality of vowel production which plays a great role in the unintelligibility of deaf speech. Supra-segmental deviation of intonation contours and speech rate are also viewed as significant in speech intelligibility. Intonation contours were judged monotonous and lacking variations, speech rate was described as slow but with lesser impact on intelligibility. If results suggest that deaf speakers experience difficulties with some segmental and supra-segmental features of English as a foreign language, adapted solutions must be found to help hearing impaired learners and their hearing teachers to understand each other and facilitate deaf integration in foreign language classes. We believe that a first step to help English teachers to understand deaf speech

is an advanced knowledge of the segmental and supra-segmental characteristics of deaf speech. This could be done with the help of specialist educators and phoneticians. We are aware of the fact that comprehending these characteristics will not be a satisfying response to deaf speech unintelligibility but could be a starting point. Finding more relevant solutions will be the second step of the project as we still need more data and the help of educators and specialists in the field. These preliminary results cannot be generalised as the number of participants was limited and we need to gather more information about the participants' degree of hearing loss or their pure-tone, their social status and educational background.

We are aware of the fact that this pilot study is only the first step in the project but we do believe that more research should investigate deaf learners' difficulties and needs in learning oral communication in a foreign language including speech production and comprehension, (Kontra, Csizér & Piniel, 2014). Deaf students' opinion about learning English as a foreign language and the difficulties they meet could shed more light on the issue and help us to improve their learning conditions.

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CHAPTER TWO

THE USE OF CUED SPEECH TO SUPPORT THE DEVELOPMENT OF VERBAL LANGUAGE SKILLS IN ENGLISH LANGUAGE INSTRUCTION FOR DEAF AND HARD-OF-HEARING STUDENTS

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1 Introduction

Speech perception and production are both learned skills that are expected to change over time. As newborn infants all hearing individuals have the same potential for producing the sounds of all world's languages, however, as the system of sounds is formed on the basis of language experience, babies gradually stop paying attention to those sounds or aspects of sounds that are not frequent or have no contrastive function in the language(s) spoken around them. Kuhl (1991), for example, suggests that exposure to native speech sounds changes the way perceptual dimensions are partitioned and that perceptual sharpening that occurs during development may reflect this reorganization. Although the ability to perceive and articulate sounds of a new language/new languages fades away, it is not completely lost even in late adulthood. That is to say, noticing, processing, and articulating contrasts other than those present in the native language(s) spoken by hearing adult learners become more difficult, but not impossible.

Any degree of hearing loss can prove a serious obstacle to speech development and effective verbal communication in both national and foreign languages. This obstacle, however, does not have to be insurmountable. The spread of universal hearing screening and early intervention programs, advances in technological devices which supplement the impoverished acoustic signal or offer alternatives to it, advances in teaching and learning approaches and methods as well as improved knowledge of the role of hearing in language learning have all

contributed to the development of near-normal speech skills among the hearing impaired in their national languages.

The information currently available about the speech skills development of deaf or hard-of-hearing (henceforth D/HH) foreign language learners is scarce and mostly based on English as a foreign language (EFL) classroom-in-action reports (cf. Gulati, 2013; Nabiałek, 2013; Ochse, 2001; Podlewska, 2013) and pilot studies (cf. Domagała-Zyśk & Podlewska, 2012) with the exception of research on correlation between speech production skills in national and foreign languages among Polish students with hearing loss conducted by Domagała-Zyśk (2013). The present investigation is based on the premise that D/HH EFL learners who managed to develop near-normal speech skills in their national language both receptively and expressively want to and, if properly guided and given visual access to the EFL curriculum via cued speech (CS), are capable of achieving highly intelligible speech in the target language. The research presented in the following pages seeks to verify this hypothesis.

2 Fundamental principles of cued speech

Cued speech was devised and developed in 1966 by R. Orin Cornett, Ph.D. while he was the vice-president of long range planning (from 1965 to 1975) at Gallaudet College (now University), Washington DC. Early in his tenure Dr Cornett learnt that deaf students struggle with the written form of English. He became convinced that limited access to the phonology of a spoken language inhibited the development of literacy within that language. Therefore, his chief preoccupation was to provide deaf students with information about the phonological structure of English through the visual channel (Cornett, 1967; Cornett & Daisey, 2001). Cornett worked on the assumption that linguistic development of deaf children would be similar to that of hearing children if the former could clearly perceive every sound-based unit of language as it is spoken. Accurate perception of the natural speech patterns of hearing people would enable deaf receivers to acquire an understanding of spoken language through the eyes instead of through the ears. After he had studied fingerspelling and the Dutch Mouth/Hand system, Cornett devised what he called cued speech. His creation was to become a mode of communication which uses manually supplemented visual information seen on the lips in the same way as spoken languages use acoustic information. In other words, Cornett developed a system whereby the natural movements of speech in combination with manual cues contribute to accurately

conveying messages in face-to-face verbal communication in the real time of speech (Cornett 1985).

The basic rule governing the system is that words are cued as they are pronounced and not as they are written. Cuers complement lip movements of speech with manual cues. A cue consists of two parameters: a handshape and hand location around the lips. The American English form of cued speech uses twelve cues - eight handshapes corresponding to groups of consonants and four hand locations (referred to as side, mouth, chin, and throat) to convey vowels and diphthongs. Later two movements (i.e., side-down and side-forward) were added to the system to clarify the vowel sounds further. Phonemes that are not distinguishable by lipreading are coded with different handshapes, e.g. /t/ - handshape 5, all five fingers extended, /d/ - handshape 1, only the index finger extended, and /n/ - handshape 4, all fingers except for the thumb extended and hand locations, e.g. /iː/ - at the side of the mouth and /ɪ/ - at the throat.

Conversely, phonemes that do not look alike on the lips, e.g. /b/ and /n/ are coded with the same handshape – handshape 4 or at the same location, e.g. /ɪ/, /ʊ/, and /æ/ – at the throat. The consonant sounds that look alike on the lips look different on the hands and the group of consonants of each handshape look different on the lips. In other words, each of the eight handshapes represents on average three consonant sounds. Three vowel sounds are represented at each vowel position. The identification of a group of consonants that have the same lipshape with the simultaneous identification of the same group of consonants by handshape results in only one point of intersection (Cornett 1994).

3 Research and theory supporting the use of cued speech

Over the last few decades, cued speech has been intensively studied, which resulted in the publication of theory and research findings demonstrating its effectiveness. In this literature review the author compiles articles on the speechreading abilities of cuers, the effect of cued speech on language processing, the benefits of cued speech in regard to phonics as well as memory and phonological representations for reading. Other articles reviewed here may be classified as pilot studies set out to examine selected issues concerning the use of cued speech in foreign language instruction.

In essence, there appears to be a general international consensus that profoundly deaf cuers receive spoken language at a very high level of accuracy which is comparable to that of children with normal hearing and

that deaf children exposed to their native cued language by fluent models develop that language according to the same milestones as hearing peers (American research: Clarke & Ling, 1976; Cornett 1967, 1977, 1990; Gregory, 1987; Kipila, 1985; Ling & Clarke, 1975; Nicholls & Ling, 1982; Belgian and French research: Hage, Alegría & Periér, 1990; Leybaert, 2000; Leybaert & Charlier, 1996; Byelorussian research: Jewczik, 2000; British research: Calder & Banham, 2008; Spanish research: Santana & Torres, 2003; Torres, 1991; Torres & Ruiz, 1996; Polish research: Krakowiak, 1995; Krakowiak & Leszka, 2000; Krakowiak & Sękowska, 1996). Deaf children with early and consistent exposure to cueing apply similar skills to those of hearing children to decode and encode oral and written texts when learning to read. This means that deaf cuers develop a phonological representation of words in their national language and are also capable of learning phonics generalizations for spelling (Alegría, Dejean, Capouillez & Leybaert, 1990; LaSasso, Crain & Leybaert, 2003; Leybaert & Lechat, 2001).

Two of the articles reviewed here discuss the opportunities provided by the use of cued speech in foreign language instruction. Bemet and Quenin (1998) followed the language development of 29 D/HH students enrolled in beginning-level Spanish class at the Rochester Institute of Technology (RIT). The group attended four hours of Spanish instruction per week and a one-hour Spanish Language Lab. The Spanish cue system *La Palabra Complementada* (LPC) was adapted slightly for use in the lab. A 90-item vowel-consonant-vowel syllable test was administered to class participants several times in the course of learning to measure the reception of spoken Spanish. The results led the researchers to the conclusion that with minimal exposure and experience even students with very low English speechreading skills were able to show some gains when cues were added.

Clark and Sacken (1998) discuss the application of cued speech in teaching French to a mainstreamed group of 18 hearing and D/HH RIT students. To ensure deaf students' equal exposure to French in the classroom, the researchers incorporated *le Language Parlé Completé* (LPC), the French version of cued speech, as a primary mode of communication. In addition to three hours of regular class, the Pronunciation/LPC Lab was held for 50 minutes on a weekly basis. Four speech perception tests were administered as a pre-test and re-administered following ten, twenty, and thirty weeks of cue training. In general, for the deaf students, post-test scores showed moderate improvements in the reception of vowels (69% average) with cues and of consonants (70% average) with cues.

For all the shortcomings and criticism that could be levelled at the above reviewed pioneering research in surdoglottodidactics, it is clear that

we are now in a better position than ever before to enhance the success of educational practice with D/HH foreign language learners. Studies such as these establish new directions in theoretical and practical progress in the field that is only beginning to reveal its possibility for achievement. The cued speech system's potential importance as a tool for acquiring the phonology of a foreign language by hearing impaired students led the author to design and carry out the present study.

4 Background

The empirical database for this study has been derived from observations and transcripts from English for the deaf and hard-of-hearing class and Cued Speech Lab at the John Paul II Catholic University of Lublin. English for the deaf and hard-of-hearing class has been conducted at the John Paul II Catholic University of Lublin since 1998. It was set up on the initiative of Ewa Domagała-Zyśk (cf. Domagała-Zyśk, 2006, 2009a, 2009b; Podlewska, 2012). In 2009 after she had obtained the Certificate of Proficiency in cued speech issued by the Cued Speech Association UK, the author developed a supplemental Cued Speech Lab with the intent to facilitate the learning of English pronunciation.

The class is taught in small groups of 3-4 individuals or on one-to-one basis by a teacher/translator whose primary tasks include making the content of each lesson more accessible. In order to receive a credit for a course in English, D/HH students need to pass tests in reading (types of tasks include: true/false, multiple choice, matching paragraphs to headings), writing (types of tasks include: e-mail of introduction, holiday postcard, letter of application, letter of apology, letter of complaint, advertisement), lexis and grammar (types of tasks include: multiple-choice tests, gap filling exercises). They are not obliged to take tests in listening and speaking. These skills are nevertheless taught and assessed in class on a regular basis.

Since the majority of English for the deaf and hard-of-hearing class participants use speech and hearing as their main form of communication, the classroom was designed to provide good listening conditions and to facilitate clear communication through speech between teachers and students. Care was taken to reduce the main factors that negatively affect classroom acoustics. Background noise level and reverberation time were reduced by softening the hard surfaces. The classroom was fitted with carpets, sound insulation cork wallpaper and blinds. Gaps between walls and floors were closed with sealant. In addition, students are encouraged

to develop values that ensure noise is kept low. To reduce the effect of distance, care is taken to always position class participants near the teacher or other sound sources.

Many students with hearing impairments have expressed interest in attending both the class and lab. Because the curricular objectives for regular foreign language courses put emphasis on perfecting such language skills as speaking (and pronunciation), listening comprehension, reading and writing, most D/HH students have complained of failing to understand the linguistic and topical content of the lessons and of being marginalized in the classroom.

Although cued speech was originally devised to give the D/HH access to spoken language by conveying all the necessary building blocks, the system has also proved to be a useful tool for focusing on developing specific language skills such as speech production, extensive and intensive listening and literacy. At the John Paul II Catholic University of Lublin cueing is used with the D/HH, to speed up communication in their instruction, to help them clarify their articulation, to minimize the frequency of phonetic errors and to ease the strain of lipreading. It was necessary therefore to create a new approach to accessing English with cued English to match the needs of the students. (For more information on the organization of the Cued Speech Lab cf. Podlewska & Keller, 2014).

The purpose of the four-year study was to investigate the effect of cued speech enhanced EFL instruction on speech intelligibility and pronunciation correctness scores of two highly motivated hearing impaired Polish university students. The specific questions investigated were as follows: What is the effect of the prolonged use of cued speech in EFL instruction on mastering the sounds and pronunciation of the target language by two hearing impaired speakers of Polish? In what way, if any, does exposure to cued speech in instructional environment for EFL learning affect speech intelligibility and pronunciation correctness scores of the learners? What differences exist, if any, between ratings given by different categories of listener judges?

5 Research methodology

5.1 Participants

The study included two hearing impaired female university students with severe-to-profound hearing losses who had been attending English for the deaf and hard-of-hearing class and the supplemental Cued Speech

Lab at the John Paul II Catholic University of Lublin for four consecutive academic years prior to the assessment. Both participants communicate orally in Polish and use hearing aids. They started attending the class and lab at the age of 18. One of them had previous exposure to cued speech adaptation to Polish (*fonogesty*) but was not a proficient user of the system. An EFL placement test taken by the students at the beginning of the course indicated them to be of waystage or elementary level (A2) of the six Common European Framework levels. After a four-year cued speech enhanced EFL course both students passed B1 level tests in English prepared and administered by the Foreign Languages Departments of John Paul II Catholic University of Lublin and University of Life Sciences in Lublin and obtained grade 4 (80% to 90% correct answers). The course teacher/author did not participate in the preparation, administration or marking of the tests.

Sixty judges (30 native listeners and 30 non-native listeners) assessed the hearing impaired students' speech intelligibility in English. The composition of the native listeners group was 13% British, 13% Canadian, and 23% American whereas the composition of the non-native listeners group was 17% Saudi, 10% Spanish, 8% Taiwanese, 7% Swedish, 5% Malaysian, and 3% Thai. All of the participants in the study met such inclusion criteria for listener judges as: age between 18 and 40 years, normal hearing and normal speech, no experience with the speech of persons with hearing impairment. 35 participants were male and 25 female. Of the native listeners group 60% were monolingual speakers of English and 40% were bilingual.

5.2 Measure

An eight-item closed-ended rating scale and an adaptation of the *Beginner's Intelligibility Test* (BIT) (Osberger, Robbins, Todd, & Riley 1994) were designed to measure speech intelligibility of the two hearing impaired students. The scale uses a ten-point response format where 1=poor and 10=very good. Responses are to assess content comprehension and pronunciation accuracy of previously recorded language samples. The adapted version of BIT is to assess the speech intelligibility of young EFL learners with hearing loss using a transcription (write-down) procedure. Each administration of the BIT involved one 10-sentence list. Overall, four separate lists were used. Sentences contained words familiar to the study participants and were syntactically simple. Each sentence contained between two and six words. Lists contained from 34 to 46 words as

follows: list 1: 34 words, list 2: 34 words, list 3: 45 words, list 4: 46 words. Scoring was based solely on the degree of match between the target sentence and the listener judges' responses. Strike-throughs and erasures by listener judges were not considered in the scoring.

Since spontaneous speech typically contains different language from oral reading or language which has been elicited by a researcher, different randomly selected language samples were used for the assessment purposes. The samples were obtained after two and four years of language and speech training in the English for the deaf and hard-of-hearing classroom and Cued Speech Lab. The recordings included: four samples of oral reading (2-minute audio recordings), four samples of spontaneous speech (2-minute video recordings), and four samples of researcher-elicited sentences (audio recordings). In sum, six samples were obtained from each of the two students, three after two years of training and three after four years of training. Recordings of elicitation sessions were edited to remove the researcher's models and extraneous signals.

5.3 Procedures

The judges were assembled in a suitable listening/viewing room in groups of ten. Because of a last minute schedule conflict, two groups completed the task one day later under the same listening/viewing conditions. The judges were given written instructions which asked them to assess content comprehension of the recorded utterances and pronunciation accuracy of the hearing impaired students (parts 1 and 2) and to write down what they hear, guessing if necessary (part 3). Each judge was seated approximately 1.5 metres from a projection screen and the audio volume was adjusted to the group consensus. Recordings of oral reading and spontaneous speech were played once whereas BIT recordings were played twice with 4-second pauses between the cues. No discussion was allowed during independent ratings until all recordings had been presented and rated by each judge. None of the judges had prior knowledge of the scoring procedures used.

5.4 Results

The judges' independent ratings of the two students were treated statistically. In order to check whether there existed a statistically significant difference between the judges' ratings of the recordings captured after two and four years of the use of cued speech in EFL

instruction for the hearing impaired subjects of the study, Student's t test was conducted. Ratings of the speech samples provided by the hearing impaired students are set out in Tables 2-1 through 2-3. The tables comprise M - mean average, SD – standard deviation, t – value of t-test and p – significance level of the test. Statistically significant differences at $p < 0.01$ were marked with a double asterisk (**).

Table 2-1 Ratings received by Student 1 after two and four years of CS enhanced EFL instruction in terms of content comprehension (CC) and pronunciation accuracy (PA) of language samples on audio and video recordings.

Tested parameters	Descriptive statistics		Student's t test for dependent samples	
	M	SD	t	p
Audio rec – CC/year 2	6.17	1.03	-11.458	0.000 **
Audio rec – CC/year 4	7.98	1.27		
Audio rec – PA/year 2	4.75	1.08	-11.108	0.000 **
Audio rec – PA/year 4	7.00	1.66		
Video rec – CC/year 2	6.52	0.95	-12.070	0.000 **
Video rec – CC/year 4	8.40	1.20		
Video rec – PA/year 2	5.02	0.95	-12.709	0.000 **
Video rec – PA/year 4	7.63	1.35		

The mean average of ratings received by Student 1 in terms of content comprehension of language samples on audio recordings increased from 6.17 for the recording captured after two years of CS enhanced EFL instruction to 7.98 for the recording captured after four years of CS enhanced EFL instruction. The mean average of ratings received by Student 1 in terms of pronunciation accuracy of language samples on audio recordings increased from 4.75 for the recording captured after two years of CS enhanced EFL instruction to 7.00 for the recording captured after four years of CS enhanced EFL instruction. Similarly, the comparison of ratings received by Student 1 in regard to content

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comprehension and pronunciation accuracy of language samples on video recordings captured after two and four years of CS enhanced EFL instruction revealed an increase from 6.52 to 8.40 and from 5.02 to 7.63 respectively. This improvement is highly statistically significant (p < 0.01).

Table 2-2 Ratings received by Student 2 after two and four years of CS enhanced EFL instruction in terms of content comprehension (CC) and pronunciation accuracy (PA) of language samples on audio and video recordings.

Tested parameters	Descriptive statistics		Student's t test for dependent samples	
	M	SD	t	p
Audio rec – CC/year 2	4.80	1.02	-8.097	0.000 **
Audio rec – CC/year 4	6.48	1.56		
Audio rec – PA/year 2	3.22	0.99	-8.682	0.000 **
Audio rec – PA/year 4	5.03	1.68		
Video rec – CC/year 2	6.27	1.02	-9.002	0.000 **
Video rec – CC/year 4	7.88	1.26		
Video rec – PA/year 2	4.27	1.01	-10.847	0.000 **
Video rec – PA/year 4	6.40	1.45		

The mean average of ratings received by Student 2 in terms of content comprehension of language samples on audio recordings increased from 4.80 for the recording captured after two years of CS enhanced EFL instruction to 6.48 for the recording captured after four years of CS enhanced EFL instruction. The mean average of ratings received by Student 2 in terms of pronunciation accuracy of language samples on audio recordings increased from 3.22 for the recording captured after two years of CS enhanced EFL instruction to 5.03 for the recording captured after four years of CS enhanced EFL instruction. Similarly, the comparison of ratings received by Student 2 in regard to content comprehension and pronunciation accuracy of language samples on video

recordings captured after two and four years of CS enhanced EFL instruction revealed an increase from 6.27 to 7.88 and from 4.27 to 6.40 respectively. This improvement is highly statistically significant (p < 0.01).

Table 2-3 Ratings of the two students in terms of percentages of target words correctly transcribed by the judges.

% of target words correctly transcribed	YEAR				Student's t test	
	2nd year		4th year			
	M	SD	M	SD	t	p
Student 1	75.9%	7.4%	90.5%	4.0%	-16.104	0.000 **
Student 2	56.1%	9.5%	67.9%	11.1%	-6.262	0.000 **

The recordings of Student 1 captured after two years of training scored the average rating of 75.9% of correctly transcribed target words. The recordings captured after four years scored the average rating of 90.5% of correctly transcribed target words. The following percentages of correctly transcribed target words were calculated for Student 2: recording captured after two years of CS exposure 56.1%, recording captured after four years of CS exposure 67.9%. In both cases the improvement was highly statistically significant (p < 0.01). Overall, in terms of all tested parameters both of the students received statistically significantly better ratings for the recordings captured after four years of CS enhanced EFL training than for those captured after two years.

In order to check whether there existed statistically significant differences between ratings given by listener judges who were monolingual native speakers of English, bilingual/multilingual speakers of English, and non-native speakers of English Kruskal-Wallis tests and a factorial analysis of variance (ANOVA) were conducted. The results of the statistical analyses revealed a tendency of non-native speakers of English to give significantly lower ratings in terms of content comprehension and pronunciation accuracy of speech samples captured on audio recordings and in terms of pronunciation accuracy captured on video recordings after four years of CS enhanced EFL training. There were no significant differences between other ratings. Similarly, the results of Mann-Whitney U and Student's t tests demonstrated that there were no

statistically significant differences between ratings given by male and female judges.

5.5 Discussion

The results obtained for speech intelligibility in this study are much superior to those obtained by deaf children using hearing aids reported by McGarr (1983), Monsen (1978) or Smith (1975) or those obtained by deaf children using cochlear implants in an oral communication program reported by Osberger et al. (1994). It is highly probable that the intelligibility of spontaneous language samples provided by the students would score even higher if it was assessed from the percentage of intelligible syllables by skilled transcribers rather than native and non-native listeners (Blamey, Barry, Bow et al. 2001).

High foreign language speech intelligibility scores of the subjects with severe-to-profound hearing loss in the present study may largely be attributable to the consistent use of cued speech in all segments of the foreign language instruction process. In addition, the more cued speech exposure the subjects received the higher their foreign language speech intelligibility was. In other words, as they developed their knowledge of the cued speech system, their speech production skills in English improved in correlation. Therefore, though late, cued speech exposure allowed the subjects to grasp the system and subseqently improve their phonetic awareness and their English pronunciation, as hypothesised. Moreover, it is important to note that the educational setting described in the *Background* section of this chapter correlates positively with success of a foreign language teaching/learning regimen comprising cued speech and direct instruction in the aspect of speech production.

Another possible explanation for the low correlation between severity of hearing loss and spoken foreign language performance of the subjects in the present study may be their highly intelligible speech in the national language. Since speech skills are still developing in children, it is possible that the other studies referred to here did not yet capture the full potential of their subjects.

Lower ratings in terms of pronunciation accuracy given by non-native listener judges may be linked with the fact that some foreign language learners are very concerned about correctness either because they want to identify with the target culture, or because they have a natural inclination to speak correctly.

The subjects of this study have particular characteristics that make them unique in comparison to other hearing impaired individuals. The

academic environment from which they were selected is exceptional in that it provides a favourable atmosphere for learning, communicating, and socializing. Therefore, the present study suffers from the drawback of having very circumscribed generalizability of results.

6 Conclusion and implications for further research and teaching practice

The theme of this chapter has been to examine the unique potential of cued speech in EFL instruction for D/HH university students. The four-year study was set out to examine the effect of cued speech enhanced EFL instruction on speech intelligibility scores of two highly motivated hearing impaired Polish university students. Twelve speech samples, which included oral reading, spontaneous speech, and language elicited by the researcher, were provided by the subjects and later assessed by native and non-native listener judges. Three samples from each set were captured on audio and video recordings after two years of cued speech enhanced EFL training and three after four years. Overall, in terms of content comprehension, pronunciation accuracy, and the percentages of target words correctly transcribed, both of the students received statistically significantly better ratings for the recordings captured after four years of CS enhanced EFL training than for those captured after two years.

In sum, satisfactory answers to the research questions were yielded in the study. Contrary to popular opinion, students with hearing impairments who are learning modern foreign languages and who communicate orally in their national languages are capable of developing all language elements and skills, including pronunciation and speaking. Moreover, simultaneous use of two modalities (auditory and visual) made possible by cueing, contributed significantly to the increased foreign language speech intelligibility scores of the two study participants with severe-to-profound hearing losses. Since the results of the study may not be generalizable to other groups of individuals with hearing loss, they should be replicated for other languages and larger and younger participant samples.

This research points to significant pedagogical implications. Just like hearing individuals the hearing impaired ones should be taught both receptive and productive language skills. Pronunciation practice can be integrated in communicative language work and it does not need to be boring. In terms of teaching goals, both segmental and supra-segmental features of the target language ought to be perfected on a regular basis. If learners are to make maximum use of cues for speech perception and

understanding English, cued speech must be incorporated into all segments of the foreign language instruction process. If the system is not introduced to students in a systematic fashion, they might have no incentive to expend time and effort necessary to achieve fluency. That is why cued speech use should parallel listening, speaking, and other language skills currently taught in class as well as pronunciation learning and practice.

Since confident cuers are able to better speechread both with and without cues (cf. Krakowiak & Sękowska, 1996; Ling & Clarke, 1975), it is of vital importance to create opportunities for students with hearing loss to interact with native speakers and hearing students. Such interactions provide a wider and richer language exposure and motivate D/HH second language learners to develop and utilize their speech, lipreading, audition and other communicational potential to the best of their ability.

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EXPERIENCES IN TEACHING ENGLISH TO DEAF AND SEVERELY HARD-OF-HEARING PUPILS IN NORWAY

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1 Introduction

This chapter will describe the provisions for teaching English to deaf and severely hard-of-hearing pupils in Norway and the experiences gained since the introduction of the national curriculum for the hearing impaired in 1997 (Kunnskapsdepartementet, 2013). The chapter includes a study into using British Sign Language (BSL) with primary school pupils and finally descriptions of some methods used in the teaching of English as a foreign language which include methods used in developing pupils' skills in face-to-face communication and English literacy.

We begin with some reflections on why is it such a challenge for people with a severe hearing loss to learn a foreign spoken and written language. Firstly, we know that competent sign language users can readily learn a foreign sign language, and therefore it follows that language learning ability is not necessarily directly linked to hearing loss, but more to the accessibility and modality of the foreign language. Secondly, the human ear can hear a huge range of sounds, but there is one important area where speech sounds are located. This is commonly known as "the speech banana." Diagrams illustrating this can be found on the Internet. If the ear is partially or totally unable to perceive sound within this area, it will affect that person's ability to hear and develop speech. In addition, any aural signals reaching the brain may be distorted. The lack of experience with natural language acquisition of a first spoken language (L1), will inevitably affect the acquisition and learning of a second spoken language (L2). For the majority of deaf and severely hard-of-hearing people the language that they acquire naturally, if given access to it, is a visual language i.e. sign language. Thirdly, it is accepted that it is necessary to have access to a complete language system if the learning of that language

is to progress smoothly. This is obviously not the case for deaf learners attempting to learn spoken English as a foreign language for the reasons given. Knowledge of the spoken language is considered to be the foundation for learning the written language, and it is problematic to try and separate the two. From a pedagogical viewpoint, the question is then, how to overcome the obstacles that hearing loss creates in the foreign language learning classroom.

2 Educational Provisions in Norway

Norway is a large and sparsely populated country, with a population of just over five million. There is no national register, but the number of deaf and severely hard-of-hearing (hearing impaired) children born each year is estimated to be somewhere between 20 and 30 (Grønlie, 2005; Pritchard & Zahl, 2010). In Norway, hearing impaired pupils living in urban areas can receive their education at schools and units for the deaf. The majority, however, attend their local school. About 95% of hearing impaired children have cochlear implants (CI). Wherever hearing impaired pupils go to school, they have the legal right to choose to be educated in and about sign language and become sign bilingual. This form of bilingualism includes Norwegian Sign Language and Norwegian spoken and written language (Pritchard & Zahl, 2010).

In 1997 a new national curriculum (Kunnskapsdepartementet, 2013) introduced some alternative subjects especially for the deaf and severely hard-of-hearing: Norwegian Sign Language, Norwegian for the hearing impaired, Drama & Rhythms and English for the hearing impaired. During the last revision of the curriculum in 2013, the titles were changed from "for the deaf and hard-of-hearing" to "for the hearing-impaired". This means that a larger group of hearing impaired pupils, also those with CI, also have the right to choose these subjects. Previously, choosing the alternative curriculum was related to the pupil's degree of hearing loss and it was said that pupils with CI had mild or moderate hearing losses. However, the enormous variation that exists within this group and their educational environments means that some feel that in a classroom situation they cannot hear well enough to have full access to teaching given in spoken language alone. In addition pupils may have a social and cultural attachment to the sign language milieu. Therefore the change in title means that these pupils too, can be sign bilingual.

As with all other national curricula subjects, the curricula for the hearing impaired lead to national Zexaminations and allow entrance to

higher education. All sign bilingual pupils, regardless of where they go to school, do these four subjects. Pupils are also invited to attend their state-run, regional resource centre for a maximum of twelve weeks per year where they meet with their sign bilingual peers. During these short-term stays the special subjects for the hearing impaired are in focus, and pupils experience a sign language environment.

The English curriculum for the hearing impaired aims to achieve age-appropriate English literacy and independent face-to-face communication. It also includes cultural knowledge of English-speaking deaf culture. The teaching of English can start in first grade. Teaching is adapted to meet the needs of the individual to enable the pupil to reach the goals in the curriculum. There is a huge variation amongst hearing impaired pupils: although it is estimated that at least one third have additional handicaps, there are also high achievers who have the right to develop to their maximum potential. There is also an enormous variation in pupils' functional hearing, their oral language skills, and educational experience. This means that there is no one teaching method that suits all. Therefore, pupils must have the freedom to choose a form of face-to-face communication suited to their individual needs. The aim is for pupils to be able to communicate independently in one English modality or another, without using a sign language interpreter. Pupils can choose between BSL, American Sign Language (ASL), Signed English, English speech, "chatting" using ICT or combinations of these. (Signed English is an artificially constructed use of signs to visualise English sentence structure. This can be helpful if the aim of a lesson is to familiarise pupils with English syntax, illustrate a specific aspect of English grammar or to compare the two languages: BSL and English.)

National examinations are held at the end of the 8th and 10th grades in one or other of the following three subjects: Norwegian sign language and Norwegian, Mathematics or English (Kunnskapsdepartementet, 2013). The English Exam consists of a written paper, which is an adapted version of the examination for hearing pupils, and an oral examination. Adaptations in the written exam consist of replacing slang and expressions not found in dictionaries, and the inclusion of a task about deaf culture in English speaking countries. Oral examinations are arranged according to the language choices made by individual pupils. The examiner is appointed to match the pupil's language choice. A lack of hearing must not inhibit pupils from showing their knowledge of English language, culture and literature, and their skill in communicating. It is expected that all hearing impaired pupils take the exam, unless they have learning difficulties.

Obviously, the demands on teachers to be able to teach in all modalities are challenging and pupils need good language models. However, matching the pupils' needs with the teacher's linguistic capabilities is crucial if pupils are to have access to the curriculum and to the English language. Although if teachers know how to maximise learning by using good quality teaching materials efficiently, this is also of great value and can give pupils access to good language models.

Negative attitudes sometimes exist among teachers about the use of sign language generally and especially in connection with the teaching of English; more so after the advent of CI. However, instead of taking a bombastic stand in relation to signing, the first step must be to systematically assess each pupil's actual needs. This assessment is often lacking and one is tempted to ask if we give the child the education that just happens to be available locally, or whether we indeed assess and cater for the needs of the individual. While CI gives pupils access to speech sounds, it is not always enough to give every pupil full access to spoken language and facilitate an age appropriate language development (Kermit, Mjøen & Holm, 2010). As with all other pupils, hearing impaired pupils require effective and efficient teaching at a pace that maintains their attention and motivation. Sign language can be one way of facilitating this. For many hearing-impaired pupils it is not always the educational content that needs to be specialised and changed, only the mode and method of delivery through visualisation.

If sign language is to be used in the teaching of English, the next question is which sign language to use and how. In 1997, the curriculum asked teachers to start teaching English using BSL. Funding from the European Union (EU) made the education of Norwegian teachers in BSL a feasible proposition. The advantage of BSL is that it includes mouthings borrowed from English speech that create a valuable bridge to English spoken and written language. From the late 1990s teachers from Norway attended intensive BSL courses at Bristol University, funded by the EU. EU funding also made it possible to organise pupil and teacher exchanges with schools for the Deaf in England. After several successful years the situation changed with the arrival of CI and the curriculum has since been revised. It is not always necessary to include a foreign sign language for every pupil. Therefore the curriculum has become more flexible to cater for this new, extremely heterogeneous generation. Today, for teachers and pupils wanting to learn and use BSL, there are courses readily available on the Internet, such as Sign World (http://www.signworldlearn.com). BSL courses for teachers are also held at one of the state-run resource centres at

regular intervals. The revised curriculum also makes it possible for pupils to choose to learn and be taught in ASL.

3 Results and implications of a national survey

The effect of using BSL in the classroom was investigated in a study carried out in 2004 (Pritchard, 2004). The total population of Norwegian deaf 4th graders was tested with the aim to find out if, after four years of English teaching, they could understand BSL and at what level. A standardized assessment test of BSL was used for this purpose: Assessing British Sign Language Development (Herman, Holmes & Woll, 1999). The study showed that hearing impaired sign bilingual pupils in 4th grade, who had been given access to BSL texts, did understand the language at an equivalent level to their British peers, even though their teachers often had little competence in BSL. It must be noted that in Norway parents of hearing impaired children are offered courses in Norwegian Sign Language (NSL) as soon as children are diagnosed with a hearing loss. As a result, the pupils taking part in the study in 2004 often had had access to sign language very early in their lives. This implies that they used their knowledge of NSL in the acquisition of BSL, although BSL signs that were similar in form and meaning to NSL signs were excluded from the test materials.

The results of the survey showed that the introduction of BSL had been successful. Based on these findings and the author's many years of experience, it is possible to outline some of the conditions necessary to facilitate an effective learning environment. Pupils need:

- access to a complete language in ample amounts to enable language acquisition
- to experience low stress levels in an accepting, encouraging environment where they can practise, experiment, make mistakes without ridicule and learn from them
- a willingness to work, motivated by interest in BSL-users and English speakers, and a growing feeling of competence
- self-confidence through having knowledge of and using varied communication strategies and language learning strategies
- to feel that what they learn here and now is useful and they have the opportunity to use their knowledge in practise
- conversation partners matched in language modality so that they can develop their communication skills (negotiate meaning, repair communication breakdown etc.)

- teachers who respect sign language and deaf culture.

The 4th graders in 2004 were a more homogenous group than the pupils we see today. The results of the study showed that learning BSL is one way forward, although we do not have studies to show how their English skills developed. However, we do know from examination results in 8th grade, that this group as a whole had only a very slightly lower average grade than their hearing peers.

The diverse group of deaf pupils today need English language skills they can use in the real world and opportunities to practise doing so from an early age. Some pupils cannot hear any spoken language, and some hear only certain speech sounds which may be distorted, while others may have functional hearing when assisted by technical aids in good listening conditions. However, we can conclude that their language learning needs and goals are the same as those of normally hearing pupils, but that to accommodate for the enormous variation within the group, the hearing-impaired need to be taught in a variety of different ways to reach the same goals. To help provide appropriate conditions for language learning we need to utilize eclectic methods and be ready to include varied means of communication (BSL, Signed English, spoken language assisted by technical aids and written language and ICT). It must be noted that ICT has made many things possible that previously was problematic i.e. access to BSL texts, an enormous variety of English language learning programmes and access to conversation-partners outside the classroom.

4 Recommended teaching methods

Pupils' access to English spoken language is inhibited by their hearing loss. This in turn, will probably reflect on their literacy skills. Experience shows, it is essential to compensate for this, as far as is possible, by taking the following practical measures:

- the pupil must be positioned so that he can see the teacher and the rest of the pupils in the group to enable the easy perception of sign language and speech reading
- a small group and good lighting is needed to enable the perception of sign language and speech reading
- limit background noise and provide good acoustics to aid listening
- use teaching materials that visualise information. Always consider whether video cassettes or CDs, smart board programs, computer programs, films or animations allow for speech reading, have subtitles

or signing. Remember also that it is only possible to see about one third of speech sounds on the lips and that one needs a good grasp of the language one is speech reading to understand what is being said

- check that technical aids are actually working
- hearing staff and pupils in the group must know how to communicate with the hearing-impaired pupil
- do not ask pupils to look at their book while you explain something. Hearing impaired pupils cannot look in two directions at once, so present texts using power point, smartboard
- be aware that hearing impaired pupils tire faster than you would normally expect, so vary activities during a lesson to give pupils a chance to change focus and rest their eyes
- give pupils time to think and time to practise

We know that the more associations a pupil has to a concept represented by a sign and/or a word, the more likely he is to remember it. Giving students a chance to actively use the sign or word themselves will also aid their language learning. Therefore we need to harness all the senses and make new vocabulary accessible and memorable. In addition to the auditive signal made by the spoken word, my colleagues and I use a method originally called *chaining* (Hermans, Nijmegen, Knoors, Ormel, & Verhoeven. 2008), which we have further developed. Chaining gives pupils different sensual experiences connected to a concept by the pupil:

- seeing the written word
- hearing the spoken word
- being made aware of how words look on the mouth, how they are made and how they feel within the mouth, on the throat and other parts of the face
- performing the movement of the BSL sign with the appropriate mouthing
- spelling the word using the BSL alphabet
- seeing an illustration of the BSL sign using for example *Let's Sign BSL Graphics* (Smith, 2011)
- seeing, feeling or experiencing the object/person/happening.

The order in which these sensations or links in the chain appear is not important.

4.1 Vocabulary development

A good vocabulary is thought to be an important element in being able to make oneself understood – even if the grammar is not perfect. A good

vocabulary in English face-to-face communication is, of course, the basis for the development of reading and writing. As mentioned earlier, hearing impaired Norwegian pupils choose a form of face-to-face communication that suits their personal needs.

Teaching methods for expanding vocabulary must be motivating and give adequate repetition. It is generally accepted that hearing impaired pupils miss out on a lot of incidental learning that normally takes place when overhearing others in conversation, from watching TV and so on. When hearing impaired children start to learn English in the first grade, they will probably not have had the same experience of the English language as their hearing peers. A teacher using English during lessons, and not just talking about English in L1, will give pupils much needed experience. At the same time this demands that pupils actively take part in the learning process. BSL or Signed English and other forms of visualisation of the language and subject of the lesson give the necessary input to aid perception and understanding. *Communication games* are invaluable in providing pupils with necessary practice in using new vocabulary and sentence structures: stress levels are low and motivation is high. The need to know the vocabulary so as to be able to take part in a game is much more motivating than a dictation test!

Total Physical Response (TPR) and *The Direct Method* (Larsen-Freeman, 2000) are two teaching methods that use whole language and that we have found successful. In TPR gestures and mime are used to illustrate the meaning of what is being said, for example the teacher tells a story. With hearing impaired pupils, gestures are replaced with conventional BSL signs. In the Direct Method pupils are engaged in an activity while the teacher uses English as the language of instruction. Any practical activity can be used, sometimes involving other school subjects, thus ensuring lively lessons. During lessons, pupils show their understanding by carrying out instructions and at the same time acquire new vocabulary. Both methods provide natural situations for language acquisition as opposed to a more traditional learning situation. Afterwards, teacher and pupils make a list of the new vocabulary they have acquired during the lesson – the extent of the list will often surprise everyone. By following-up the activity by writing and "talking", language is recycled providing all important repetition.

4.2 Face-to-face Communication

By introducing a sign language into English lessons, the teacher enables pupils to take part in *conversations and discussions* which otherwise they are inhibited from doing. It is essential to be able to express one's needs, feelings and opinions as stated in the Common European Framework (Council of Europe, 1996). It is through *interaction* with others that pupils can acquire new language and knowledge as well as develop communication strategies. By gradually increasing the complexity of questions and answers, by modelling and recasting, the teacher aids pupils into more and more advanced direct communicating with others. (Re-casting is a method whereby the pupil expresses herself in L1 and the teacher responds in L2, thereby giving the pupil new vocabulary and a model to follow. In this way, the conversation continues in English and is not interrupted by having to give instructions in L1.) Pupils need also to be given tasks where they do not have to use pre-learnt phrases and sentences, but actually *create new utterances* for themselves using the vocabulary they possess. This can be done for example, by asking pupils to work in pairs and exchange information.

Story telling gives access to a new kind of language as well as cultural knowledge. At the same time, it demands that pupils are active language learners. Before starting, pupils' prior knowledge of the subject of the story has to be activated in L1. What do they know about this theme? If the pupils lack necessary concepts and L1 vocabulary it can be taught now. This activity gives the pupils a framework to work within. Predicting what will happen in the story will also have a positive effect. It is also important to reassure pupils that they will not understand every sign or word of the story and that is acceptable; however, they must aim at understanding the gist. Giving a short summary of the main characters and plot in L2 is very useful in aiding understanding. Give the summary in short sentences with additional illustrations or actions, and ask pupils to repeat what you say and do to a partner. This activates all the pupils and they can clear up any misunderstandings or gain missed information. They are also using the new vocabulary they will meet in the story. Giving pupils tasks to do during the story is effective and motivating; for example find out what certain things are called in English by guessing from the context. Choose items that are repeated during the story, central to the plot or have names that are similar to L1. The actual story telling is done in BSL or Signed English and it is the teacher's job to ensure that the pupils understand the gist. Details can be followed up afterwards. If this is to be successful, the content as well as the language must be visualised using signs, pictures, body language, gestures, actions, props etc. If pupils do not understand, then the story has to be presented in another way, but still in visualised English. If teachers do not feel competent enough at story

telling in BSL or Signed English, there are many signed and subtitled texts available on the Internet or for purchase.

In aiding *comprehension* it is essential to ask questions other than what, who, where and when. Asking pupils to make inferences about what characters are thinking and feeling, why they do things and what could happen, requires pupils to use their own creative powers and experience. It also gives pupils the notion that there is not always just one correct answer to a question.

As a *follow-up* we must ensure that pupils use the newly acquired language. We can use different forms of re-telling where pupils are actively involved: role play, drama, games and quizzes motivate pupils to take part and make use of newly learned signs, words, phrases and expressions. They need to practise, revise, experiment and be creative.

4.3 The Development of English literacy

Learners need to develop many different language-learning strategies and reading strategies to achieve English literacy, and not least have some cultural knowledge.

Phonic reading skills are often not taught, abandoning pupils to remember what words look like as one of their few reading strategies. This is especially true when the L1 alphabet is identical to the English alphabet. Some EFL teachers do not believe that English reading can be taught phonetically, but this is not true. Phonetic reading skills can be of assistance in both reading new words and writing them. Pupils are taught which English speech sound a single letter represents. Sounds that pupils cannot hear must be compensated with signs, awareness of how sounds are produced and feel as described above, and the sounds' visual image on the mouth. By sounding out the letters' speech sounds, words are created. However, English has 44 speech sounds and only 26 letters in its alphabet and it follows that English spelling patterns are complex. However, by teaching the most common spelling patterns pupils gain a valuable reading and writing strategy.

Hearing impaired pupils need to know which speech sounds are similar in their L1 and English, and which are different or unique to English and how they are produced in the oral cavity and represented in writing. This can aid their confidence in pronouncing words. Based on a comparative analysis of Norwegian and English we know which English speech sounds we need to focus on. By using *all* the senses and a systematic approach to learning common English spelling patterns, deaf pupils can become

confident readers. We start with the single letters in the alphabet, teaching the sounds of the consonants and the short vowels. Then we progress to digraphs such as th, ch and sh, and then to the so-called long vowels: -ay, -ee, -igh, -ow and -oo. These speech sounds also have other spelling patterns which we add as we discover them in reading texts. Then we proceed to the remaining spelling patterns such as –ar, -air, -ear, -oy and so on. There are several graded, phonetic, reading series available that give pupils practise in using phonetic reading skills such as Song Birds (Donaldson, 2008). Phonics can be of great help in decoding words, but must go hand-in-hand with the understanding of the words' meaning. The need to encourage pupils to read many different kinds of texts cannot be underestimated

There are 25 frequently-used, small words that occur a great deal in written texts and that we traditionally ensure that pupils recognize automatically and read as *sight words*. This can be achieved by using flashcards and games. We find that this can greatly aid fluency. The small words are as follows:

the, of, and, a, to, in, you, that, it, he, for, on, not, as, with, his, they, at, be, his, do, from, I, or, but, by, have

Reading a text in a foreign language is a difficult and overwhelming task. When attacking a new text it can be beneficial to do this in stages and not expect pupils to be able to decode, understand and read aloud simultaneously (Easterbrooks & Beal-Alvarez, 2013). First, preview the theme of the text and activate prior knowledge as mentioned earlier. By using clues in pictures and the title, ask the pupils what they think the text will be about and what they know about the theme. Make a mind-map and make sure pupils have the necessary concepts and vocabulary in their L1. Then, decode the words using phonics as described above and other strategies. The next step is to find meaning. Making use of morphological knowledge is essential and often overlooked during this process. Being able to find a word's root, especially in academic vocabulary, can be an aid in understanding a word's meaning. Being able to work out the meaning of a word or expression from its context using logic is also a valuable strategy, although it must be noted that not all texts, especially simplified ones, make this possible. It is not unusual for hearing impaired pupils to be given simplified texts as the norm. Pupils need to meet texts with different levels of difficulty so that they develop a variety of comprehension strategies. At this stage, teachers need to give explicit explanations and demonstrate how they *read between the lines*. Teachers should also explain what pictures and personal associations the text creates

in their own mind as an illustration of personal reading strategies. Employ questions that demand reflection and creativity on the part of the pupil. Pupils practise reading the text and finally present the text, reading it with expression, either in English speech or in a BSL translated version. Either way, the aim of their presentation is to show that they fully understand the content of the text. Story maps or text maps are diagrams and a useful way to visualise a text's structure and content and used during and after reading.

Above all we need to encourage pupils to be critical thinkers asking themselves: "Does this make sense? If not, what can I do?" Pupils need teachers who show how reading and language learning strategies are used and then let them practise. In this way pupils can build up a repertoire of strategies they can eventually employ independently and appropriately.

To *write* in English demands a great deal of confidence, knowledge and skill. Experience shows that writing skills often develop more slowly than reading skills, and it is worth remembering that pupils will understand more English than they can express in writing. Often pupils will start by copying words or completing sentences, and then fill in missing words and gradually copy sentence structures. However, it is important to include a creative element to maintain interest and motivation. The first step is to work together and create and write a sentence and not a whole story. Start by building a sentence where the teacher models her thinking and strategies: encoding and spelling words using phonic skills and sounding out words as described above, adding adjectives and adverbs, editing, correcting grammar, spelling and syntax along the way. Afterwards pupils are asked to visualise and remember the sentence, and then write it themselves. Pupils correct their own sentences as the group goes through it together, letter by letter, word by word. This strategy is based on an idea of R. Miskin (2011), who has developed strategies for teaching early English reading and writing skills. As confidence grows, pupils can write more freely. Diagrams are a useful tool for visualising text structure and different text genre when pupils attempt to write their own texts for different purposes as stipulated in the national curriculum.

5 Conclusion

After describing the provisions for teaching English to pupils with severe hearing loss in Norway and experiences gained through research and practise, this chapter has given some examples of teaching methods. It

has underlined the need for teachers to assess the pupil's actual educational needs and address these, and not blindly adhere to one methodology. The use of BSL can be one of many possible methods. BSL has proven to be highly motivating for many pupils in developing face-to-face communication and English literacy. The chapter has also highlighted the need for a systematic teaching program for reading English including phonic reading strategies. Being able to comprehend stories readily, take part in games and conversation in the classroom, and being able to communicate with English-speaking deaf people gives pupils a feeling of mastery. Mouthings that are an integral part of BSL nouns and signs that contain English spellings both help to build a bridge to the English spoken and written language.

Today, through EU funded websites and many others, there are opportunities for hearing impaired pupils and their teachers to learn English and BSL: for example Signs2go (http://www.signs2go.eu), Signworld (http://www.signworldlearn.com), BSLZone (http://www.bslzone.co.uk/watch) and so on. They and their teachers can take part in EU funded school exchanges and language projects. Through E-twinning projects schools can find appropriate conversation partners outside the classroom. In this way pupils experience not only *teacher talk* but *native talk* in real-life situations. From experience, it is clear that taking part in EU Comenius language projects is absolutely invaluable.

Experiences in Norway have shown that given the opportunity, pupils with a severe hearing loss can and want to learn English, but the school has to adapt to the pupils' needs, not the other way around.

Notes

[1]Recommended websites and applications:
Signworld - interactive BSL course with many BSL texts, from new beginner to exam levels
BSL Zone – Varied programs for all age groups by British deaf TV makers
Signs2go - Deaf young people can learn BSL as a foreign sign language.
Oxford Owl – a website with free registration and access to E-books for early readers (http://www.oxfordowl.co.uk)
Signedstories – an application with authentic stories in English, BSL, animations and text. Reading books available.
British Sign Language – an application with 70 lessons in BSL on different everyday themes
MobilSign 2 – an application with a video dictionary of over 4000 BSL signs

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CHAPTER FOUR

MONOLINGUAL, BILINGUAL, TRILINGUAL? USING DIFFERENT LANGUAGES IN AN EFL CLASS FOR THE DEAF[1]

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1 Introduction

Newcomers to the field of deaf education have to constantly redefine their image of deafness. They quickly learn that for many deaf people the national spoken language is not equivalent to the mother tongue. Then, astonishingly, it turns out, that not all deaf people use sign language or claim to be part of a larger, deaf community. The role of the teacher is to find the golden mean in educating these students while assuring a respectful approach to all their needs. Based on the interactional interpretation of disability, it can be postulated that the elimination of communication barriers is the primary means to the successful teaching of English as a foreign language (EFL) for students with hearing loss.

This chapter describes the author's experiences of teaching and observing 24 deaf adult learners of EFL in the academic year 2013/2014 at levels ranging from beginner to intermediate. The analysis focuses on the communication strategies that were used by the students and their teacher. The results lead to the conclusion that the classroom environment can be monolingual, bilingual or trilingual, depending on the students' fluency in English, their level of hearing loss, their willingness to use speech, and their fluency in the national spoken and sign language.

People who cannot hear are probably the most heterogeneous type of students a foreign language (FL) teacher may come across. First of all, both the degree of hearing loss and the age at which it occurs or is discovered have an influence on the onset of a deaf person's first language (L1) acquisition (Dotter, 2013; Doležalová, 2013). Secondly, the parents

of deaf children may be drawn to disparate approaches to deafness, among other things to the use of different types of hearing assistive technology and the acquisition of, or complete isolation from, the national sign language in the family. Third, depending on the level of hearing loss, speech therapy may proceed differently. Besides, some children with hearing loss are born to deaf, signing parents, who start communicating meaningful messages to their child from the moment he or she is born. Others are born to hearing parents, whose L1 is the national spoken language. These variables are a far from exhaustive list of different factors that affect deaf children and their development. Krakowiak (2006) once tried to describe all the potential variables that influence the classification of people with hearing loss into different subgroups. Her analysis yielded 107 different groups. Teachers need to be aware of all these nuances due to the fact that what happens to children in the first years of their development has enormous bearing on the development of their cognitive abilities and literacy, which in turn has an influence on their educational achievement (Marschark, 2007; Mayberry, 2002).

From the perspective of a FL teacher, it appears that the deaf student's L1 is the most important factor in devising the course. Theoretically, there are two options: the deaf student's L1 is either sign language or their national spoken language. In Poland, the deaf individuals who use sign language rarely acquire it naturally from their parents. In many cases, sign language acquisition begins much later, e.g. at a special school for the deaf. Even then, children get little contact with proficient native signers, with most schools employing few or no deaf signing teachers. Wojda (2012) argues that such underdeveloped sign languages should be considered as pidgins. On the other hand, those students who primarily use the national spoken language acquire different levels of proficiency in it (cf. Domagała-Zyśk 2013). Therefore, the FL teacher may sometimes be working with an adult person who seems to have no fully-fledged signed or spoken L1, and who presents significant deficiencies in general knowledge, the lack of learning strategies and a shortage of complete cognitive concepts.

Taking all of the above arguments into consideration, it is evident that teaching deaf students constitutes an even greater challenge if it is to be done in groups and not individually. This chapter discusses the language environment created for barrier-free communication in small sized groups of deaf learners of English. Although the context of the research was a small, private language school it is hoped that the results of the study are transferable to similar situations in special schools or special support centres of higher education establishments.

2 Interactional interpretation of disability

In attempts to create effective learning environments for deaf groups, the first potential port of call for guidance comes in the form of the Convention on the Rights of Persons with Disabilities (United Nations General Assembly, 2007). Its preamble sets out:

> [D]isability is an evolving concept and (…) [it] results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others (p. 2).

In other words, disability is not a state. People experience their limitations differently, depending on the way these limitations impede their lives. Karpińska-Szaj (2013, p. 19) calls this approach an *interactional interpretation of disability*. If we translate this into the realm of deafness, the biggest problem encountered by deaf people is not that of hearing deprivation but that of (1) limited access to information and (2) limited access to barrier-free communication. For example, a deaf person who is fluent in their national spoken language and has free access to closed captioning services is not really disabled when compared to their deaf peer from another country who has no subtitling services on his or her TV channel. This is because the lack of hearing does not limit the former from appreciating an evening documentary programme (see point (1) above). Similarly, deaf sign language users are not limited by any barriers in their communication with the teacher if the teacher is a competent and fluent signer (see point (2) above). In fact, deafness probably would not be considered a disability if everyone knew sign language, similarly to the situation on Martha's Vineyard, where the unusually high deaf population brought about the development of a signing deaf and hearing community on the island (Groce, 1985).

Bearing in mind the variables described at the beginning of the chapter, if we take the interactional interpretation of disability into consideration in a FL class, then two conclusions may be drawn. First, a FL teacher must facilitate the deaf students' access to new information. Second, a FL teacher must take account of the students' linguistic needs, that is, provide instruction in the language that they most fully understand. In the case of sign language users who begin learning a FL this entails proficiency in the students' sign language. Some people may claim that hearing children acquire a FL faster if they meet native speakers who cannot communicate

with them in their L1, and thus a similar approach could benefit deaf students. This, however, is not true, as deaf students cannot acquire a spoken language naturally (Grosjean, 2008; Mayberry, 2002; Tomaszewski, 2001). Rather, they learn it explicitly. In the case of deaf students who use no sign language, the notion of comprehensible instruction may take many different forms as well since the deaf acquire different levels of spoken language proficiency. The above considerations are reflected in Article 24 of the UN Convention on the Rights of Persons with Disabilities. It lays out that the education of a deaf person must be "delivered in the most appropriate languages and modes and means of communication for the individual, and in environments which maximize academic and social development" (United Nations General Assembly 2007, p. 14).

3. Access to information and barrier-free communication in Polish EFL courses for deaf students

Deaf students' access to new information in and about the foreign language they learn is usually quite limited (Vaněk, 2011). EFL textbooks do not account for the gaps and irregularities in deaf learners' levels of general knowledge. Neither do they provide adequate visual instruction. What is more, there are no comprehensive FL grammar books recorded in national sign languages (Wilimborek, 2013). There are some dedicated EFL courses such as SignOn! (www.sign-on.eu), SignOnOne (http://acm5.com/signonone/SignOnOne.html), and Sign Media (http://www.signmedia.tv) on-line platforms, but the instruction represented there is limited to a few European sign languages and does not include Polish Sign Language (PJM).

The shortage of appropriate materials for in-class use or self-study definitely has an impact on the FL achievement of these students. Domagała-Zyśk (2013) points out that deaf students rarely achieve higher levels of English. They often start university with only A1 or A2 levels of English according to the Common European Framework of Reference for Languages, despite having attended English lessons throughout their primary and secondary education. In general, deaf students seem to need more time to learn a foreign language (Gulati, 2013; Nabiałek, 2013; Sedláčková & Fonioková, 2013).

Polish primary and secondary schools for deaf students range from mostly oralist approaches through those that use Signed Polish to those that include instruction in PJM. Mainstream primary and secondary

schools generally do not provide sign language interpreting services to their deaf students. Polish tertiary education establishments report to offer FL instruction for deaf students using different means of communication, among them spoken Polish and English (Domagała-Zyśk, 2013; Nabiałek, 2013), cued speech (Podlewska, 2013; this volume) and sign language interpreting (Domagała-Zyśk, 2013; Gulati, 2013; Nabiałek, 2013). It is difficult to assess which schools and universities use or offer interpretation in PJM and not Signed Polish as they tend to use the general term "sign language" when describing the support they offer to deaf students.

The variety of communication channels applied in deaf FL teaching raises the question whether, and to what extent, the given mode of communication used meets the students' needs. As Pritchard (2014) has pointed out: "students should be provided with what they need, not with what we happen to have." Otherwise, deaf students may never reach their full potential, not as a consequence of their abilities but due to the inadequate teaching conditions and the lack of barrier-free communication. The author shares the conviction of those who assert that the use of sign language in class should be dictated by the students' preference and their degree of bilingualism. In order to explore if this principle can be implemented in practice, the following research question has been formulated:

What types of communication modalities do students need in EFL classes designed for deaf participants?

4 Method

In the quest for an answer to the above research question, a qualitative approach was taken. The main aim of the investigation was to explore and understand the communication needs of the participating students in an EFL learning context. The study was intended to highlight certain phenomena, not to quantify them. The fieldwork, which lasted nine months, was conducted in a commercial language course set up for deaf adults. The whole course consisted of thirty-three lessons that took place once a week, each lesson lasting for sixty minutes. In total, the observation process consisted of 258 teaching hours.

The researcher acted as a teacher-observer of her own classes. All students were informed about the teacher's academic background and her intention to observe the classes and take notes describing the teaching and learning process. Participation was voluntary and anonymous; students gave their oral consent to be part of the study. The classes were conducted

in PJM, but it needs to be pointed out that the teacher is not a native signer and much of her PJM learning takes place informally, thanks to exchanges with deaf signers.

4.1 Participants

The research group consisted of 25 adults with hearing losses, who signed up for an EFL course for the deaf. Three of them joined the course during the year, but formed separate groups. One student had to drop out from the course due to a changed timetable at work, and was not included in the analysis. The remaining 24 participants were placed into seven groups consisting of a maximum of five students, and two students took part in individual, one-to-one classes. In total, nine EFL courses were opened.

Out of the 24 participants, 20 identified themselves as deaf and four as hard-of-hearing. Some students used no hearing aids; some students used hearing aids that together with the support of their residual hearing enabled them to hear speech, while others reported that their hearing aids did not enable them to distinguish speech sounds. Two individuals, who identified themselves as deaf, had cochlear implants.

Placement was carried out according to the students' level of English and their preferred communication method. The distribution of students within same level courses resulted from the participants' time preferences. The participants' level of English ranged from beginner to intermediate. The students were invited to choose between instruction in spoken Polish or in PJM. The assumption was that the students would benefit from a teaching approach that took account of their language preferences.

4.1.1 The groups

Beginners: There were three beginner students, one taking one-to-one classes, two taught as a group. All of them reported to be deaf and asked for communication in Polish.

Elementary: There were seventeen elementary students, one taking one-to-one classes, sixteen taught in four groups. All of them reported to be deaf and asked for in-class communication in PJM.

Intermediate: There were four intermediate students, taught in two groups. These participants reported to be hard-of-hearing and asked for communication in Polish.

The above data was assembled in Table 4-1.

Table 4-1 The distribution of students into courses

Level and group number	Participant number	Deaf/hard-of-hearing	Selected language of instruction
Beginner 1	P1	deaf	Polish
Beginner 2	P2	deaf	Polish
Beginner 2	P3	deaf	Polish
Elementary 1	P4	deaf	PJM
Elementary 1	P5	deaf	PJM
Elementary 1	P6	deaf	PJM
Elementary 2	P7	deaf	PJM
Elementary 2	P8	deaf	PJM
Elementary 2	P9	deaf	PJM
Elementary 3	P10	deaf	PJM
Elementary 3	P11	deaf	PJM
Elementary 3	P12	deaf	PJM
Elementary 3	P13	deaf	PJM
Elementary 3	P14	deaf	PJM
Elementary 4	P15	deaf	PJM
Elementary 4	P16	deaf	PJM
Elementary 4	P17	deaf	PJM
Elementary 4	P18	deaf	PJM
Elementary 4	P19	deaf	PJM
Elementary 5	P20	deaf	PJM
Intermediate 1	P21	hard-of-hearing	Polish
Intermediate 1	P22	hard-of-hearing	Polish

Intermediate 2	P23	hard-of-hearing	Polish
Intermediate 2	P24	hard-of-hearing	Polish

4.2 Instruments

Data collection included participant observation of classes, post-lesson reflective notes on students' problems as well as successful moments. Special attention was paid to the students indicating or the teacher noticing the communication needs of the students. Another set of data consisted of the lesson plans and the teaching aids.

4.3 Procedure

The teaching materials included both formal and informal tools. All lessons involved the use of teacher-made supplementary materials that aimed at making the instruction more visual and/or kinaesthetic. Additionally, all students were provided with the workbook of a popular course book, "English File" (Oxenden & Latham-Koenig, 2009; Oxenden, Latham-Koenig & Seligson, 2012; Oxenden, Latham-Koenig & Seligson, 2013) written for hearing students.

Observation notes were made immediately after class. The lesson plan was reviewed and notes were added regarding how the students related to the activities and whether they understood the instructions. Notes were also taken on the students' language use in class, e.g. their code switching between speech and PJM, or their problems with Polish. The teacher's reflective notes included the evaluation of the lesson, the achievement of goals, and the need for modifications. In total 125 pages of notes were collected.

In the analysis the data was read and reread several times in order to identify patterns in events and their meanings. In the following section the results of the analysis are presented using a descriptive-interpretative approach.

5 Results

During the observation process, the initial assumption that taking account of the students' declared language preferences would in itself lead to effective teaching and learning proved to be false. Though some groups

seemed to be working together easily, others were slowed down by communication difficulties. It appeared that the two main factors that influenced the success of activities were the unexpected variety of communication modes the students demonstrated in the classroom, and the differences in their level of linguistic and general knowledge.

During the analysis of the collected data, six main factors influencing in-class communication emerged: 1) the students' functional type of hearing loss; 2) their willingness to speak in Polish; 3) their fluency in Polish; 4) their desire to speak in English; 5) their proficiency in PJM; and 6) the extent of the deficits in general knowledge. This information about the individual participants is displayed in Table 4-2. Work was smoother in the groups where there was less difference between the students' needs and preferences, and was more difficult in the case of mismatches.

Table 4-2 An overview of variables influencing communication in EFL classes for the deaf

Level and group no.	Parti-cipant	Func-tionally deaf	Speech Polish	inFluent Polish	Speech English	inPJM	Deficits in general know-ledge
Beg 1	P1	+	+	+	+	-	+
Beg 2	P2	+	+	+	+	-	-
Beg 2	P3	+	+	+	+	-	-
Elem 1	P4	+	-	+	-	+	-
Elem 1	P5	-	+	+	-	+	-
Elem 1	P6	+	-	-	-	-	+
Elem 2	P7	-	+	+	-	+	-
Elem 2	P8	+	-	-	-	+	+
Elem 2	P9	+	-	+	-	+	-
Elem 3	P10	+	+	-	-	+	-
Elem 3	P11	-	+	+	-	+	-
Elem 3	P12	+	-	+	-	+	-

Elem 3	P13	+	-	-	-	+	+
Elem 3	P14	-	+	+	-	+	-
Elem 4	P15	+	+	-	-	+	+
Elem 4	P16	+	-	+	-	+	-
Elem 4	P17	+	+	-	-	+	-
Elem 4	P18	+	-	-	-	+	+
Elem 4	P19	+	-	+	-	+	-
Elem 5	P20	+	-	+	-	+	-
Inter 1	P21	-	+	+	+	-	-
Inter 1	P22	+	+	+	+	-	-
Inter 2	P23	-	+	+	+	+	-
Inter 2	P24	-	+	+	+	+	-

5.1 The functional type of hearing loss and the willingness to speak in Polish

At the beginning of the course, the participants were asked to declare their preferred communication modality and their degree of hearing loss. Rather than providing their audiological data, they used the terms "deaf" or "hard-of-hearing". The participants P21, P22, P23 and P24 declared being hard-of-hearing. The remaining participants reported to be deaf. Self-identification, however, does not necessarily match functional hearing loss. At the functional level, more than the above four participants showed the features of hard-of-hearing persons (P5, P7, P11, P14) in the sense that they were able to use their residual hearing to an extent that allowed them to use spoken Polish as their main means of communication also at the receptive level.

The three participants from group Elem 1 declared being deaf and using PJM for communication. However, P5 functionally behaved as a hard-of-hearing person. She used comprehensible speech, read lips fluently and preferred to answer questions in speech rather than in sign

language. This frustrated P4 and led to situations in which group work was very difficult, because in such cases P4 would open her workbook and start filling the exercises, thus breaking eye contact with all the people in the room. Similarly, the three participants from group Elem 2 declared being deaf and using PJM for communication, but P7 had a tendency to speak in Polish, even though P8 and P9 could not hear her. Finally, in group Elem 3, the five participants declared being deaf and using PJM for communication, but P11 and P14 primarily communicated in speech, so any signing on their part resulted in Signed Polish rather than PJM. Sometimes they did not sign at all.

By contrast, in group Inter 1 both participants declared being hard-of-hearing and using speech for communication. At the functional level though, P22 showed the features of a deaf person. He only used lipreading while communicating rather than any residual hearing. He could not lipread English, so every English phrase had to be written down for him and his speech was difficult to understand. Since the two students did not want to communicate in writing, pair work was practically impossible.

5.2 Fluency in Polish and in PJM

In the context of this study, the term *fluency in Polish* is understood as the semantic and reading comprehension of written Polish of the students. Some students could not understand the meaning of Polish words in their English-Polish glossaries and/or they could not make out anything from the simplified grammar definitions written in Polish for revision purposes.

In group Elem 2, consisting of three PJM users, P8 was not fluent in Polish. As a result, any grammar explanations provided in writing were difficult for her to grasp. While P7 and P9 did not require further explanation of Polish notes, P8 kept on asking new questions about the meaning of the definitions.

Throughout the course of the year, it turned out that P6 from group Elem 1 had no solid L1 base. Her Polish competence was very low. Her signing competence was also limited. She tended to mix fingerspelling handshapes and could not follow fast signing. It is possible that her initial declaration concerning the level of PJM resulted from the fact that she simply wanted to socialise with other deaf people thanks to this course. In communication, she tried to use speech together with signing, but her spoken Polish was often unintelligible to the hearing teacher and impossible to lipread for the group mates.

5.3 Desire to speak in English

P1, who attended individual classes, had the goal of learning spoken English. Therefore, at the beginning of the course most of the lessons were filled with transcription and speaking practice. Although the student was satisfied, it was very difficult to move towards the productive use of English from there.

The participants from groups Elem 1, 2, 3, 4 and 5, in turn, declared no desire to speak in English. The teacher respected this decision, thus teaching neither pronunciation nor phonetic transcription in those groups. Throughout the course, however, P11 often asked how to pronounce a given word, which was of little interest to the rest of the group. Similarly, P15 and P17 sometimes asked the teacher to give the pronunciation of vocabulary items, even though they did not want to speak in English and the rest of the group did not even use spoken Polish.

5.4 Deficits in general knowledge

In one-to-one classes for P1, instances of significant problems resulting from deficits in general knowledge and the lack of learning strategies were observed. The student needed a calculator to do the sums in the 0-20 range while practicing English numbers. She did not know where to locate certain continents and major European countries on the map. On one occasion, P1 was asked to write down a brief grammar explanation concerning articles. She did it and claimed that she understood everything. However, just to make sure, the teacher asked about the meaning of words *vowel*, *noun* and *singular*, as grammatical categories tend to pose difficulties not only to deaf students. P1 did not know what they meant and, contrary to her statement, she had not understood the definition.

P15 and P18 from group Elem 4 often could not understand the grammatical concepts that their peers easily grasped and applied in writing. They often needed individual, much simpler, visual explanations of the phenomena such as the process of inversion occurring in question formation. They also had problems with general knowledge. When asked to assign simple adjectives to proper names such as Ferrari, Mount Everest or Bill Gates, they could not do it because they did not know what those names stood for. The rest of the group did not have such problems though.

In group Elem 1, P6 also demonstrated deficits in general knowledge and learning strategies. In her reading comprehension exercises, she frequently selected answers at random, without referring to the text at all,

despite having a translation of the text both in Polish and Polish Sign Language. Moreover, it was difficult to apply any transfer of knowledge. For example, the difference between the use of the articles *a* and *an* is only possible to explain if the student knows the difference between vowels and consonants.

5.5 Communication between the students

All the elementary level students declared their preference for communication in PJM and required the teacher to use sign language for instruction, even though they themselves sometimes used spoken Polish. The author once asked a student why it was that she expected the teacher to use sign language, but at the same time she did not sign in the presence of her peers. The student said that she sometimes did not even notice that she was not signing to the teacher. On the other hand, when the students were purposefully assigned to peer teaching activities, they always used sign language. It seems as if for some students who used speech combined with signing, the presence of a hearing teacher stimulated the use of speech.

All the signing students showed a preference for an individual approach. Instead of checking their homework together, as a group, they wanted the teacher to mark all exercises. When we were checking an exercise together, it was difficult to co-ordinate eye contact. A student could be signing an answer when another student tried to peep into his or her notebook. At this point part of the message would always be lost. P8 often became lost in such a way. When some word was being explained, P8 was often looking another way or not paying attention, only to ask for the explanation of the particular word a moment later.

It can be stated that in general the groups hardly ever behaved as groups, and instead expected an individual approach from the teacher and forgot about the special communication needs of their peers. P21 from group Inter 1 had a tendency to cover her mouth while speaking, turn her face towards her notebook, keep little eye contact and enunciate words indistinctly. As a consequence, P22 from her group could not make out those parts of the lesson when pair work was expected. Whenever incomprehension occurred, both P21 and P22 had a tendency to *switch off* very easily. Similarly, although the students in group Inter 2 were well matched, they also tended to cover their mouths or speak very quietly. P4, P9, P12, P16, and P19 were, in turn, the most considerate and focused students, as far as eye contact co-ordination was concerned. They all

shared the features of being profoundly deaf and not using speech, which may explain why their visual attention was much more focused.

The participants who shared similar communication needs worked more smoothly. P2 and P3 from group Beg 2, who both declared being deaf, were an example of such a match. They both had cochlear implants and although distorted, their speech was mutually comprehensible. Both were proficient users of Polish and both wanted to practice spoken English. There were no significant gaps in their knowledge apart from those typically resulting from their hearing loss. For example, they were sometimes unable to recognize a Polish word, but had its concept in mind, so they could understand it after getting a paraphrase. They established a good rapport from the start and, at the same time, started competing in a friendly way. P3 was a very diligent student, who memorized all of the new words and grammar rules. This was very motivating for P2, who did not want to stand out. This does not mean that they did not require any extra support though. For instance, they had problems with the reception of context-free sounds and words. They needed dedicated help, as compared to the hearing population, but they did not require individual support within the small group that they formed.

6 Discussion and conclusions

The starting point to this chapter was the assumption that the teacher should adapt to the deaf student in terms of communication modality. This led to the forwarding of the research question: What types of communication modalities do students need in EFL classes designed for deaf participants? The students in the study proved to use more varied communication methods than initially assumed. It was not enough to divide them into speaking versus signing groups. The communication modalities represented by the participants constituted a continuum rather than a clear-cut division. They ranged from a signing mode (PJM), through different degrees of speech and signing (spoken Polish and English combined with PJM and/or Signed Polish), up to spoken communication (Polish and English). Moreover, the participants' fluency in written Polish also varied. This should specifically be accounted for in beginner and elementary groups because the lesson cannot be conducted solely in English in these cases.

After the analysis of the factors influencing class communication, it transpired that they tied in with the interactional hypothesis of disability. Whenever the students did not share the said variables, the group

composition abused either the students' right to unlimited access to information or their right to unlimited access to barrier-free communication. When the teacher tried to provide the whole group with said rights, despite the differences among group members, it always led to wasting somebody's time. For example, in group Elem1, P6 had significant problems with general knowledge. Not considering this would result in impinging on the student's right to unlimited access to information. Therefore, the teacher tried to explain all of the unknown concepts and ideas to the student. As a result, the group mates, P4 and P5 were bored and had to be given extra exercises. In effect, they were forced to bear the cost of somebody else's problems. Another example, P5 liked to use spoken Polish whenever the teacher asked questions to the group. This infringed on other students' right to unlimited access to barrier-free communication, as they could not hear P5's response. As a result, the teacher had to interpret the student's words to the rest of the group, which in turn was not time-efficient. By contrast, P2 and P3 as well as P23 and P24 actually did attend the groups that incidentally took account of all of the students' communication needs and the teacher's observations demonstrated good co-operation in those two groups together with a good pace of instruction. This was very important because such well-matched students could proceed at their own pace, rather than slowing down to the degree of boredom or having to rush in order to catch up with the rest of the group. It should be remembered that the students had paid for their classes and expected the learning conditions to be most convenient for them.

Further to this, well-matched groups, where deaf students do not feel vulnerable, are a place where the teacher's demands may be high and rigorous enough to bring about high levels of proficiency in English. The current state of affairs is unsatisfactory. The costs of running special education establishments and special support centres at tertiary education establishments are high, and yet, the level of education offered there is often low. High quality education is not only a student's right; it is also the most financially viable investment any state can make. The cost of supporting citizens who demonstrate little critical and logical thinking, no reading comprehension skills and not much interest in lifelong learning, is tremendous. Such citizens are more vulnerable to being taken advantage of and have problems finding jobs on the labour market. Deaf students clearly require effective teaching methods and getting the best professionals to help them develop their full potential. Only this can lead to high performance and satisfactory progress of each individual.

It must be acknowledged that this study is not without limitations. Given the fact that the participants were fee paying students, the

observation process had to be purposefully non-intrusive though it is understood that a video recording can capture more, and also more objective details than the teacher's notes and post lesson reflections. However, making regular, multi-camera video recordings of classes is very difficult to arrange from the technical point of view and virtually impossible without having a sponsor. The study includes little data triangulation though the analysis would gain more credibility if the participants were interviewed at the end of the course and their opinions were confronted with the author's observations. This is a possible future direction to take if circumstances permit. It would also be interesting to perform an actual experimental study controlling the different postulated communication modalities.

Providing a pleasant learning environment for students with hearing losses is a demanding task that involves creativity and a lot of empathy on the part of the teacher. When approaching the teacher, the student should not feel uncomfortable about admitting that she or he does not understand something due to deficits in general knowledge. Apart from that, the student must feel that their deafness is accepted rather than tolerated by the teacher and that his or her preferred communication method is respected. Responding to students' communication needs is the primary requirement in preparing a motivating class environment where the student feels comfortable and safe. A full and robust language policy in the classroom would provide deaf students with their rights stipulated in the UN Convention on the Rights of Persons with Disabilities (UN General Assembly 2007). As long as teachers account for the students' communication strategies and their level of knowledge, the students will be "provided with what they need, and not with what we happen to have" (Pritchard, 2014).

Notes
[1] Throughout the chapter, the author used the umbrella term "deaf" to denote individuals with different degrees of hearing loss (cf. Marschark, 2007). However, the Method and Results sections involve the distinction "deaf" and "hard-of-hearing" as reported by the participants in order to respect their self-identification.

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CHAPTER FIVE

FOREIGN LANGUAGE TEACHERS AT SCHOOLS FOR DEAF AND HARD-OF-HEARING STUDENTS

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1 Introduction

After Hungary signed the UN Convention on the Rights of Persons with Disabilities in 2007 (United Nations, 2007), it was not possible to further ignore the demands of the Hungarian Deaf community for barrier-free access to information and education. When the Hungarian Parliament passed Act 125 on Hungarian Sign Language and Hungarian Sign Language use in November, 2009, it turned the page to a new chapter in the history of an approximately 60.000-strong and extremely disadvantaged minority. The new law acknowledges Hungarian Sign Language (HSL) as the natural first language of the Hungarian Deaf community and grants them the right to use it in all spheres of life. It also grants children the right to learn Hungarian Sign Language and be educated in it as well as in spoken Hungarian at schools. It was around this time that a group of applied linguists at Eötvös Loránd University in Budapest realized that barrier free access to education should include the provision of foreign languages, as well; however, there was no information available on methods, materials or teacher training at all. This realization led to the launch of the Equal Rights in Foreign Language Education 2006-2010 project collecting questionnaire and interview data from adult participants on the foreign language situation of Deaf and hard-of-hearing persons (Bajkó & Kontra, 2008; Kontra, 2013; Kontra & Csizér, 2013). This was followed up by a second project investigating the foreign language teaching and learning situation at educational institutions for Deaf and severely hard-of-hearing (D/HH) learners nationwide in 2012-2015[1]. The data presented in this study come from the teacher participants involved in this second project.

2 Deaf education in Hungary

There are seven residential primary schools across Hungary originally founded for accommodating hearing impaired learners (one in the capital and six in the provinces). Apart from these, in Budapest, there is a separate school for the hard-of-hearing and one vocational secondary school (grades 9-12) with designated classes for D/HH learners. Nevertheless, due to the fact that there is a strong tendency to integrate learners with special educational needs in mainstream education (especially those children who have better residual hearing), the number of students attending these specialized institutions has significantly dropped in the last few years. As a result, schools for D/HH children have opened their doors to learners with a wide variety of special needs, such as speech problems, dysphasia, or milder cases of mental retardation and may even place them in the same study groups if there are not enough hearing impaired learners to fill a class. In line with current regulations, the teaching of foreign languages is compulsory in these schools (Nemzeti alaptanterv [National Core Curriculum], 2011), with the details of adjusting the curriculum to the special needs of the learners being left up to individual institutions and language teachers (EMMI, 2012). Generally, we can say that teachers and principals find it important to provide learners with access to foreign language (FL) education. Typically, FL instruction begins in grade 5 in most of the abovementioned schools. It is important to note that in grades 5-9, waivers are only given in exceptional cases; hence, most students in these institutions study a FL, which is usually English or German.

The context of the presented research, Hungary, is one of several countries where the oralist approach has dominated Deaf education for more than a century now and has exerted a long-lasting impact on the life of Deaf people. As a result of the Milan congress in 1880, Deaf education underwent a sharp and painful decline in Hungary: the use of sign language was banned and Deaf teachers were dismissed from schools (Vasák, 2005; Bartha, 2005). The current official curriculum for Deaf schools advocates the auditory-verbal approach (Csuhai, Henger, Mongyi, & Perlusz, 2009), which consistently refers to spoken Hungarian as *the mother tongue* of the students and the curriculum introduces HSL only as an elective subject in grade 7 for the purpose of *social interaction* but not as a means of information transfer or as the medium of education. There is no early furtherance of sign language for Deaf children of hearing parents. Children who grow up in hearing families –and they constitute the

majority– usually pick up HSL from their peers in kindergarten or at school. Primary school education starts via spoken Hungarian. This is supposed to change with the introduction of bilingual education, the circumstances for which must be ensured by 2017 according to Act 125 on HSL.

At present, teachers working at schools for the hearing impaired are generally not required to know HSL, and although they inevitably acquire some HSL from the students on the job, only a few of them are proficient enough to conduct their classes in it. Furthermore, there are conflicting views as to what language should be chosen as the medium of teaching and what language should be used as reference point for the student to understand the system of the FL, which for them is in fact a third language (L3) (Dotter, 2008).

3 The research project

The research project entitled as "The foreign language learning motivation, beliefs and strategies of Deaf and severely hard-of-hearing learners"[2] is a 3-year exploratory research endeavour including fieldwork at each of the special institutions for hearing impaired learners. Between 2012 and 2014 each school was visited and foreign language lessons were observed. The observations were followed by interviews with the language teachers, but in order to obtain a wider picture of the context, school principals or vice principals, in one case a section head, as well as an itinerary teacher were also interviewed. Questionnaire data were collected from 105 D/HH students but due to missing data only 96 could be included in the final analysis. Out of the 96 students 41 identified themselves as Deaf and 54 as hard-of-hearing (one data missing), and 78 (81%) claimed to be using HSL with their peers. Following the written data collection, 31 individual interviews were conducted with language learners from grades 7-11.

This chapter presents the results of the interviews conducted with the teachers and school heads. The results we present here lend insight into the language teachers' perspective of what they see as the aims, challenges and successes of foreign language teaching for D/HH learners. The thick description of the data will hopefully lead to an in depth understanding of the challenges these teachers face and their needs that require the assistance of the wider language teaching profession. We hope that our findings will provide useful information for decision-makers working on developing foreign language curricula for the hearing impaired and also

for those foreign language teachers who are working with D/HH learners in similar contexts.

4 Method

In the teacher interviews part of our project, our goal was to explore what characterizes current practice in teaching foreign languages to D/HH learners in special schools as regards aims, challenges, and successes.

4.1 Participants

All together ten foreign language teachers (T), a section head (SH), and seven principals (P) or vice principals (VP) were interviewed about the FL situation at their respective schools. Except for two language teachers and three principals, all participants were female. The language teachers differed greatly in terms of their language teaching experience (ranging from 3 to more than 20 years) and their educational background. Out of the ten –one German and nine English– teachers, seven had some kind of qualification to teach a foreign language, six of them had degrees in special needs education, and three of the latter group have obtained qualifications in both fields.

4.2 Instrument

Since our aim was to explore the foreign language teaching situation at the visited schools, we chose the semi structured interview format for collecting data from our participants. We wanted to find out about language teaching goals, the problems teachers face and the positive encounters teachers in special schools for the hearing impaired have, but we did not intend to restrict our informants in any way: we were interested in any relevant issue that the participants considered important to talk about. The questions comprising the instrument were directed at the following issues: language teaching goals in institutions for the D/HH; policy and practice of issuing waivers of the FL requirement; attainable proficiency levels; experiences of success; obstacles; ideas for improving language teaching in specialized institutions; the description of an average lesson; the use of HSL during language lessons. (For the interview schedule see the Appendix.)

4.3 Procedure

After obtaining consent and arranging the time and place for the interviews, the participants were assured of complete anonymity and that the information they give would only be used for research purposes. Each of the interviews took place on the respective school's premises in a vacant classroom, the teachers' lounge or a quiet office. The participants' answers to the interview questions were audio recorded. Each interview took approximately one hour. The recordings were then transcribed and sent back to the participants for member check.

Once all transcripts had been finalized, the texts were subjected to content analysis using the qualitative data analysis software, MAXQDA. With the help of the program, the texts were unitized and coded according to the emerging themes. In compliance with qualitative content analysis guidelines (Schreier, 2012), after having coded all the texts, merged small categories, and split those that included an unmanageable number of coded segments, a coding scheme was drawn up. Two of the researchers acting as co-coders then went through the dataset and finalized the coding of the texts.

5 Results

The 18 interviews comprised 1051 coded segments. We present here data that were relevant to the research question of the present chapter, in other words, those focusing on the aims of language learning in case of D/HH learners, challenges teachers face in teaching this special group of learners, and the successes they have experienced. We also include their views on modality, that is whether they rely primarily on the written modality in their teaching, what importance they attribute to the use of spoken language, and to what extent, if at all, they incorporate HSL in their work. The relevant data was grouped into 12 large categories altogether, which were further subdivided into more specific ones. When reporting our findings, we quote the participants' words in our own translation, and identify the source of the data in brackets

It is interesting to note that based on the teachers' accounts it seems that they all came to work with D/HH children by chance. Nevertheless, from the interviews it is clear that they are highly dedicated to their work, they seem to have a shared understanding of the goals of language

teaching for D/HH children, and in spite of the challenges they face every day, they also experience success in language teaching.

5.1 Language learning goals

One of the major themes in our data was that of defining language learning goals for D/HH learners; whether it is possible to set realistic aims in FL education for learners who have an underdeveloped knowledge of HSL and struggle with the acquisition of spoken Hungarian whose grammatical structure is not comparable to either English or German. The most frequently emphasized aims included the necessity to cater for individual learner needs and the importance of students to acquire the foreign language for the purpose of participating in basic communication. Alongside this, it was also highlighted that the primary goal is to enable learners to participate in written communication using the foreign language and to provide learners with a positive learning experience.

First of all, both language teachers as well as heads of schools seem to agree that language learning goals must be adjusted to learners' individual needs by adapting the curriculum either to specific groups or even to specific learners:

> Well, in our case the National Curriculum also applies, as to everyone else. We have lowered the expectations somewhat regarding English as a Foreign Language, and tried to leave the possibility open to assess development in individual learners. (P2/59)

This notion seems to be in line with SNE principles, where generally there is an emphasis on working with individual students to develop their skills at the student's particular pace (Corbett & Norwich, 1999). In connection with language learning, from the interviews it was clear that the heads of institutions as well as instructors uphold this view. On the institutional level, this is apparent as they try to keep class sizes small, and at the classroom level teachers try to accommodate the particular (additional) disabilities D/HH learners have and bring out the best in each child whether they are exceptionally bright learners or learners who need significantly more support:

> [language learning goals] depend on the individual. For example, it would be nice for M. to continue learning English because she's going on to study in high school, and perhaps she can take the Matura exam in the end, because she could. For learners who find language learning more difficult, the goal for them is to become familiar with the language and be able to

deal with situations that come up when travelling, so they can read basic signs at the airport, or in the hotel, or fill in forms… (FT7/146)

Almost all teachers also mentioned the importance of meeting learners' basic foreign language communicative needs with respect to teaching English/German as a foreign language. These primarily included learning to use the foreign language for basic communicative functions including being able to express their own needs in a foreign language, especially while travelling abroad:

> AT1: so that in English they learn the basics, a bare minimum, and so that they can communicate in writing.
> I: What do you mean by basics?
> AT1: So that they can get by using the foreign language. So they can make themselves understood in writing, and if they travel abroad, they can ask for directions, or they can simply buy a loaf of bread. (AT1/33-35)

This is closely tied to the description of A1-A2 level of language proficiency as described in the Common European Framework of Reference (Council of Europe, 2001), which was also mentioned by several teachers as a reference point when formulating language learning goals for D/HH students. Something very similar is echoed by one of the headmasters as he says the following:

> What we can set as goals, something that does not appear in our pedagogical program [...] are basic expressions to introduce themselves, basic phrases, everyday expressions. I myself am learning English at the moment, so I have an idea how to start learning English. So, I think by grade 8 or by the time they graduate from vocational school, they can reach a level where they are able to introduce themselves, ask questions, ask for directions, name objects, things like that. (VP2/74-79

Teachers and headmasters alike highlighted the idea that written communication, as opposed to oral communication, should be an attainable goal in language learning:

> In my opinion the goal can definitely be, if not learning to speak, since many of them have difficulties in speaking, but definitely to learn how to read and write, so reading comprehension, writing letters, communicating in writing, so these are what we can set as goals. (HT9/104)

Alongside learning to use the foreign language for communicative functions, teachers mentioned other pedagogical aspects of language

teaching: 'opening up the world' for the learners through language learning, motivating learners, and ultimately leading them to success in connection with the foreign language they are learning. As one teacher says:

> [f]or me, the goal is […] to open up the world for them a little, here in primary school the goal is to familiarize learners with a foreign language, so that they learn that there are other people in the world besides Hungarians, with different cultures, to give them motivation to learn more about them. (GT8/53)

In the vocational secondary school with specialized classes for D/HH students, taking the final examination in a foreign language is also an important goal to strive for. Generally, for those particular students who intend to continue their studies in higher education obtaining a foreign language certificate is one of the priorities. As seen in earlier studies, those who successfully pass a language exam are proud of their achievement and are highly respected by the Deaf community, while those D/HH adults who did not pursue learning a foreign language often regret it in the long run (Kontráné Hegybíró, 2010).

Besides the above, teachers also made a few references to goals less closely tied to language learning in particular, such as developing general intelligence, improving memorization skills, and enhancing learner autonomy. Overall, it can be said that education specialists (language teachers as well as heads of institutions) agree that foreign language teaching in schools for D/HH learners must aim to equip learners with language knowledge that allows them to take part in written foreign language communication at the basic level while considering individual learner needs and also stressing the importance of positive language learning experience in the classroom.

5.2 Challenges

Although language teaching goals are most often well formulated, working towards them poses many challenges for those involved in foreign language education for D/HH persons. One of the basic issues mentioned the most often in the interviews is the lack of materials available for language teachers of D/HH learners. In order to cater for learners' needs, all teachers spend a lot of time and invest a lot of energy into adapting language learning materials originally created for hearing learners or even creating their own from scratch:

... language course books are inadequate. Whatever there is though, for example what we are using in tenth grade, if we did use it, but we don't, since it's an alphabet book, so it's impossible to use. We take small parts from it, but other than that, no. It's for little kids. So there aren't any, or at least I don't know of any, or there are only a few books that are for older learners but [present the material] at a slower pace. There aren't any like this. And, this is what we need. Another thing is that the needs of the students are so varied, so it's practically impossible to take a course pack that suits everybody. Every teacher, for every subject, including English, has to compile these materials for themselves. So, what we could benefit from is actually fewer teaching hours so that we could prepare these materials. (DT5/187)

The target audience of the course books available on the market is generally not D/HH language learners but their hearing peers:

The reason why it's difficult to teach hearing impaired learners is that there aren't any materials. For hearing students we have materials, course books, but I have fabricated everything myself, I compiled, cut out from books, that's how. (CT4/36-37)

Even if the teacher manages to find a suitable course book, they can easily run up against current regulations which specify what course books can be used in state schools: "The book that I started using and grew to like, I just saw that they took it off the official list of course books that can be used in state schools" (ET6/257).

The lack of materials available for language teachers teaching D/HH students seems to go hand in hand with the lack of a well-established approach of teaching foreign languages to this special group of learners:

Actually, the methodology is virtually non-existent. I couldn't find anything on the internet, I asked for help from English language teachers who had taught hearing impaired students before, and so I also had to develop my own technique with which teaching can be more efficient. (IT10/101)

From the participants' responses, a few key ideas emerged as to what this teaching method should entail. Out of these the most important ones included a generally slower pace and the importance of repetition and memory training as a way of scaffolding: "My biggest problem is that they forget very quickly. So, for example, these 8th graders are considered to be relatively bright, but even then, since there is no constant

practice, they forget" (ET6/139). So, "if they don't practice, so hearing impaired learners are like if they don't practice every day, they forget" (CT4/121). This is in line with international studies (Cawthorn & Chambers, 1993) as well as Hungarian Deaf adult language learner accounts (Kontráné Hegybíró, 2010) which stress that D/HH learners would benefit substantially from slower paced instruction, improving memory skills, and using teaching material that is adequate for their age-group.

The lack of an elaborate approach to teaching foreign languages to D/HH learners is further encumbered with the difficulty of communication and the unavailability of advanced technology in the specialized institutions to enhance that communication. As most of the language teachers cannot use HSL fluently, teaching the foreign language is mainly done through spoken and written Hungarian, which unfortunately not all students can follow. It is interesting to note, that for this latter reason, some students are even given waivers:

> The two other kids, because they find it difficult to cope with Hungarian, so they don't know Hungarian and because of this there is no way to get English into their heads. So, even if they learn it, they forget it, and the problem is that they don't even know it in Hungarian, so for example breakfast, lunch, and dinner, they don't even know in Hungarian, let alone in English. (AT1/56)

On the other hand, there were two teachers who described special cases of students whose English was better than their Hungarian:

> In his case what happened was that he understood things better in English than in Hungarian. He didn't speak at all, he was hearing impaired with severe dysphasia, but information technology and English he was very good at. (P3/167)

Although this is an exceptional situation, generally, in order to narrow the communication gap, all teachers feel that learning HSL would assist them in their work with D/HH students. Some teachers have gone as far as taking a course in HSL, while others have picked up basic signs from their students. Yet others try and communicate with "hands and feet" and by relying on one of the better hearing students as an interpreter. As a result, as one of the respondents bluntly stated, if that particular leaner is absent from class, the teacher is basically "dead meat" (ET6/278-281).

Teachers often use visuals and writing on the board to ease communication with D/HH learners. However, it was also mentioned to slow the lesson down:

> I have to prepare a lot for the lessons because instead of speaking we write. Instead of pronunciation, we write. And if I don't have time [in advance], then this happens during the lesson, I write on the board, sometimes three times as much as I would say. (DT5/163)

In a few schools, interactive whiteboards have been installed, which could compensate for the teacher always having to write everything on the board in class and could further enhance communication through the visual channel. Nevertheless, it seems that in most institutions teachers are not provided with methodological training as to how to use these devices, which again poses a challenge in everyday teaching as we can see from the following interview excerpt:

> DT5: I don't know which rooms will have them , but in grade 8 and 10 I think.
> I: Will there be workshops on how to use interactive whiteboards for language teaching? Or will everybody figure it out for themselves?
> DT5: I think so. 'X., show us how the interactive whiteboard works', something like that. I don't know.
> I: I don't mean the technical part, but teaching methodology-wise.
> DT5: No, I don't think we'll get anything like that.
> I: You don't think so.
> DT5: Maybe, if we try to find something for ourselves, then yes."
> (DT5/173-179)

By learning to use such devices in their everyday work, teachers could easily cater for individual language learning needs. Furthermore, appropriately integrated into a foreign language teaching methodology for D/HH learners, the use of interactive whiteboards in the classroom could save valuable time for the teachers as they would not have to write everything on the blackboard (as one of the teachers pointed out above): Among others, pictures and videos could be brought in to ease communication with the students at the click of a button. On the whole, it seems that a lot of potential lies in using modern technology to assist D/HH persons in foreign language learning (cf. Hilzensauer & Skant, 2008).

In an earlier study conducted among adult Hungarians several participants emphasized patience as an essential characteristic for someone who wants to teach Deaf learners, suggesting that if someone cannot be patient, they should not attempt to teach D/HH students. It turns out that the teachers are equally aware of this need:

the most important thing is maybe patience. [...] Patience. I think that in a class, in any class, I think patience. That I say something ten times, they understand, I ask for the eleventh time, and as if I was asking something completely new. And it starts all over again. So I think patience is the most important. (BT2/171-176)

An additional challenge each participating teacher mentioned is working in relative isolation. Since each residential school covers a different region of the country and employing a single language teacher is normally sufficient to cover all the language lessons in D/HH classes, in a school, most language teachers feel extremely isolated. Teachers of hearing students have different problems and different needs so four our participants there is no other language teacher to exchange ideas or share materials with. The unfortunate lack of professional forums and community was voiced by most teachers. As one participant laments,

I don't get any feedback. I miss this, and this is because I'm alone here. There are only a few lessons to cover, so they will not take on another English language teacher. I've been to three of the Oxford's trainings, I think one was during the summer, I don't know how much you know about these. [...] And I didn't really feel it to be so useful, so it was good for me because I could practice my English a little and I got one or two ideas for task types, but a special workshop would have been nice, but there wasn't one." (GT8/120)

From this and other similar accounts, it is clear that not only is there no methodology to follow and no special materials developed for D/HH learners, language teachers have to do their job without opportunities for cooperation and sharing ideas with regard to teaching foreign languages to D/HH learners.

5.3 Successes

Generally, we can say that teachers view their learners' motivated behaviour as a positive outcome of language learning. As one of the goals articulated by language teachers was to motivate learners and raise learners' interest towards the foreign language they are learning, it is not surprising that achieving this goal is viewed as success. Teachers provided us with accounts of learners using English in- and outside the classroom; asking the meaning of unknown words they have encountered during free time activities; writing in English while using Facebook, email, or online forums; and using online dictionaries to look up the meaning of words.

Teachers clearly see signs of students' positive learning experiences and advancement:

> There are more and more students getting A's, they are more and more interested. Sometimes it happens that they greet me by saying 'good morning' in English in the corridor, so they really try, and I think I would definitely call this success. (AT1/64)

Corresponding to setting individual goals and overcoming individual hurdles, teachers also recalled specific individual success stories of learners who seem to be/have been exceptional in their talent, diligence, and openness to learning a foreign language:

> One of our students travelled to Brussels as part of a prize she had won to visit the European Parliament. She said that she understood the signs at the airport, and many other things. And this is a good thing. It makes you say wow, there are so many things that we can teach our students. This is great. Yes. (FT7/202)

Finally, when asked about successes, many respondents referred to learners who had passed a language exam (regular state language exam or the final school leaving examination in the foreign language, each without the listening component), some who had gone on to study in higher education and who had even managed to acquire degrees. The participating language teachers are proud if their students continue their studies in mainstream education and do not give up learning a foreign language. In fact, teachers are happy to help their former students with extra classes in the afternoon so that they can keep up with their hearing peers.

6 Conclusion

The overall impression we gained from the interviews with language teachers of D/HH students, school principals and vice principals convinced us that teaching foreign languages to D/HH learners was hard but meaningful work, and that the teachers who participated in our research were doing it with deep dedication. We can conclude that catering for individual learners' needs is of high importance; this applies to all stages of the teachers' work from setting goals to giving feedback. The teachers we have talked to have to work in dire circumstances without any specialized foreign language teaching methodology to lean

on. Those who had received training in both SNE and FL teaching feel better prepared for the job than those who only have a degree in one of the two fields. SNE teachers find the general principles of dealing with hearing impaired learners and the methods applied in teaching them spoken Hungarian quite well adaptable for use in the FL classroom. A major obstacle for all is the lack of appropriate FL materials. Without available course books and resource materials all they can do is rely on their own resources, be innovative and create worksheets and visuals from scratch. More often than not they do their job in isolation from one another without networking or in-service training opportunities. Even so they do experience success: They see how their students progress by taking small steps such as learning a word or writing a sentence correctly, and sometimes by even taking big leaps, such as participating in an online competition, or using the language when travelling abroad.

Considering the preparation of teachers for this job, we received two pieces of advice: First of all, it is indispensable to be trained in SNE, and secondly, if someone wishes to teach D/HH learners effectively, they must learn HSL.

In light of the above, the main implication of the results is that the foreign language teaching profession needs to pay attention to this small group of teachers in two ways: first, by taking account of their needs when developing curricula and materials or designing in-service training programs. Second, since there is a growing tendency for integrating hearing impaired students in mainstream schools, teachers in regular schools could learn a great deal from those who work at schools for D/HH learners, so they can offer more appropriate foreign language education to D/HH learners in integrated settings.

Notes

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[2] The project website can be found at http://siket-nyelvtanulok.elte.hu

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APPENDIX

Teacher interview schedule
1. How long have you been working at this school?
2. What qualifications do you have?
3. Why did you decide to take a job at this school? How did you start teaching a foreign language?
4. How many hours do you teach per week?
5. What grade(s) do you teach in? How many students are there in each group?
6. How would you characterize the learners in terms of their hearing ability? (Deaf/hard-of-hearing/other/mixed)
7. How typical are other accompanying disabilities/learning difficulties?
8. What could be the goal of teaching foreign languages at schools for the Deaf and hard-of-hearing? (Is this laid down in an official document?)
9. What can be realized from these goals?
10. Based on your experience, are Deaf teenagers interested in learning a foreign language?
- What are their goals? (learning to read, accessing information, using the internet, emailing, travelling, their parents want them to learn)
- How do they choose to learn a foreign language? Do they have an option?
- Are there learners who are given waivers? Why? How frequent is this? Can you give examples?
11. How far can someone develop by the end of secondary school?

12. What kind successful experiences have you had?
13. What causes problems? (Please give examples.)
14. How could language teaching be made more efficient in terms of technology, materials, methodology, attitudes etc.?
15. Do you use sign language during the lessons? How proficient are you in HSL? When do you use it and what for?
16. Describe a typical lesson.

TEACHING ENGLISH TO DEAF AND HARD-OF-HEARING STUDENTS IN SERBIA: A PERSONAL ACCOUNT

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1 Introduction

This chapter describes the education system for deaf[1] and hard-of hearing (D/HH) students in Serbia with an emphasis on foreign language (FL) teaching. Teaching foreign languages to D/HH students is a relatively new concept in Serbia. This chapter presents the author's personal experience in teaching English as a foreign language (EFL) to primary and secondary school students in the "Stefan Dečanski" School for Hearing-Impaired Students, in Belgrade (from here on "Stefan Dečanski" School). It also presents the benefits of using project teaching in EFL through participating in various international projects.

2 The education of deaf and hard-of-hearing students in Serbia

Serbia has a long tradition of educating deaf children, but the system of schooling and teaching methods has changed in accordance with the socio-economic and political situation in the country and with the current scientific trends. The first attempts to educate D/HH children in Serbia were made by individual doctors and teachers and were later extended to regular schools, private institutions for the deaf and finally to state schools for D/HH children and youth. According to Professor Jasmina Kovačević (2003), the first methods of educating deaf children were mime and gesticulation, the written method and finger spelling, while an oral approach was used for working with hard-of-hearing children.

An organized school system was established after the adoption of the Constitution in 1835. Serbia then got its first government that included a Ministry of Education. The first Education Act was passed on September 23, 1844. It was valid for almost 40 years and it allowed psychically and physically disabled children to be exempted from obligatory schooling. The first state schools for deaf children were established after World War I. Until the end of World War II, there were only two public schools for deaf pupils in Serbia. Between 1918 and 1941, schools for the deaf were independent institutions. They were not included in the state school system, as they officially belonged to the social welfare system while the Ministry of Education supervised them.

The Education Act of 1970 allowed deaf children to transfer from special to mainstream schools at every educational level and continue education up to the university level under the condition that they are capable of following the mainstream school curricula. After 1974, mainstream and special schools followed the same reforms in education. The Law on the Basics of the Education System in 2009 and the amendments of that law in 2011 and 2013 (http://mpn.gov.rs/dokumenta-i-propisi/zakoni/obrazovanje-i-vaspitanje/504-zakon-o-osnovama-sistema-obrazovanja) introduced the concept of inclusive education in Serbia. Education is now available to all children, students and adults without any discrimination and segregation. In modern Serbia, elementary education is obligatory and free for all children aged 7-15 years. Secondary education is not mandatory, but it is also free, and the vast majority of students continue their education after completing elementary school.

D/HH children can be educated in special schools, or in special classes within mainstream schools or in regular schools. All schools follow the mainstream curriculum, which can be individualised and tailored to individual needs and skills. In special schools for D/HH students the oral approach, sign language and finger spelling are all used in the education process. Sign language is recognised as the first language of deaf people, but the Act on Sign Language is still to be adopted.

The "Stefan Dečanski" School is the oldest special school for D/HH students in Serbia. The "King Dečanski" Society opened the institute for the education of deaf children on January 30, 1897. This included a school using the oral approach in educating deaf children. It consisted of eight grades, each lasting one year. Throughout the history of this school, a desire to monitor and actively participate in the current academic trends related to the habilitation and rehabilitation of all forms of hearing impairments was present. The school provides preschool, primary and secondary education to D/HH students and vocational rehabilitation and

training in various fields of work. Secondary school education lasts from one to four years depending on each student's abilities. The students can engage in numerous extracurricular activities, and they can also learn foreign languages, religion, civic education and computer science.

The school has a primary goal of preparing and empowering D/HH students for life and work as versatile, independent and creative persons who can equally participate in all aspects of social life. In this framework the school cooperates with regular kindergartens, primary and secondary schools, because the goal of rehabilitation is the involvement of children in the mainstream system whenever it is possible.

The school is a scientific and teaching base of the Faculty for Special Education and Rehabilitation, the Faculty of Teacher Training and the Faculty of Philosophy (Department of Psychology) of Belgrade University and provides relevant professional practice for their students. The "Stefan Dečanski" School is also the Resource Center for providing support to other special and mainstream schools and to D/HH students who are educated in an inclusive environment. They are provided additional support in the form of individual or group tuition in various school subjects and fields of work, further explanations of lexical and grammatical content and the assistance in the preparation of the exam in English.

3 Foreign language teaching to deaf and hard-of-hearing students in Serbia

We live in a world which is characterized by significant advances in technology and an increased ability of traveling and communication with people from other countries where knowing and using at least one foreign language becomes a necessity. Until recently, FL teaching was not a part of the official curricula for special schools working with D/HH students in Serbia. There were some initiatives of individual teachers and schools and pilot projects in this field. It is now recognized that learning and knowing a FL at some level can provide a new perspective to D/HH students in terms of facilitating access to higher levels of education, better employment opportunities and career advancement, greater access to information on the Internet, travel and so on.

FL learning has recently been introduced as a school subject in special schools for D/HH students. It is based on the educational policy of equal opportunities for all, representing the attitude that all students should be

provided with equal opportunities for education and get the same quality of education without discrimination on any grounds.

The "Stefan Dečanski" School in Belgrade is the first school in Serbia that introduced EFL as a school subject to D/HH students at the secondary school level in 2002/2003. At the beginning, EFL was reserved only to future graphic designers enrolled in a four-year program. In line with the reforms of the curriculum, EFL was also introduced for students in three-year programs for male and female hairdressers in 2007/2008 and for future bakers in 2009/2010.

For some work fields and educational profiles the curricula have not been reformed yet and a number of D/HH students do not learn a foreign language at school. Some of these students have asked to be included in English language classes and the school management has decided to approve this request. They can learn English on a voluntary basis although officially they do not have it as a school subject.

English language classes are organised in accordance with the curriculum of English for D/HH students published in 2009. The number of teaching hours is two hours per week, or 74 hours in a school year, except in the final grade of the secondary school, where the number of teaching hours per year is 68.

In primary school, English was offered as a pilot program to D/HH students up to grade four in 2003/2004 and 2004/2005. The course was well-received thus providing the impetus to offer the course to all elementary school students. In accordance with an inclusive education policy in Serbia, EFL was introduced as a compulsory subject in primary schools for D/HH students in 2012/2013, starting from the first grade. At the same time, however, EFL was also introduced in the second and third grade, as special schools for D/HH students began following the national curriculum for mainstream schools. The number of teaching hours is two hours per week, 72 hours a year. In the school year 2014/2015 a second FL was introduced to D/HH students in the fifth grade of elementary schools.

3.1 English as a foreign language for deaf and hard-of-hearing secondary school students

The English language taught as a school subject to D/HH students provides an introduction to a new linguistic system. At the beginning of teaching English as a FL to D/HH students in Serbia the curriculum for mainstream schools was used as a basis for teaching as there was no

official curriculum for this population of students. The Serbian Education Act (http://mpn.gov.rs/dokumenta-i-propisi/zakoni/obrazovanje-i-vaspitanje/504-zakon-o-osnovama-sistema-obrazovanja) allows the curriculum to be adapted for students with special needs by changing up to 1/3 of its content. The National Curriculum of English for D/HH secondary school students was published in 2009 (Udarevic, 2009). It defines tasks and goals of English language teaching for this group of students.

The main objectives are to introduce D/HH students to the language and speech of other nations as well as to familiarize them with some elements of culture and civilization in English-speaking countries. By learning a foreign language D/HH students acquire new knowledge and skills and master a new linguistic system, which contributes to extending and enriching their general expressive, cognitive and intellectual abilities and raises their general educational and cultural level. Students gain awareness about the functioning of both the English and the Serbian language as they notice similarities and differences between the two linguistic systems. They also learn about the culture, customs and way of life of people in English speaking countries. By learning English, D/HH students extend their experience of the world around us, develop aesthetic and moral values, and build awareness of the need for cooperation and tolerance among people. This allows the students to develop positive attitudes towards other languages and cultures as well as to their own cultural heritage; they learn to respect differences and become more tolerant.

After completing their secondary school education, some of the D/HH students continue their studies at college and university level in mainstream settings. They are provided with adequate educational support in following the program in EFL. Since the 2006/2007 school year 22 former graduates of our school have passed the English exam at higher educational institutions (most of them as students at various departments of the "Belgrade Polytechnic"). In accordance with the Bologna reform, the majority of higher education exams are in the written form, but the EFL exam also includes an oral part. The D/HH students took the same written exam as their hearing peers, but they did not have to sit for the speaking test.

3.2 Teaching methods

If we take into account the fact that teaching foreign languages to D/HH students is a new concept in the educational system of Serbia, it is

understandable that this problem raises a number of questions and issues. There is no special methodology of FL teaching for D/HH students. Teaching is based on the assumption that the spoken and written Serbian language is practically the first foreign language that D/HH students learn (as the Serbian Sign Language is the mother tongue[2] to the vast majority of them). This is the main reason for combining the methodological principles of teaching Serbian to D/HH students with the general principles of EFL methodology. Some modifications, however, are necessary. Teachers in mainstream schools rely a lot on listening and speaking, which cannot be done with D/HH students, so instead the emphasis is put on reading and writing. We can say that the teaching methods and teaching contents are modified according to the needs and individual psycho-social abilities of D/HH students.

Soon after beginning to teach English to D/HH students, it became evident that even the students in the same class had very often different levels of foreign language skills. Most D/HH students need a highly individualized approach that will provide progress and lead to optimal results in English language learning. In working with D/HH students, we have to keep in mind some specific characteristics of hearing impairments and their implications for FL teaching. In teaching English to D/HH students, all available methods of communication should be used – oral, written, sign language, finger spelling and so on.

The students should acquire a basic knowledge of the English language, which will allow them to express themselves in communicating with people from other countries in simple oral or written exchanges. They are taught all four language skills (reading, writing, listening and speaking), but due to the nature of hearing loss as well as the different degrees and types of hearing impairments listening and speaking can present a problem. Therefore the emphasis is usually put on reading and writing in English, while the art of listening is practiced by using the existing residual hearing of the students and supplementing it with reading the speech from the lips of the speaker, using gestures and sign language. Students are not required to speak English if for some reason they do not feel comfortable doing it because, for example, a student feels insecure and ashamed to speak a foreign language due to poor articulation or possible mistakes, or fears that he or she will not be understood well. Students are also taught to adopt the norms of verbal and non-verbal communication in English in accordance with their general cognitive and linguistic abilities.

Learning the structure and vocabulary of a new language can contribute to the simultaneous learning and improving of language skills

in Serbian (in terms of, for example, improving and enriching their vocabulary and their grammar skills by a better understanding of the structures and functions of the Serbian language and their applications in the linguistic system). In communicating with hearing people, a deaf or hard-of-hearing person can rely on residual hearing, lip-reading, gestures and other non-verbal expressions. Before the communication starts, it is necessary to get the attention of the D/HH person (by for example tapping on the shoulder or giving some other, previously agreed sign) and to ensure that there is visual contact, in other words that he/she is looking at the speaker.

The teacher must take care to face the students when he speaks and ensure that his face is lit appropriately. Facial expressions, mime and gestures should be in agreement with the content of the message that is expressed. Teachers and other students need to speak naturally, at normal speed, and not exaggerate their lip movements, nor talk too slowly or quickly. Since some similar sounds are hard to read from the lips of the speaker, students may have difficulty understanding speech, although, in some cases, they can infer the meaning of words from the context. If a student does not understand the content of the spoken messages, the same should be repeated or expressed in a different way. Key words and phrases from the oral presentation should be followed by translating them into sign language or adequate natural gestures (e.g., simulating the actions or using appropriate facial expressions of emotions). All important notices and information the teacher gives should be accompanied by writing them on the board (for example, the number of the page and exercise or information related to homework).

We should always bear in mind the fact that it is sometimes difficult for D/HH students to learn grammatical rules even in the first spoken language (in this case in the Serbian language). For that reason, the grammar content in English language teaching is reduced in special schools in comparison with mainstream education. All grammatical features are introduced with less grammatical explanation, and the students' knowledge is assessed and evaluated by appropriate use in an adequate communicative context without requiring the explicit knowledge of grammar rules. At the same time, experience shows that learning the grammatical structures and functions of a foreign language leads to a better understanding of the structures and the ways of functioning of the first language, in our case, Serbian.

The form and meaning of the vocabulary and structures in a foreign language can present difficulties for D/HH students. In order to reduce the challenges and obstacles in teaching a foreign language to this population of students, it is necessary to make language visible, which means we

should use visual materials, such as real objects, pictures or adequate illustrations, as much as possible. A new word or phrase should be written on the board, preferably in both languages using color coding (for example blue for a new word or phrase, red for pronunciation, and green for the explanation of meaning). Whenever possible, the teacher should explain new words and expressions by showing an object or a picture, or perform a simulated action. As it is unlikely that D/HH students will perceive a certain grammatical structure or a rule by themselves, it is necessary to explain it to them. While explaining grammar we should direct particular attention to presenting similarities and differences between the English and the Serbian language. All grammatical explanations should be simple, appropriate to the age and previous knowledge of D/HH students. To highlight grammar rules we can use coloured chalk or coloured markers, write examples on the board, or draw a chart or diagram to illustrate a particular grammatical content.

3.3 Course books

After reviewing the proposed EFL course books in use in Serbian schools, it becomes evident that most of the books are not appropriate for D/HH students. They are mostly written by foreign authors and although well designed, they are completely in English, which presents a problem to D/HH students. There are not many books by domestic authors and book publishers for teaching EFL to secondary school students at the beginner level, which is quite understandable because most of the hearing Serbian students start learning English at some point in elementary school where they are taught at least one, but usually two foreign languages starting in the first or the fifth grade. It is rare that hearing students start learning English as a foreign language in a secondary school. Even when this is the case, the course books in use are usually inadequate for D/HH students. These books are mostly printed in black and white on low-quality paper, and they are not adequately illustrated to satisfy the needs of D/HH students. As a result, in the beginning of teaching English to D/HH students we used adapted materials from different course books or the Internet, as well as materials created by teachers. Later, we decided to use a book and our choice fell on a course book and workbook designed for adult beginners and published by the Institute for Foreign Languages in Belgrade (Kovačević & Filipović-Radenković, 2006)

As it is emphasized in the foreword, the chosen course book is specially designed for real beginners in English. Its goal is to familiarize

students with the basic grammatical structures, language functions, vocabulary and frequent phrases necessary to communicate in everyday situations and to provide awareness of appropriate responses in adequate register in various social situations. The goal is to train the students in oral and written communication at beginners' level of English. Equal attention is paid to developing all four language skills (speaking, listening, reading, and writing). Numerous exercises have the primary aim to help students to acquire these skills. The course book consists of introductory lessons on basic orthography and the English alphabet, 14 teaching units, four progress checks, different communicative activities, a list of personal and geographical names, a list of grammatical terms and an alphabetical list of vocabulary. After every unit there is a bilingual English-Serbian list of the new words, terms and phrases that are introduced in that particular unit. At the end of the unit, the necessary linguistic information is provided and principal grammar points are explained in Serbian. Instructions for exercises are written in Serbian so they are easier for D/HH students to understand. The course book is based primarily on the structural–communicative approach to language teaching, but it also contains elements of other approaches, i.e. the functional and the lexical approach. The course book contains numerous photographs and other illustrations, which are used in different ways and with diverse purposes, such as introducing new vocabulary or grammatical content, as well as practicing language functions. Sometimes, illustrations are used to introduce the students to the topic of that unit or to provide some relevant socio-cultural information.

Although designed for adult learners of EFL, with some minor adaptations and adjustments the book provides a solid basis for class work. When using it for teaching EFL to our D/HH students the principles of individualization and differentiation are applied, and grammar activities are simplified and reduced in accordance with the cognitive and physical abilities of the students. The units cover topics that are attractive to D/HH teenagers because they target basic communication needs. Class time predicted for working on each lesson is usually prolonged according to the needs of D/HH students. Listening exercises are substituted with reading the tape script or using lip-reading combined with sign language and finger spelling, and doing appropriate exercises afterwards. The course book is accompanied by the corresponding workbook, which is commonly used for additional written practice and reinforcement, as well as for homework.

3.4 Additional support

In order to make language learning more interesting and provide more opportunities for practicing the English language, we use various computer programs and IT tools for language learning. In cooperation with a hearing and speech therapist, students also practice correct articulation and pronunciation in English, as well as in Serbian. The hearing and speech therapists use specially designed computer programs which give feedback whether the student's pronunciation of a word or phrase is correct, and if it is not the case, visual representation and animation of the correct pronunciation is provided. The students consider these classes interesting, and they are highly motivated to participate and improve their English speaking skills in this manner.

The teachers who provide individual support to the students reported that among those who attended English language lessons they noticed improvement in vocabulary and grammar skills in Serbian as well. Students were comparing these two languages and drawing conclusions about similarities and differences between Serbian and English. They considered Serbian to be easier for reading and writing as the Serbian alphabet is phonetic, which means that one written letter is pronounced with one sound, and in their opinion English grammar is easier than Serbian.

3.5 EFL in elementary school for deaf and hard-of-hearing students

Before EFL was officially introduced into elementary schools for D/HH students, first a pilot program was implemented. This project included D/HH preschoolers and elementary school students from 1st to 4th grade. Parents supported the initiative by bringing the teacher textbooks, manuals and other materials from their children who were attending mainstream schools. The pilot group consisted of 25 students. It was highly heterogeneous as students were of different ages and had diverse previous knowledge, skills and experiences. English was not an official school subject and students did not get grades, so they were relaxed and highly motivated to participate in English language lessons.

Writing was not included in the pilot program. Since the Serbian language uses both the Cyrillic and the Latin alphabet, they are introduced one after the other: in mainstream schools, students learn the Cyrillic alphabet in the first grade and the Latin alphabet in the second grade. In the schools for D/HH students the Latin alphabet is learnt only in the third

or fourth grade. In the pilot program we decided not to teach writing in English as students were at different levels regarding writing skills; some of them were just beginning to learn how to write, some did not know the Latin alphabet, while preschoolers did not know how to write at all.

It is well-known that young children learn in a different way than older children, adolescents or adults. Harmer (2007) points to the importance of some of these differences in EFL. Young children respond to meaning even if they do not know or understand individual words. Abstract concepts, such as grammar are hard for them to grasp. They have short attention span, which means that in teaching young children the teacher often needs to change activities. Young children also learn by collecting information from different sources, and they do not learn only the content they are officially being taught. Children learn more from things they see, hear, touch or interact with in some way than from explicit explanations provided in the classroom. They show enthusiasm about learning and are curious about discovering the world around them. All the above made us decide to use the communicative approach combined with an adapted version of Total Physical Response, which is believed to suit children of this age.

The Total Physical Response Method was founded by psychologist Dr. James Asher (1996). This method relies on the principles of the natural acquisition of the mother tongue (for people with normal hearing), and involves listening and reacting physically to verbal commands, such as reaching, grabbing, moving, or looking. It simultaneously develops the motor and verbal abilities of the students. In this manner a child first learns to understand and execute basic commands (for example *Come!,* or *Stand up!*), which allows the child to develop observation skills and the ability to understand and execute orders and tasks. With our D/HH students, we had to rely on their residual hearing supplemented with lip-reading, sign language and natural gestures. We used pictures, songs, toys and games, such as *Simon says*, or educational board games and alike. Activities also involved drawings, making posters and creating different products. This approach puts emphasis on good non-verbal communication skills (facial expressions, imitation, gestures), and this is particularly emphasized in working with D/HH students.

Following the pilot program, EFL was officially introduced to all D/HH elementary school students in 2012/2013, starting from the first grade. The curriculum for EFL is the same for special and regular schools. In 2014/2015, some legislative changes and reforms in education that are currently still in progress in Serbia led to introducing a second foreign language –Italian in the "Stefan Dečanski" School– to D/HH elementary school students in Serbia, starting from the fifth grade.

After completing primary school, some D/HH students continue their education in mainstream secondary schools, where they are either exempted from learning a foreign language or they attend English language classes with an adjusted curriculum. An example of the foregoing is a student, who finished primary school without taking English at the "Stefan Dečanski" School in 2012/2013. In 2013/2014, she enrolled in the "High School for Design" in Belgrade. Based on the initial arrangements that her parents achieved with the school management she was first released from EFL classes. After the student expressed her desire to learn the English language and in accordance with the recommendation of the institute responsible for evaluating the quality of education, she was provided with an opportunity to learn English at beginners' level (level A1 according to the Common European Framework of Reference, CEFR) in the first grade of high school. Her classmates, who had learnt English in primary school, followed the mainstream curriculum for the first year of secondary education (9th year of EFL).

4 Participation in international projects

As described above, until quite recently D/HH students had their first encounter with a foreign language as a school subject as teenagers. In order to further motivate them for learning English as well as provide an opportunity for them to use the language in realistic, appropriate and meaningful communicative situations we decided to engage them in the implementation and realisation of various international projects.

In 2012/2013, our school became a member of an international school network, the Academy of Central European Schools (ACES), which includes primary and secondary schools from 15 European countries. Within the ACES framework, we realised two projects in cooperation with other special and mainstream schools from this part of Europe. Project participants were students from partner schools aged 12-17 years. Implementing ACES projects provided D/HH students with an opportunity to participate in international project meetings and partners' visits, to communicate with their peers from abroad both in person and online, and to use English as the primary tool of communication in international and inclusive settings.

The first project, *Media Voices for Special Teens* on the topic of media literacy was implemented in cooperation with a special school from Romania. The aim of the project was to increase the visibility of students with disabilities in the media and to raise the level of awareness and

consciousness of the public about people with special needs. While working on the project, the students interacted with their peers from partner schools through the Internet using e-mail and social networks (mostly Facebook). With the support of teachers they discussed and made decisions about future activities in the project. Mutual visits of the project partners were additional opportunities for establishing communication in English. As there was a lack of media reports about teenagers with special needs, we created our own online media tool, a trilingual project blog on the Internet in English, Serbian and Romanian, which was exceptionally well received (had over 18,500 visits). The secondary school students were actively involved in the development of the blog, the choice of materials and content creation, and two students acted as blog administrators. The students also had the opportunity to prepare materials for two international network meetings, while student representatives, who attended these meetings, had a chance to communicate with their peers from mainstream and special schools in Europe and to present in English our project activities and results along with a student from Romania. At the closing ACES Academy in Senec (Slovakia) in April 2013, the project was awarded for special achievements in the field of innovative learning. In Europe the project was published in the manual *Media Literacy in Europe: 12 good practices that will inspire you* in November 2013 (Urdarević, 2013).

The second project, *Different but the Same* had diversity as the main topic and was realised in partnership with two mainstream schools from Bulgaria and Romania in the 2013/2014 school year. During the project implementation we created our project page on Facebook (www.facebook.com/differentsame), which recorded our project activities and shared interesting information on Deaf culture. During project partner visits we organized various workshops and a small sign language course where our students taught their peers from local and foreign partner schools the basics of communication with deaf people. We recorded ten video lessons of sign language, and we published them on our project page. Fifteen current and former students were the page administrators. They published and edited the content of the page in Serbian and English, for example page statuses, photos and video albums of project and other relevant activities, and also content pertinent to D/HH, such as songs by various artists translated into Serbian, British or American Sign Language, announcements of different cultural events and so on. Project partner visits presented a further opportunity to use English in order to establish and maintain communication. As the students become friends with their peers from Romania and Bulgaria, the communication between them continued through social networks even after the project had been completed. During

the project implementation, D/HH students were trained to use various computer and Internet programs to facilitate communication and translate content from Serbian to English, but they also learnt the basics about Internet safety. During the project partner visit in Bulgaria, a group of secondary school students made a presentation about Belgrade in English.

The students who participated in the two international network meetings had the opportunity and felt encouraged to communicate in English with their peers from other European countries as illustrated by the following example. This ACES project cycle also included another special school for D/HH students from Bucharest, Romania. At the initiative of the project coordinators from two schools for D/HH students and in order to facilitate the communication of the students with their hearing peers at the final network meeting a sign language interpreter was present. The student representative from the Serbian school, however, decided to speak English together with students from the mainstream schools from Romania and Bulgaria for the project presentation at the ACES Academy 2014 in Senec (Slovakia). She refused to use the services of the sign language interpreter although she suffers from severe hearing loss (more than 90 percent hearing loss).

The D/HH secondary school students also participated in the *Debating Europe Schools* project, a part of *Debating Europe*, which is an online discussion platform (http://www.debatingeurope.eu/focus/schools/) supported by the European Parliament that encouraged a series of online debates on a number of topics with citizens and asked high-profile politicians and experts to contribute. This initiative intended to provide the students with an opportunity to ask questions from European politicians, learn how to formulate *difficult* questions and interpret the answers, discuss with their peers from other countries in Europe and learn more about the work of the European Union. The students asked five questions that were related to the position of deaf people in the EU, deaf education in Europe, legislation on sign languages and sign language use, opportunities for employment and getting adequate health care. We recorded our questions in the form of short videos, and in order to involve the D/HH community in the debates we made the videos available for them by providing subtitles in English and translation into Serbian Sign Language. Our questions were answered by members of the European Parliament and human rights activists, and were published on the *Debating Europe Schools* web page as two posts: "What can be done to improve employment opportunities for people with disabilities?" and "How can the EU better guarantee the rights of people with disabilities?"

During the Belgrade International Book Fair, a group of D/HH primary and secondary school students participated in an English language learning workshop, entitled *Touch the Sky* that was organised in cooperation with the British Council and EUNIC Serbia (European Union National Institutes for Culture) together with students from two mainstream schools from Belgrade.

D/HH students were highly motivated to participate in project work. Spoken communication presented a challenge in both Serbian and English especially to profoundly deaf students as their hearing friends sometimes did not understand them because of poor articulation or pronunciation mistakes. However, they managed to find a way to overcome the communication barrier between them and hearing students from Serbia and abroad. For this purpose, the D/HH students used writing, various translators and dictionaries available online, sign language and natural gestures. Project-based learning increased the opportunity for D/HH students to interact with their hearing peers and raised their self-confidence and self-esteem.

5 Conclusions

This chapter presented the education system for D/HH students in Serbia with an emphasis on foreign language teaching. This paper also described the author's personal experience in teaching EFL to D/HH students. As EFL for D/HH students is a relatively new concept in Serbia, there are still some open questions and issues which should be (re)solved in a systematic manner.

Although the Education Act (http://mpn.gov.rs/dokumenta-i-propisi/zakoni/obrazovanje-i-vaspitanje/ 504-zakon-o-osnovama-sistema-obrazovanja) allows D/HH students to transfer from special to regular schools on every level, they are usually exempted from EFL classes or attend them on an adjusted curriculum depending on the decision that an individual school achieves with the parents and the students. All D/HH students should be allowed to participate in FL classes and these issues should be solved by the Serbian education system. Foreign language teachers in mainstream schools should be provided with adequate support in order to provide the necessary adjustments and to facilitate EFL learning for D/HH students.

After revising the proposed course books for EFL in use in Serbian schools, it has become evident that most of the books are not appropriate for D/HH students. It is up to individual teachers to decide on the material

and methods to be used in classes. The teachers should be offered a selection of materials, books and didactic tools to choose from.

The present account also includes examples of good practice in teaching English as a foreign language to D/HH students. Serbian students have been involved in international project work within the framework of the Academy of Central European Schools. In partnership with special and mainstream schools from Romania and Bulgaria we realized two projects on media literacy and diversity. Students also participated in the *Debating Europe Schools* project, which is an online discussion platform designed to enable young people to question European policymakers, learn more about the work of the European Union and have discussions with their peers from abroad. While working on a project topic, they also improved their English language skills in an enjoyable, meaningful and fun way. We can recommend project-based learning as an added tool for teaching EFL to D/HH students.

Notes

[1] Throughout this study the term deaf is spelled with a lower case *d* to refer to the medical condition (deafness) and a capital D is only used when referring to Deaf culture.
[2] In this paper the term *mother tongue* refers to the first tongue adopted by a child.

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CHAPTER SEVEN

CHAPTER SEVEN CHALLENGES OF READING COMPREHENSION DEVELOPMENT OF DEAF LEARNERS IN THE FOREIGN LANGUAGE CLASSROOM: PUTTING THEORY INTO PRACTICE

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1 Introduction

Despite the common understanding that the ability to comprehend written material not only in one's first language but also in foreign languages is essential for success in education and everyday life, many deaf individuals still struggle with reaching a functioning level of reading comprehension in any language. Unfortunately, foreign language instructors of deaf learners lack research-based knowledge as well examples of good practice that could be used to support their choice of efficient teaching techniques and procedures in all areas of foreign language teaching. The aim of this paper is to contribute to the knowledge in the field of foreign language instruction of deaf learners concentrating in particular on reading skills.

This paper presents a part of the activities conducted for a doctoral dissertation which concerns the reading skills of deaf students of English as a foreign language (EFL). One of the objectives of the doctoral dissertation research is to study the effects of explicit reading strategy instruction on the reading process of learners and on their attitudes towards reading in EFL and in general. The reading strategy instruction consists of a series of interventions performed during a one-semester EFL course; its effects are studied using a qualitative approach.

The objective of this paper is to describe the development of the reading strategy framework on which the interventions were based as well as the practical implementation of these interventions. First, I introduce the general background of the doctoral research project to enable a better

understanding of my motivation for concentrating on this topic. Then, I discuss the reading process and the development of reading comprehension, focusing on the specific situation of deaf readers. Subsequently, I try to explain the rationale behind applying explicit reading strategy instruction in teaching deaf learners foreign languages.

Finally, I introduce a list of reading strategies prepared for the interventions and describe the aims of these interventions and the procedures for implementing them. I also include practical examples of activities used during the instruction of particular reading strategies.

2 Background

The issues covered in my research project combine two areas: (a) the reading process and the development of reading skills and (b) teaching foreign languages to deaf individuals. Reading has been a long-recognized issue in deaf education, but research has mostly focused on early reading and developing reading skills in the national spoken language (i.e., the first written language deaf readers encounter) (Spencer & Marschark, 2010). I, however, examine deaf readers from a slightly different perspective, focusing on adult deaf learners who study at the university level and who have therefore been academically successful (which does not necessarily mean that their reading comprehension is problem-free).

On the contrary, teaching foreign languages to deaf and hard-of-hearing people is a relatively new area of study with a scarcity of both, research-based knowledge and theoretical debate about underlying issues. Nevertheless, the importance of foreign language competence (particularly in English) for academic and career success applies to hearing impaired individuals as well as to their hearing peers. Additionally, because deaf learners' foreign language input as well as their actual use of the language primarily involves the written form of the studied language, reading comprehension is a crucial component of their foreign language acquisition. This situation forms the motivation behind my doctoral research project. In this paper, I present part of my research focused on the EFL reading process of learners with prelingual deafness and on the possibilities of developing reading skills in the English language classroom.

For two reasons, a substantial part of the theoretical background of this paper and of the dissertation project draws upon knowledge about deaf reading in the national spoken language (i.e., the first language encountered in reading). First of all, reading in the national language plays a significant role in the development of reading in a foreign language.

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Second, there is very little knowledge about how deaf persons read in foreign languages and how they develop foreign language reading skills. In this study, the national spoken language is Czech, and the foreign language is English.

In the Czech Republic deaf students are required to begin learning a world language in the higher grades of primary school, and most of them choose English. At university, depending on the study program, students (both deaf and hearing) must achieve a level of communicative competence in a world language of at least B1 or B2 based on the Common European Framework for Languages (CEFR) (Council of Europe, 2011). The English competence of the participants in my research ranged between high A2 and low B2.

For Czech deaf learners, who first learned to read in Czech and who do most of their everyday reading in Czech, reading in a foreign language, particularly English, is a skill of ever-growing importance. At the academic level in particular, a high level of reading comprehension in English is expected.

Naturally, learning to read a new language does not entail learning how to read anew. Instead, readers must apply their existing ability to read to new structures and situations. Research has shown that problematic areas in reading in the first language will most probably repeat themselves or be intensified in a foreign language (Ganschow, Sparks, & Javorsky, 1998). Therefore, when investigating reading in a foreign language, researchers need to view reading skills in their full complexity.

In the following part of the paper, I will explain the rationale behind using explicit reading strategy instruction in the development of reading skills in the EFL classroom for deaf learners. Subsequently, I will describe how the instruction was employed in the dissertation project in a series of interventions.

3 Deafness and reading

As mentioned above, the development of literacy amongst deaf people and low levels of reading comprehension have been internationally recognized as very significant issues in deaf education and are considered to be key barriers to academic and career success for deaf individuals (Marschark, Lang, & Albertini, 2002; Spencer & Marschark, 2010).

In the USA reading comprehension levels of deaf learners have been continuously tested since the 1920s. Resulting data show low reading ages of deaf learners compared to their hearing peers (Paul, 2003; Spencer &

Marschark, 2010). Reading age is derived from the average performance on a standardized reading test. Despite of a lack of focused research on this issue in the Czech Republic, Czech specialists in deaf education have also repeatedly pointed to the problem of low reading comprehension achievement of deaf persons (Hrubý, 1997; Macurová, 1995, 1998, 2000).

Although many deaf people become successful readers, those that are successful should be considered single individuals rather than representatives of the whole population. Indeed, Hrubý (1997) generalizes that many deaf readers in the Czech Republic do not reach a satisfying level of functional literacy. Their everyday reading is often restricted to materials such as short texts, newspaper headlines, and subtitles.

This situation naturally leads to efforts of researchers to reveal the causes of the problems deaf people have with reading and to find effective ways of supporting the reading development of deaf learners.

3.1 The reading process

Contemporary specialists view reading as a complicated, interactive process that combines language processing with cognitive processes enabling the connection of new information with existing knowledge. Conclusions are subsequently drawn from this process and stored in memory. This view applies to reading a first language (L1) as well as a foreign language (L2) (Bernhardt, 1998, Carell, Devine & Eskey, 1988; Grabe, 2009). Van den Broek and Kremer (1999) claim that comprehending a text means for the reader to   "construct a mental 'picture' of the text: a representation in memory of the textual information and its representation" (p. 1).

Two types of processing, bottom-up and top-down, work together to create mental representations. Treiman (2002) explains the difference between these two types of processing by stressing the source of the stimuli processed. In bottom-up processing the primary source of information comes from the language of a text (such as the words that form sentences). In top-down processing the primary source of information is the reader and his or her prior knowledge and expectations of the contents of the text. Readers then use the actual elements of the text to confirm or disconfirm their hypothesis of the contents (which can allow them to skip some of the elements) (Treiman, 2002).

Although scholars hold differing views on the significance of the two types of processing in the reading process, findings from neurobiological research based mainly on eye tracking seem to suggest that bottom-up processing plays a dominant role. Nonetheless, as Treiman (2002)

concludes, "In most situations, bottom-up and top-down processes work together to ensure the accurate and rapid processing of information" (pp. 665–666).

Contemporary models of reading seem to agree that the basis of reading comprehension is making meaningful connections between the text and the reader's prior knowledge (of text content and language); these connections then enable the creation of mental representations (Helder, van den Broek, Van Leijenhorst, & Beker, 2013, McNamara & Magliano, 2009). The whole process takes place on two levels: a lower processing level involving basic reading skills and a higher level of processing involving higher level reading skills (Grabe, 2009; Helder et al., 2013). As Grabe (2009) explains the words *lower* and *higher* do not refer to either significance or complexity of the processes but to the fact that the lower level processes are more readily automatized.

At the language processing level the reader processes the individual parts of written text and connects them to their phonological, orthographic, and semantic representations. Higher level comprehension skills include making predictions and inferences and questioning or exercising control. Gaining understanding of a text as a whole requires processing and interconnecting its individual mental parts and in this way, a reader can construct a coherent mental picture of the text (Kendeou, van den Broek, Helder, & Karlsson, 2014).

Reading in a L2, is to a large extent similar to reading in L1 (Alderson, 1984; Bernhardt, 1998; Grabe, 2009), and researchers pay a substantial amount of interest to the relationship between the two (Hulstijn, 1991).

However, in the case of deaf readers, determining between first and second languages is not a straightforward issue. Most deaf people, particularly those with prelingual deafness, consider a national sign language to be their first language and the national spoken language to be their foreign language. It is beyond the scope of this paper to discuss this issue in much detail. For the purpose of the debate on reading, I refer to reading by deaf people in their national spoken language as L1 reading; this initial experience with reading subsequently influences later experiences. L2 reading refers to reading in a foreign language (in this case EFL).

Alderson (1984) discussed the importance of non-native linguistic knowledge over reading-skill competence for non-native reading and concluded that both of these components are important for successful reading comprehension. However, based on research findings, linguistic knowledge seems to play a more significant role. Linguistic knowledge refers to the mastery of a particular linguistic code, which includes

vocabulary knowledge as well as knowledge of lexical, syntactic, semantic, phonetic, and orthographic rules. Canale and Swain (1984) refer to this knowledge as *grammatical competence*, whereas the CEFR (Council of Europe, 2001) refers to *language/linguistic competence*. Clearly, for reading in a foreign language, increasing linguistic knowledge in that language is vital, nonetheless, supporting the development of reading skills is also highly beneficial (Grabe, 2009). When reading in L2, readers use reading skills acquired for reading in L1 and therefore supporting a positive transfer of the skills or developing the inadequately mastered skills should be a part of foreign language instruction (Harmer, 1991).

Based on the knowledge of the reading process and reading development, it is clear that the causes of deaf learners' problems in reading development in L2 lie in communicative competence (including linguistic knowledge and skills) and cognitive functions in L2. Cognitive development is closely connected to language and language development, and early access to comprehensible language input is essential for the regular development of cognitive functions (McAnally, Rose, & Quigley, 2007).

3.2 Issues facing deaf learners in reading development

The causes of the problems deaf people face in reading stretch back to early reading development and even beyond, as lower and higher level comprehension processes develop well before formal reading education occurs (Kendeou et al., 2014).

In the case of hearing children, reading instruction usually starts once they have acquired the spoken form of the national language at an age-appropriate level. Their semantic and syntactic knowledge and their prior knowledge and experience are linked with the language, and on this basis they are able to decode language (even figurative language) and predict the content of a text and make inferences about its meaning (McAnally et al., 2007).

On the contrary, deaf children often first learn to read in a language in which their level of communicative competence is limited. At the same time, unless they come from a deaf family, their communicative competence in sign language is also lower compared to the communicative competence of their hearing peers in their first language. Additionally, as pointed out by McAnally and her colleagues (McAnally et al., 2007), deaf children's previous knowledge and life experience is not solidly linked with language in general.

The language situation of deaf people is often quite complicated. Naturally, their family and the environment in which they grow up play a fundamental role in their language and reading development (Spencer & Marschark, 2010). When a deaf child is born to deaf parents who are sign language users, the child's family uses a language that is accessible and comprehensible to him or her, and the early language development of the deaf child may not be fundamentally different from that of a hearing child (Marschark et al., 2002; McAnally, 2007; Sandler & Lillo-Martin, 2002). Sign language may then function as a solid base for learning a second language, primarily the national spoken language. Even though the early reading experience of such deaf children may not be the same as that of their hearing counterparts, they seem to be in an advantageous position.

Nonetheless, most deaf children are born to hearing parents, and their early language development is radically different from that of hearing children. During their first years of life, their access to comprehensible language input is limited, and thus their early language development is also very limited. Their access to spoken language is sensorially restricted and the available means of communication (which often include some spoken language, home signs, a basic signed version of the national spoken language, or the basics of sign language) present restrictions on the quantity of topics discussed and the quality of the discussions. Deaf children lack adult models using a language that is sensorially accessible to them. The children may, particularly in early in life, find themselves in a "non-language" environment, which has a strongly negative impact on their language and overall cognitive development (Macurová, 1998; translation in inverted commas provided by the author).

Even in later years, many deaf people are faced with limited linguistic competence in spoken language, particularly limited vocabulary and syntactic and grammatical knowledge; limited linguistic competence is often considered to constitute the key obstacle in reading development (Hrubý, 1997). Furthermore, deaf children do not often have early reading experience qualitatively or quantitatively comparable to that of their hearing peers. The given circumstances make it complicated or even impossible for deaf readers to decode texts at the language level or make inferences and come to conclusions about a text's meaning. These difficulties lead to the use of ineffective and inappropriate strategies. For example when answering comprehension questions low achieving deaf readers are prone to making associations based on visual or semantic similarity between words or copying parts of the text containing words present in the questions (McAnally et al., 2007).

Reading comprehension requires reading fluency, which is facilitated to a certain extent by the automaticity of some parts of the reading process (most readily automatic word recognition and language decoding, i.e., lower level processes); automatic processes leave more mental resources (such as working memory capacity) available for higher level reading comprehension processes (Grabe, 2009; Kendeou et al., 2014).

The above mentioned problems deaf people face in reading development complicate automaticity. Given the limited language competence of deaf readers in spoken language, they must concentrate their mental capacities on decoding text at the language level, on understanding individual words and sentences, which may limit available capacities for understanding content, and for creating the mental picture of text. Subsequently, deaf readers do not have the possibility to develop the cognitive and metacognitive skills needed for high level reading comprehension and for self-evaluation of the reading process and comprehension (or incomprehension) of the meanings of texts (McAnally et al., 2007; Paul, 2003).

3.3 Deafness and reading in a foreign language

Although L1 reading of deaf people and L2 reading of hearing population may in some aspects be very different, authors have sought parallels between the two (McAnally, et al., 2007). In both cases, students are learning to read a language in which they have not reached a certain level of communicative competence (as is usual for hearing individuals when learning to read in their L1).

Reading processes in L1 an L2 are basically very similar, however differences can be found mainly in two areas: language competence and previous knowledge (McAnally et al., 2007). The restrictions imposed by low proficiency in the language of the text decrease the speed and fluency of reading and subsequently have a negative impact on comprehension. Previous knowledge, both topical and formal, which is required for comprehension of a text in L2, may be missing or limited in a reader coming from a different linguistic and cultural background.

With increasing communicative competence, particularly linguistic competence, in L2 and with more experience reading various kinds of texts in L2, hearing readers may gradually develop automaticity at some levels of the reading process and therefore increase reading fluency; which results in a higher quality of text processing and better comprehension. For deaf readers, reading development does not follow a similar pattern as these readers lack sufficient practice (McAnally et al., 2007). Reading

development therefore results in a vicious circle: due to the restricted skills and language knowledge of deaf people, reading comprehension is limited and thus reading does not increase their background knowledge or language knowledge. Despite the lack of studies on how deaf people read in a foreign language, it can be assumed that a number of the problems and issues related to the first reading experiences of deaf learners will persist in the later stages of reading development and will intensify with growing levels of task complexity. These problems are repeated and intensified when reading in additional languages.

Writing about hearing learners, Grabe and Stoller (2002) suppose that reading in L2 is supported by a dual language system, which includes the first language and the foreign language and in which the skills bound to the individual languages interact. Deaf readers, however, utilize a triple language system, which, besides L1 (the national spoken language) and L2 (the foreign language), also includes the local sign language. Although no particular reading skills are involved in sign languages, sign languages do have different modalities, syntactic structures, and so forth, and thus for people who consider a sign language to be their first language, this language may influence how they structure their thoughts and understand concepts (Sandler & Lillo-Martin, 2002).

Other highly influential factors influencing reading are emotions, attitudes, and motivation (Kintsch & Kintsch, 1996). The above described issues involved in reading of deaf persons and the frequent lack of positive experiences connected to reading often result in negative attitudes and low motivation to read in general; these problems will also influence reading in a foreign language.

4 Developing reading skills in the foreign language classroom

The recommended ways of developing reading skills in the L2 classroom are based on the nature of the reading process described above. They include increasing linguistic competence in L2 and also supporting the transfer of existing reading skills connected to L1 or developing lacking or underdeveloped reading skills (Harmer, 1991). Beside the development of reading skills or better alongside to it, reading instruction also influences learners' habits and attitudes. Marschark et al. (2002) state:

Students need to discover and become comfortable with strategies for decoding text and ways to construct and to understand information. At the same time, we are teaching ways of approaching reading and text materials. (p. 171)

Although research seems to indicate that linguistic competence plays a more significant role in L2 reading success (cf. Alderson, 2000; Anderson, 1984; Grabe, 2009), the development of reading skills should not be neglected. Particularly in cases where L1 readers are unsuccessful or at-risk, the instruction of reading in a foreign language cannot rely on the positive transfer of reading skills from L1 and therefore should involve practices that support the establishment and development of such skills (Ganschow et al., 1998). Research findings concerning reading skills and strategies show that the effective use of reading strategies is an attribute of successful and experienced readers (both hearing and deaf) and that reading strategy instruction may have a positive effect on reading comprehension (see, e.g., Block, 1986; Duke & Pearson, 2002; Pressley, 2006; Schirmer, 2003b; Thumann 2006).

In my understanding, the distinction between reading skills and reading strategies is based on the level of their conscious application. Reading skills are techniques for, or steps in, processing, decoding, and understanding text, which contribute to reaching the aim of reading (aims may include, for example, acquiring a general or detailed understanding of a text or looking for specific information, etc.). Skills are automatic and administered without deliberate control over them. If such techniques are not (or not yet) fully automatic, they are described as reading strategies (Afflerbach, Pearson & Paris, 2008; Najvarová, 2008). Najvarová (2008) defines reading strategies as "deliberate, focused steps, which control and modify the reader's effort to decode the text, understand the words and build the meaning of the text" (p. 69). Even if readers apply these steps and techniques without necessarily being in conscious control of them, the manner of their work can change when they encounter a more demanding text or meet with comprehension problems. In such cases, a skilled reader is able to return to the deliberate use of techniques and adopt strategies for improving comprehension (Afflerbach et al., 2008).

Foreign language instructors may not have enough training and knowledge to feel secure in reading strategy instruction. However, considering the issues in the reading of deaf persons and also the fact that for deaf people the written form of language is also their preliminary source of linguistic input and that it is the written form of a foreign language which they might use the most in their everyday lives outside the classroom, finding ways of developing reading strategies and skills should be considered a matter of great importance in foreign language instruction.

On the basis of the aforementioned information, I chose to study reading strategies used by Czech deaf readers when reading in English and the applicability and effects of reading strategy instruction in the EFL classroom. For this purpose, a model of reading strategy instruction was designed and introduced in three separate EFL classrooms consisting of one deaf student each. The development of the instruction model and the execution of the interventions are described in the following sections of the paper.

Reading strategy instruction focuses on enhancing readers' conscious work with text processing techniques, i.e., with reading strategies. Since reading strategies, which are or can be adopted consciously, represent the individual steps applied during the process of reading comprehension, they can be more easily observed, taught, and modelled than reading skills. However, my understanding is that the long-term aim of reading strategy instruction is the gradual automatization of reading strategies.

4.1 Reading strategy instruction

For the development of the intervention scheme it was necessary to devise a framework of useful and effective reading strategies. The framework draws on previous research on deaf readers and their reading development (see sections 3 and 3.2), on L2 reading (see especially section 3.3) but also on the results of (fairly limited) research concerning the reading strategies of deaf readers reading in the national spoken language (Schirmer, 2003; Schirmer, Bailey, & Lockman, 2004; Thumann, 2006).

Schirmer and her colleagues (Schirmer 2003; Shirmer et al., 2004) used verbal protocols from think aloud reading sessions to identify reading strategies employed by elementary school deaf students and compared them to the reading strategies observed in skilled hearing readers. They concluded that deaf readers demonstrated fewer strategies, particularly in the areas of monitoring and evaluating comprehension. The authors include a comprehensive and very detailed list of reading strategies in the areas of constructing meaning and monitoring and evaluating comprehension based on Pressley and Afflerbach's (1995) overview of reading strategies used by hearing readers.

Thumann (2006) focused on skilled and successful adult deaf readers, monitored their reading habits and attitudes, and investigated the reading strategies they used. Although the resulting list of reading strategies is

much less detailed than the above mentioned one it is inductive and reflects the actual functioning of successful adult deaf readers.

Other sources for developing the reading strategy instruction model included research studies concerning reading strategy instruction and its effects on reading comprehension in L1 or L2 (Palincsar & Brown, 1984; Salataci & Akyen, 2002; Pressley, 2006). These studies provided inspiration for reading strategies included in the instructions, the implementation of the instructions and the prospective effects.

The resulting system of categorizing the reading strategies that I used is based on the levels of text processing: (a) the level of language decoding (lower level comprehension processing), (b) the meaning construction level and the metacognitive level (higher level comprehension processing, see section 3.1). The list of strategies selected for the use in the interventions is presented in Table 7-1.

Furthermore, two publications, *Strategies That Work: Teaching Comprehension to Enhance Understanding* by Harvey and Goudvis (2000) and *Reading Practices with Deaf Learners* by McAnally, Rose, and Quigley (2007), were used, particularly for practical matters concerning actual reading strategy instruction and the actual content of the individual strategies. The following sections of the paper briefly present selected strategies and describe the actual implementation of interventions with three individual participants.

Table 7-1 List of strategies for the interventions

LANGUAGE DECODING STRATEGIES	
Meaning of an unknown word	Determining the importance of the word for understanding the text
	Guessing the meaning from context
	Guessing the meaning from the word's morphological structure
	Guessing the meaning from the word's phonetic structure
	Skipping the unknown word
Meaning of a part of the sentence / a sentence / several sentences	Reading ahead
	Repeated reading
	Reformulating in L2 (the target language)

	Translating into L1 (Czech sign language, Czech language)	
	Translating or reformulating into another foreign language (e.g., into Czech language in the case of Czech sign language users)	
	Skipping the part of the text	
MEANING CONSTRUCTION STRATEGIES		
Questioning		
Predicting		
Confirming or disconfirming predictions		
Inferring		
Making connections to previous knowledge and experience	Topic knowledge	
	Personal experience	
	Knowledge of the form of the text	
Visualization, other sensorial imaging techniques		
Summarizing and drawing conclusions		
METACOGNITIVE STRATEGIES		
Planning		
Evaluating comprehension, evaluating work		
Dealing with problems		

In the following, first the selected strategies included in the framework for intervention will be explained briefly and then the actual implementation of the interventions with three individual participants will be described.

4.1.1 Language decoding strategies

Reading strategies for language decoding include in particular strategies used to deal with unknown words and to help decode a sentence or a part of the text which the reader finds problematic. Taking into

account the problems deaf readers have in the areas of vocabulary, grammar, and syntax, I consider these strategies crucial for language decoding.

In the classroom the teacher needs to make it clear that every reader comes across unknown words when reading in L2 and should also explain how to deal with such situations. First, readers should to try to determine the importance of the word for decoding and understanding the text in general; reading forward is the main strategy. If an unknown word does not intervene with understanding of the whole text, the reader can choose to skip the word and continue reading. If the reader considers understanding the word to be important for comprehending the whole, the reader can guess the word's meaning using several clues such as the context and other available information (e.g., accompanying photographs and images). Textual clues can be either semantic, i.e., connected to the meaning of the surrounding words, or syntactic, i.e., derived from the role of the word in the sentence structure (McAnally et al., 2007). Other clues for guessing the meaning of a word are its morphological structure and its phonetic structure or pronunciation.

Even though the latter technique of using phonetic clues to guess a word's meaning may not seem readily applicable by deaf readers, my observations of the implementation during interventions indicate that deaf persons have a clear notion of some phonetic structures and use them, for example, to make parallels between L2 and the national spoken language (Czech). For example, upon encountering the unknown word *philosophy* in an English texts one of the respondents (who does not frequently produce speech either in Czech or in English or ask for pronunciation patterns of words in English) used his knowledge of pronunciation for guessing its meaning. The respondent was able to recognize it as an equivalent to the Czech word *filosofie* because he knew that in English the consonant cluster *ph* is pronounced the same as the Czech *f*.

For decoding meaning at the sentence level, a similar procedure can be used for determining the importance of the sentence for understanding the whole text. The reader can try reading ahead as well as re-reading (even repeatedly). Another strategy is reformulating the part of the text in simpler words in the language of the text (L2) or translating it into L1 (for deaf readers this label can include both the national sign language and the national spoken language.) After determining the importance of the part of the text to the understanding of the whole, the reader can also decide to skip it.

4.1.2 Meaning construction strategies

Constructing the meaning of a text predominantly involves connecting the new to the known during text-reader interaction. A reader enters the reading process with previous knowledge and experience, including knowledge of text language (vocabulary, syntax) and text content (connected to the text topic) as well as experience with different forms of text (e.g., text structure). Using previous knowledge and experience enables the reader to ask questions, make predictions about the following content of the text, make inferences about the possible meanings of parts of the text, and draw conclusions about the plot and the topics and themes discussed in the text. Connecting the text to previous knowledge and experience also helps maintain attention and concentration on the text. Readers can connect the information contained in the text to their real-life experiences and to information from other texts they have read. Making a connection to a reader's personal life may also elicit emotions, which may have a positive effect on motivation, attention levels, and memory (see e.g. Lojová, 2005).

Asking questions and making predictions also help readers maintain their attention on the text. When readers ask themselves questions related to the content of the text, it helps them differentiate between what they already know and what they want to learn. Harvey and Goudvis (2000) state that making this distinction enables readers to structure and direct the reading process, to determine the aim(s) of further reading, and to check their understanding. Particularly within school environments, where answers seem to be more important than questions as questions are mostly asked to test knowledge, it is important to emphasize that there is no learning without asking questions, that asking questions is just as important as giving answers, and that not all questions need to be or can be answered. Predicting involves thinking ahead, and anticipating events and information in the text. This strategy makes readers actively engaged in reading and motivated to read through the text and confirm or disconfirm their predictions. Furthermore, readers are able to check their understanding continuously.

Another strategy for constructing meaning is to infer meaning, underlying thoughts, and connections, that is, reading between the lines. No text gives the reader all the information. The actual information contained in the text provides clues that readers can expand upon using their knowledge of the world (which is acquired from experience, other people, other texts they have read, and so forth). People work with clues in such a manner not only when they read but also when they go about their day-to-day life; clues in combination with knowledge and experience help

people interpret what is happening around them and decide how to react to these happenings. According to McAnally and her colleagues (2007) inference helps one determine the underlying themes of the text one is reading rather than just decode the meaning of the individual words and sentences. Readers can also both predict and infer meaning from a text's visual form, the images and photographs contained in books, or the cover of books

Although prediction and inference are related processes, they are distinct. Predictions are made about events and outcomes and can be confirmed or disconfirmed later in the text. In contrast, inferences are made about themes and ideas and are not confirmed by further reading of the text (Harvey & Goudvis, 2000).

Visualizing and creating other sensorial images is another strategy that further supports understanding a text and maintaining concentration on it. Gardner's idea of multiple intelligences supports this strategy (Gardner, 1983).

The final strategy for constructing meaning that can be included in instruction is summarizing. Using this technique, readers summarize text content. This summary can be made in L2 or in L1, and it helps clarify ideas to readers and prepares them for reading the following parts of the text. It also helps readers collect their thoughts on the content of the text and plan how to read further. As Harvey and Goudvis (2000) state readers are thus able to connect new information to the existing knowledge and create original thoughts or interpretations. The ability to summarize and interpret is particularly important for reading nonfiction texts.

4.1.3 Metacognitive strategies

In reading metacognition refers to the readers' awareness of their own reading process and control over it (Schirmer & Williams, 2003). It is connected to the ability to think about and evaluate one's own thinking and working style. McAnally and associates (2007) point out that If readers do not master metacognitive strategies, they are more dependent on help from others (e.g., from teachers).

One of metacognitive strategies is to plan a work procedure for reading. Such planning includes determining the aims of reading and adapting reading style and procedure to these objectives. This technique enables the reader to select and effectively use other appropriate strategies. Planning includes getting an overall idea of the text—that is, about its length, form, and structure—and reading the title and any subtitles, examining the images and other visual parts of the text, and so forth.

Another metacognitive strategy is to monitor comprehension during reading. When applying this strategy, readers should evaluate their understanding of the text, and realize when their comprehension is failing. Subsequently, readers are then able to find the cause(s) of any comprehension failures, such as loss of attention or unknown vocabulary, and apply steps and techniques for rectification. Strategies for dealing with problems include re-reading, finding the meaning of the problematic word(s) or sentences, questioning, and so forth.

The last section of this paper focuses on describing the ways the reading strategies were instructed to Czech deaf students during interventions implemented within their EFL classes.

5 The application of reading strategy interventions

Interventions, consisting of reading strategy instruction, took place during regular semester-long (i.e., 13-week-long) EFL courses for deaf university students. Apart from explicit reading strategy instruction connected to working with texts included in course material, there were no specific changes to the content of the courses or teaching approach and techniques. The communicative approach to teaching EFL was applied and the vast majority of instruction took place in English. The primary means of communication between the teacher and the participants was on-line and chat-based and took place in the Moodle e-learning environment.

At Masaryk University, where the research was conducted, hearing impaired students take foreign language courses at a specialized institute equipped with appropriate learning technology. Courses are held either individually or in very small groups of students with similar L2 communicative competences who share a preferred means of communication (i.e. oral or written and signed).

The participants were three students with prelingual deafness who attended separate one-on-one English classes either twice a week for 90 minutes or once a week for 135 minutes. The students' English levels differed to some extent and ranged from upper A2 to lower B2 CEFR levels (Council of Europe, 2001); English proficiency was determined by a use of an English placement test customarily employed at the university.

The list of strategies in Table 10-1 selected for instruction during the intervention stage of research is general. In the timespan of one semester it was naturally impossible to cover all of the described strategies to the same extent. The different needs of individual students—the differences in their levels of communicative competence in English, their individual

learning styles, and their reading levels—also placed limitations on the full use of all of these strategies. Therefore the list of strategies that were introduced and practised, and to what degree they were focused on, was slightly different for each student.

The interventions were intended to become a natural part of foreign language classes from the point of view of both their content and extent. Reading strategies were instructed to the students in the time regularly devoted to reading and reading skill development. The texts used to instruct these strategies came from the course book or from additional course materials. Reading strategy instruction was prepared specifically for each particular lesson and tailored to the needs of individual students. The objective of the interventions was not to cover all of the reading strategies from the list but rather to give the students an overall idea of existing reading strategies and of the possibility of consciously applying various techniques to help readers achieve their aims in reading. The interventions also aimed at giving the students the opportunity to follow the thoughts of an experienced reader during reading and at having repeated hands-on practice with some of the strategies as recommended by Duke and Pearson (2002).

The main principle of reading strategy instruction was explicitness. Instruction did not consist of theoretical explanations but the transfer of practical knowledge; it also provided space for experimenting with and experiencing the strategies. One of the basic instructional techniques used was teacher modelling. The teacher modelled a reading strategy or several strategies by verbalizing thoughts while reading particular texts. This way the students had a chance to follow the reading process of an experienced and successful reader in L2. They were therefore made aware of various techniques that they can use. In addition, the students were reminded that even experienced readers have problems understanding some parts of text, encounter unknown words, lose concentration, and so forth. Moreover, students could see that successful reading does not mean problem-free reading but rather active reading with comprehension monitoring.

After experiencing the use of a reading strategy and occasionally a short discussion on the nature of the strategy and its usage, students engaged in some controlled practice together with the teacher. Gradually, the teacher withdrew and the students started using the strategy independently as proposed by Harvey and Goudvis (2000). All of these steps did not necessarily take place within one lesson but rather in the course of several lessons. Strategies were not explained and taught separately one after another but were introduced in various combinations so that the instruction corresponded with their real-life use. Each lesson focused on one or two strategies that suited the in-class reading

assignment. The teacher also mentioned different strategies that could be used, thus allowing students to repeatedly practice various strategies. Because there was the potential to apply multiple strategies, classroom practice reflected reality.

It was clearly explained to the students that the prospective aim of the implemented reading strategy instruction was to make reading strategies a natural, automatic part of the students' reading process. The difference between real-life reading and in-class reading was not in the use of strategies as such but rather in the level of their deliberate use, i.e. in the class much more conscious attention is given to choosing and applying the reading strategies than readers would normally do in reading outside classroom.

It is clear that the reading strategy instruction described in this chapter can take place only when the foreign language instruction of the deaf students is realized in an appropriate environment which takes into considerations their needs and abilities.

5.1 Instructing metacognitive strategies

To better illustrate the actual procedures adopted during the interventions, the following part of the paper presents the instruction of the metacognitive strategies for evaluating comprehension and dealing with comprehension problems as it was employed with one of the participants.

First, the teacher chose a suitable book written in L2 to model these strategies: *Everything is Illuminated* by Johnathan S. Foer (2002). This novel contains rather complicated language, particularly due to a specific dialect used by one of the main characters, and understanding it requires a certain amount of previous knowledge. The teacher read several paragraphs and thus demonstrated a real-life situation in which she, as a reader, encountered a number of unknown words and comprehension problems. The teacher modelled how she was continually evaluating her comprehension during the reading process. When she realized her reading comprehension had failed, she then applied suitable strategies to solve the problem.

For example, the teacher-reader re-read previous parts of the text, read ahead and then came back to re-read the problematic part of the text, and employed different techniques to guess the meaning of unknown words based on context or morphological structure. The teacher thought out loud, verbalized her thoughts (mostly in English but in justified cases in Czech as well) using the online chat program, and communicated with gestures,

occasional sign language, and finger spelling. Thus, the teacher modelled the comprehension problems of a proficient L2 reader.

Following the modelling session, the student was asked to read a different fairly complicated text adapted from an internet journal on cycling. The choice of text was based on the individual student's skills as well as personal preferences and interests. The text had actually been already introduced in the previous lesson, where the student had read its title and the first few paragraphs. During that lesson reading strategy instruction had focused on activating and employing background knowledge and also on applying strategies for decoding unknown words.

After turning to the text on cycling, the teacher stressed the importance of being aware of the reading process, recognizing breaks in comprehension, and applying appropriate strategies to deal with comprehension gaps. Afterwards students completed a "comprehension monitoring worksheet" as a homework assignment. The worksheet included a table with two columns: one labelled "My comprehension problems" and the other "What I did do to deal with them." Students read their selected text and noted and described any comprehension problems. Then they indicated what steps they took to restore understanding.

The worksheet was discussed in the following lesson when the strategies for evaluating comprehension and dealing with comprehension problems were further practised.

6 Conclusion

Reading comprehension is a complex process based on text–reader interaction that results in a coherent mental representation of the text in the reader's mind. This process is influenced by various factors and functions; when reading a foreign language, even more factors and functions come into play. In foreign language education of adult learners teachers are used to assessing reading by asking reading comprehension questions and testing, yet, sometimes they tend to slightly neglect the process relying on the reading proficiency acquired in the learners' first language.

However, understanding this process could help uncover the sources of difficulties that may lead to unsatisfactory products of reading. Comprehension questions which are often a part of reading instruction in an EFL classroom reveal the problems with the product, however say very little about the process.

As many deaf learners struggle with texts in their national spoken language, they often fail to comprehend texts written in a foreign

language. In the first part of this chapter, I described some of the reasons for this failure across the development of reading comprehension as well as some of their manifestations in the product of reading of deaf learners. Based on various research findings, I then suggested that reading strategy instruction in EFL classes for adult deaf readers might be beneficial. The study of the reading process of deaf EFL learners and of the effects of reading strategy instruction comprises the research part of a doctoral project this chapter forms a part of.

The second part of this paper describes the development of the reading strategy framework used in the instruction of research participants and the actual interventions implemented in the EFL classes with the participants.

Clearly, an intervention employed during one semester does not present a solution to the complex problem of deaf reading in a foreign language. It might, however, introduce the possibility of reading skills development.

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CHAPTER EIGHT

VOCABULARY TEACHING STRATEGIES IN ENGLISH AS A FOREIGN LANGUAGE CLASSES FOR DEAF AND HARD-OF-HEARING STUDENTS

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1 Introduction

In the methodology of teaching foreign languages to deaf and hard-of-hearing (D/HH) students (surdo-glottodidactics) usually general teaching and learning strategies are used and regarded as effective. These strategies are varied and depend upon the student and teacher's characteristics and preferences, the dominant teaching approach within the institution or contemporary methodological trends. This tendency is an adequate one, and there are actually no special methods or strategies of teaching and learning that should be used exclusively with the group of D/HH learners. On the other hand, we cannot presume that foreign language teaching should not be in any way modified in classes for D/HH students as this would mean denying this group a proper educational support. The general methodological approach and teaching strategies should be carefully and extensively *modified and adapted* into teaching techniques, activities and classroom materials so as to meet the specific needs of this group. In the field of surdo-glottodidactics, there still exists a shortage of such methodological modified ideas, techniques and materials that might be used and shared by the teachers of D/HH students. Therefore there is an urgent need for publications presenting particular methodological solutions and methodological empirical studies.

The aim of this chapter is to present D/HH students' achievements and difficulties in learning foreign language vocabulary and a set of valuable teaching and learning strategies that might be used during foreign language classes with this group. The source for the description of the

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difficulties and the strategies enlisted is the author's 14-year participatory research in a group of 40 D/HH university students who had been learning English as their foreign language in the years 2000-2014. The program *English for the deaf and hard-of-hearing* was conducted by the author at John Paul II Catholic University of Lublin. All of its participants had a hearing loss of 70 or more decibels, came both from hearing or deaf families and were educated either in mainstream schools or in special institutions for the deaf. None of these demographical characteristics differentiated the groups. Their advances in foreign language learning depended mostly on their personal characteristics: the level of motivation, educational expectations and the ability to structure their learning so as to achieve success. All of them successfully passed their university foreign language exams and reported achieving their personal goals as far as learning a foreign language is concerned.

2 Challenges in learning foreign vocabulary by D/HH learners

When we work with D/HH students it is necessary to remember that their main problem is not only the impossibility or restricted possibility to get access to the audio component of the language but first of all to understand the meaning of the words and expressions. Because of this, learning and teaching a foreign vocabulary is of the utmost significance as it breaks the most annoying barrier that is met in education by the D/HH students.

In his book on EFL methodology Harmer (1991) suggests that when teachers think of learning a new language they usually mean learning the vocabulary and grammar of it. However, it is a commonly known fact that grammar gives language a structure, but vocabulary "provides the vital organs and the flesh" (p. 153). In the past years grammar was regarded as a dominant part of language learning (e.g. in the Grammar Translation Method). Later the significance of vocabulary was commonly stressed in various teaching approaches, alongside with communication abilities and active language use in different social contexts (e.g. communicative approach or direct learning method). Today learning vocabulary no longer means learning a set of words by heart (as it used to be), but learning it by negotiating the meaning in group work, guessing the meaning from the context, learning new words not only systematically, but also incidentally.

In such a context a basis question may arise: What does it mean to *know* a word? Wallace (1982) suggests that this process is complicated

and means that the student: 1. Recognizes the spoken and written form of a word; 2. Associates it with a certain object or word content; 3. Uses it in a proper grammatical form; 4. Pronounces it in an intelligible way; 5. Writes it correctly; 6. Uses it in a suitable context; 7. Is aware of its connotations and collocations; 8. Uses it in correctly constructed collocations with other words. This kind of language learning perception was described thoroughly in the lexical approach promoted by Lewis (1997). According to the principles of this trend vocabulary is prized over grammar and it is presumed that an important part of learning a language consist of being able to understand and produce lexical phrases. Lewis postulated that students should learn such lexical chunks as they make a large part of everyday discourse. Later the researchers added that in order to achieve the vocabulary competence it is not enough to understand the meaning of the word just from the context, but to get to know the word on the phonological, morphological, semantic and syntactic levels (cf. Almela, Sanchez 2007, Harmon, Hedrick & Wood 2005).

Deaf and hard-of-hearing students usually have some problems in learning foreign vocabulary (Domagała-Zyśk, 2009, 2013a) and this is mainly connected with their difficulties in mastering their national spoken language. Having a restricted repertoire of words in their national language they have to fight for every single word in their own and other languages. The majority of D/HH children (about 95%) are born in hearing families and are usually advised to learn the language of their parents. Not having a full and unrestricted access to speech they do not acquire new words, but they *are taught* them. This results in a poorer vocabulary and mistakes in matching the words to their full meaning (making mistakes of narrowing or widening the meaning of the words, Krakowiak 2012). Psycholinguistic studies show that D/HH children who possess the same level of intellectual potential as their hearing peers usually get lower results in vocabulary tests (cf. Lederberg 2005; Lederberg, Prezbindowski & Spencer, 2000), smaller repertoire of vocabulary (Ouellet, Le Normand & Cohen 2001), especially words used rarely (McEvoy, Marschark & Nelson 1999) and difficulties in fluency of vocabulary memory operations (Marschark & Everhart 1999). This applies to children of any age and manifests itself as reading and writing difficulties during their school years. At the same time, learning foreign vocabulary is regarded by the students as a relatively easy part of a foreign language course (cf. Domagała-Zyśk, 2013a). This can be explained by an observation that in the process of learning a foreign language D/HH learners usually repeat the stages of learning vocabulary in their national spoken language. This fact might have important motivational significance

and serve as an incentive to master vocabulary in both national and foreign languages.

2.1 Learning the written or the oral form of words?

D/HH students usually rely rather on writing than on speaking or listening. They usually learn to read and write early (sometimes as early as at the age of 3-4, see Cieszyńska, 2001) and use these skills as the main means of learning about the world and communicating with it (cf. Albertini & Schley 2005). Speech, speech-reading and listening are means of communication in native languages only for a part of D/HH persons. To be useful, these means of communication need special external conditions: good visibility, good quality of the interlocutor's speech and no background distractions. These conditions are not easily met, especially in mainstream classrooms and difficult to achieve in everyday spontaneous communication. As a consequence, D/HH students studying foreign languages learn first of all to recognize the written form of a word. They rarely have the chance to match it with the spoken form. It often happens that if a D/HH student knows a written word and then comes across a spoken form of a word he learned, he is not aware that these are two different forms of the same word and treats them as two separate lexical items. Such a situation creates numerous problems. First of all, as many linguists argue (cf. Blamey, 2003; Krakowiak 2012; LaSasso, Crain & Leybaert 2011; Leybaert, 2000) the spoken form is naturally the first one that has to be met and acquired by a student to learn and know how to use the word. If a student meets only the written form, it usually means he sees it in a formal written context. Not having the possibility to use this new word in real dialogues, exchanges and conversations, the students tend to *learn about the language* but *not the language.*

It is clear that students whose preferred means of communication is sign language do not learn the spoken form of a foreign language (Domagała-Zyśk, 2013c). The goal of D/HH students with no or limited residual hearing is thus usually to learn to read and write in a foreign language. Researchers and language teachers e.g. in Norway (cf. Pritchard, 2013) argue for the benefits of introducing BSL first as this enables them both to fulfil the foreign language requirements at school and gives a real and empowering possibility of communication with D/HH people from abroad. Still, for majority of D/HH students the written form of the word is the basic form of the lexical item that has to be learnt. Writing is usually the D/HH students' strength and the teaching process should be based on this. D/HH students present good visual memory skills (cf. Domagała-

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Zyśk, 2013a; Emmorey, Kosslyn & Bellugi, 1993; Todman & Cowdy, 1993) and it is a good prognosis for success in memorizing the written form of new lexical items. The process of visual memorization can be supported by using different visual forms like pictures, photos, tables, charts, diagrams and other such aids. Using technological devices, such as social networks, online forums or chats as an element of a FL lesson structure can be also an effective tool (Domagała-Zyśk, 2013d)

While deciding about the answer for the question posed as a title of this paragraph it should be stressed that the teacher's role is to provide for the students *the opportunity* to get accustomed to both the written and oral form of the word–only if it is manageable and wanted by a student. It might be possible first of all when the teacher uses clear lip-speaking. Today the majority of persons with hearing loss use speech and speech reading techniques for communication with the hearing society. Consequently, we have no right to limit their education and use only the written form of a foreign language. If it is not possible for the student to recognize the words by lip-speaking, we can use different technological tools to present oral forms of a language. Some teaching programs provide a set of free texts in the form of clear speech (e.g. SignOne! and SignOnOne, cf. Dotter, 2008). These short films can be watched by the students thus helping them to learn the shape of the word and to recognize it more easily in everyday communication. Regular technological materials prepared for teaching in mainstream groups are also a great help, especially in the forms of tape-scripts added to regular audio or video dialogues. The important thing is that the tape-scripts are not printed on the last page of the course book, but are presented on the computer screen in real time–so the students can listen to a conversation but at the same time–see the texts with the spoken phrases highlighted the moment they are spoken. Thanks to this, the student not only gets to know the vocabulary, but also to know when, in which circumstances and in conversation with whom certain lexical items can be used. Such teaching is multi-sensory in its nature and this helps to learn effectively. The student not only reads the material (as it used to be with the traditional printed tape-scripts), but also watches people using certain structures, gets some access to them speaking, observes the people's behaviour, learns the words and expressions and associates them logically with certain objects or word contexts.

2.2 Learning the grammar of the vocabulary

In order to know the lexical item it is indispensable to know what are the correct grammar forms of a certain word. Grammar is difficult for majority of D/HH students in their national language. Those who are educated in their national language or within a framework of bilingualism are sometimes really exhausted as they have been learning different rules and exceptions. It is really difficult for them to sort the things out. Such students are de-motivated to learning a foreign language well, and try to learn only the basics, so as to communicate quickly and in simple language, even if it is not correct. They do not express the need to master the language and it stops their achievement level.

In order to support the students one must take care in presenting the vocabulary not only in its basic form, but also in the true diversity of the language. In other words, not only the breadth of vocabulary knowledge, i.e. the quantity of words learners know, but also its depth, i.e. the quality of their vocabulary knowledge (cf. Paribakht & Wesche, 1996). Mastering the quality of their vocabulary knowledge D/HH students need time and individualized support. The more real-life contexts and practical exercises in using the foreign language as a means of real communication, the better are the students' results. This statement can be supported by achievements of my D/HH students participating in EFL classes in 2000-2012. Oral and written English production of EFL classes participants shows diversity of English structures used (good quality of vocabulary knowledge) and richness of their vocabulary (cf. Domagała-Zyśk, 2013b, pp. 176-177).

2.3 Word pronunciation

By pronouncing the word aloud correctly the students have one more channel to learn and revise vocabulary. D/HH persons who prefer to use sign language in communication usually do not learn pronunciation of either their national and consequently foreign languages. However, the majority of students with hearing loss nowadays use speech to some extent and they want also to learn to pronounce new words (Domagała-Zyśk, 2001; 2003, 2013a).

It is natural that D/HH students' pronunciation might not be ideal, but we do not have any right to forbid them to try to master it to the extent they are able to master it. Students' unclear pronunciation should not discourage the teachers from practicing the vocabulary aloud with them. If a person is stuttering or experiencing a speech disorder, nobody even thinks of discouraging them to use their national language. Surely, it would be inhuman to ask somebody not to speak because it made

somebody feel "uncomfortable" –and such situations are reported by our students. The same rule should be applied to the D/HH students.

D/HH persons do not hear their own voice or hear it imperfectly and they are also not able to control their own voice. As a result it is not possible for them to assess whether they are pronouncing a word correctly or not, which means the D/HH students have less possibility to revise and exercise their vocabulary. However, if they wish to speak a foreign language, they have every right to do so and to get the teacher's support for learning the correct pronunciation. Also this desire is frequently expressed by the D/HH student themselves: they want to speak a foreign language and wish to be taught this. In Domagała-Zysk's (2013a) research, out of a group of 35 university students with severe and profound hearing loss, 28 persons (80%) wished to use speech in communication in English as a foreign language. D/HH students represent different levels of speech intelligibility. What is important is to try to cooperate with their speech therapists and to discuss which sounds could be improved by exercise and which could not as a result of a certain medical condition.

In mastering the pronunciation of words, the cued speech method can serve as a very useful tool (cf. Podlewska, this volume). The cues were adjusted to several languages (e.g. French–Le Languagé Parle Completé (LPC) or Spanish–La Palabra Complementada (LPC) and thus may serve in learning foreign languages. The main idea of cued speech is to show with a hand shape and a hand position those language elements which are not well visible on the lips–e.g. words like *baba, papa, mama* look the same, but if we speak them with different handshapes for *m,p,b*–it is possible to read on the lips which word was spoken. Podlewska (2013) suggests that while getting to know a new word, especially if it is an important one and used regularly, it is advisable to prepare *sound grids*. This is a visual way of presenting a written form of a word, the number of its syllables, consonants and vowels and also the way it is pronounced with the use of cues. Such analysis helps the student to get to know better the structure of a given word and the rules for its pronunciation.

2.4 Contexts, connotations, collocations

Learning a new word means also that the student is able to use the word in an appropriate context. This may create a problem for the D/HH persons, as their language experience is usually narrower than that of their hearing peers. They are physically not able to use effectively hearing aids or CI and participate in conversations for so many hours as the hearing

persons can. If they use a sign language, their communication activities are restricted to a smaller than wanted circle of relatives or colleagues. All this means that even knowing the words they may have problems in using them in a proper social and cultural context. The same difficulties are usually met while using the words in correct connotations and construct collocations with other words.

Foreign language classes have a special meaning: when we learn a foreign language we have to learn about some social, cultural or natural phenomena (e.g. *famine, women's rights, suffragettes, the Berlin Wall, shift work, hippopotamus' adoption*). To speak about them using a foreign language one has to know them and to be able to name them in their native language. It is not always like that and D/HH students during their foreign language classes not only learn the foreign names of these phenomena, but get to know about them for the first time in their life.

D/HH students have a narrower vocabulary in their national language and very often do not understand some vocabulary contexts used during foreign language classes (Domagała-Zysk, 2006). This slows down the teaching process but for the students it creates a chance to get to know words and expressions they had no chance to learn in their national language.

2.5 Hearing vocabulary in classes for D/HH students

There is a certain type of vocabulary that is especially difficult for D/HH students. It was noticed as early as in the 1970s (Heinen, Cobb, & Pollard, 1976/1993) and observed during my classes with D/HH students (Domagała-Zyśk, 2009). These are the words connected with auditory sensations. It is well known that if we know a certain part of reality, we can quickly understand the vocabulary used to describe it and use it fluently. When somebody likes music and listens to it regularly, words like *transpose, triplet* or *andante* are well known to him. D/HH persons learning any phonic language have to acquire and use words that are completely *unrealistic* to them and it is really hard work to get their right meaning. These kinds of words were grouped by Domagała-Zyśk (2009) into six categories and include: 1.Words and expressions describing a person's voice: *scream, cry, hum, whisper, to say sweetly, to say softly, to shout cheerfully, ask anxiously, say calmly; 2*. Animals' voices: *miaow, squeak, bark, roar, chirp; 3*. Natural sounds*: rumble of thunder, echo, blowing wind, falling rain; 4*. Social events or situations where auditory element is a dominant one: *auditions, gold record, number one hit; 5*. Music words: *play the flute, sing, hum, buzz, croon, twitter, zoom; 6*.

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Background noises: *car brakes screeching, a siren wailing, to click, a tap dripping, a clock ticking, knocking, a doorbell ringing.*

Topics about music, music programs on TV and favourite singers have a well-established position in all language courses. Listening to music is definitely a natural activity of a vast number of young learners and they like sharing their opinions on this topics. For our D/HH learners these create a certain problem: for majority of them music is an unapproachable and alien world, though some of them try to download music and try to get the flavour of it. A lot of new cochlear implants users write on their blogs that not being able to listen to music and sharing this passion with their peers was for them a serious source of depression and alienation and they perceive the possibility of enjoying music after implantation as one of the most important assets of CI.

While discussing music and listening topics with D/HH learners the teacher should be very sensitive to their individual needs. Some of the students overtly refuse to learn about listening and music and do not wish to touch these topics–they would prefer omitting this vocabulary. Others like being treated as majority of FL students and sharing their views on these topics. They want to work out the meaning of the words and try to learn to distinguish them. For some of them FL classes create a possibility to incorporate these words into their internal vocabulary as they did not have a chance to learn it earlier in their national language. In each case the teacher should take into account the fact that in FL classes for the D/HH users music and listening vocabulary forms a group of   "sensitive" vocabulary that has to be touched with deep understanding of the life situation of the students.

3 Strategies of learning and teaching foreign vocabulary

In achieving success in foreign language learning, it is important to use effective strategies. Oxford (1992/1993) explains that they are   "specific actions, behaviours, steps or techniques that students use to improve their skills in the language they are learning" (p. 18). Thanks to these strategies, the process of learning a foreign language becomes easier, quicker, more independent, joyful and effective. Learning strategies are inseparably connected with teaching strategies (Laurillard, 2002): that is why it is reasonable to inspect and describe them together, as *learning and teaching strategies*. These strategies should be studied as dynamic phenomena: teachers are often changing their strategies and adjusting them to the students' abilities and their own preferences. Strategies are not innate, but

they are acquired by the students, so they have to be presented by the teacher and the students must be encouraged to try them. This means that students during their education are faced with a series of strategies and they are usually exploring and accepting some of them for further use.

All these strategies might be applied and serve well in the process of teaching and learning foreign languages to D/HH persons. Nevertheless, for this group of students, it is worth to use some specialist strategies that may make this process even more effective and joyful.

3.1 Vocabulary Personalization

The first of them is Vocabulary Personalization. D/HH students should be made aware that while learning a foreign language they should personalize their foreign vocabulary and learn those words and expressions which they are sure will be useful to them. Of course, each foreign language course has its own rules and teaching cannot always be personalized to its maximum (there are tests, exams and different formal objectives to be met). At the same time when students are personally motivated to learn a certain set of vocabulary that they see as their personal goal, they are able to do it much more effectively. A technique that might be supportive in this process is *Personal Vocabulary Journal*, PVJ (Wood, 2001). Students are asked to prepare their own dictionaries consisting of those words which they want to know and which are not taught in the course. The words can be connected with a sport practised by the student, his temporary job requirements, last holiday experience, local Deaf Culture events etc.

As it was mentioned before, in teaching a foreign language, we must understand well the fact that oral languages are usually not *acquired* by the DHH individuals–they *are taught* every single word of it. It is not possible for them to pick up words spontaneously while listening to music, to the radio, overhearing the conversations, dialogues or quarrels. They pick up words during school classes, speech therapy classes and meaningful conversations with their carers. In such circumstances the vocabulary repertoire might be incomplete therefore the first task of a foreign language teacher is to check if the student understands in his native language the vocabulary that he plans to teach. While learning a foreign language it often appears that even adolescents do not know the particular vocabulary and they need explanation (in our classes for university students these were words such as *aerosol, fiord, couscous, greenhouse effect, lagoon, irritation, conclusion, shift, nephew, bossy, breeze, night owl, full lips,* Domagała-Zysk, 2013a, p. 199). Students for

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whom sign language is their preferred means of communication usually also need some explanation here as the meaning of words in oral languages do not always match their meaning in sign language–sometimes a particular sign might have several oral synonyms, sometimes the oral and sign meanings differ as to the word's precise connotation. In this sense a foreign language class has an added value–it creates a chance to revise and extend the student's vocabulary in his first spoken language

Vocabulary personalization also means that the teacher has to choose such a set of vocabulary as would be most appropriate to the student. It should be as far as possible connected with the student's everyday experiences, his hobbies and interests. The vocabulary to be taught should be divided into a set of significant, indispensable words and those that are used much more rarely and thus they are not so necessary in regular communication. Those words that are classified as significant have to be regularly revised and used in different contexts (cf. McEvoy, Marschark & Nelson, 1999). DHH students do not only have problems with acquiring new words, but also in remembering them, as–once again –their chances to rehearse them spontaneously are scarce. DHH persons usually learn foreign languages only during the FL class, so they need more formal occasions to practice foreign vocabulary than their hearing peers who can use it spontaneously in different contexts. In the FL learning process it is very important to appreciate the students' efforts to use a foreign language for everyday regular communication. When they need and want to speak about their personal experiences it is much more motivating for them to ask their teacher for a new vocabulary describing their experience and thus learn new words and expression. Some examples of such personalized statements are enlisted below. They were all produced by D/HH students during English for the deaf and hard-of-hearing classes at KUL. The statements have not been corrected so as to give a real insight into the students' foreign language usage:

I used to be shy and calm but now I am a little crazy.
My sister is lazy. I am not lazy. My mother is not lazy. My father is sad, hungry, tired.
My nephew name Bartek. My niece Ola is 12.

Students usually want to use FL in communication with the teacher since from the very first class they want to greet the teacher in a foreign language and to use it in informing them about different organizational issues. The teacher's task would be to appreciate and encourage such

behaviour as this helps to master the language. Examples of such students' message can be read below:

> *Dear Teacher. I cannot come on Monday. I am headache and sore throat. I apologize.*
> *I wish you happy Christmas and many health. You and your husband.*

When using the Vocabulary Personalization strategy it is advisable to base it on Vygotski's idea of the zone of proximal development (Vygotsky, 1978). It is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (p. 86). For the FL teachers of the D/HH who play the role of enablers (Tatar, 1998) it means they should concentrate not only on the student's abilities, but also on their potential–in a way perceive the student not as he/she is today, but as they may function tomorrow. The teacher should be one step ahead, organizing tasks that are not doable by the students themselves, but which can be performed with the teacher's support. Only then will the teacher's expectations not seem to be too high and at the same time they will be challenging and fruitful.

3.2 Vocabulary Emotionalization

The second strategy might be called Vocabulary Emotionalization. Linguists agree that we remember better those words that were presented to us not only clearly, but also with an emotional component (Kaczmarek, 2001, p.20)–the more moving the learning situation is, the better the vocabulary is memorized. An example of using this technique is shown below. The teacher knows that Paul has strong emotional bonds with his sister and he likes speaking about this relationship. An everyday shopping situation is used to introduce new words: *old-fashioned, V-neck sweater and turtle-neck sweater:*

> *T: Paul, what did you do yesterday?*
> *S: Nothing special. I did shopping.*
> *T: What did you buy?*
> *S: A sweater.*
> *T: Did your sister like your sweater?*
> *S: (smiling) No, she said it is ugly because people do not wear such sweaters.*
> *T: What do you mean–such sweaters?*

S: (tries to explain in sign language and using gestures that it is a cardigan).
T: So your sister thinks cardigans are old-fashioned? Does she like V-neck sweaters or turtle-neck sweaters more (teacher shows photos of different types of sweaters found quickly on the internet)?
S: She doesn't like V-neck sweaters and turtle-neck sweaters. She want I wear a shirt and a suit every day.

It is also very important to create a positive atmosphere as it also supports learning. When the student feels safe, he is more eager to show his full potential. D/HH students usually experience more emotional strain than their peers: they feel frustrated when they are not able to communicate freely, they usually have to fight for their rights and they feel excluded. These emotions also influence their learning capability. Foreign language classes are often taught in small groups and it makes possible to establish a more personal relationship between the student and the teacher. D/HH students like to get to know their teachers. If they learn in a mainstream group they are usually excluded from the peer gossip, so the only way to get information is to ask the teacher directly. Questions like „How old is your daughter?", or "Have you been born in Lublin?" should therefore be treated not as a sign of nosiness, but a sign of communicative language use–language is learned in order to communicate. When students feel emotionally safe they are motivated to use language; their progress is more dynamic. In the following, classical dialogue a student reversed the roles (with a simple expression *And you?*) as her curiosity was greater than her shyness:

T: How many brothers and sisters have you got?
S: I have one brother.
T: What is your brother's name? Where does he work?
S: And you? Have you a brother?
T: No, I haven't. But I have got three sisters.
S: Three sisters?! I haven't got three sisters.

3.3 Word Semantic Analysis

The next effective strategy is Word Semantic Analysis. Learning vocabulary in a foreign language might be difficult for a D/HH individual because it is not easy to get the exact, precise meaning of a new word or expression. They often commit mistakes of widening or narrowing the meaning of a word (Krakowiak, 1995). While we learn a new language,

we learn at the same time about historical, social, political and natural phenomena. Some of these phenomena might not be known to D/HH individuals. Second language teachers can observe significant gaps not only in vocabulary in a FL but also in the first language of the student. It is a good chance to improve the student's general knowledge and vocabulary.

D/HH students should have more opportunities that are organized by the teacher to practise and revise vocabulary. An important tool here is communication and information technology (cf. Poel & Swanepoel, 2003). Thanks to the Internet and on-line databases it is much easier now–relative to even a few years ago−to find a visual context for new words (it is easy to find a picture of e.g. a tree house or a vending machine) and to practice it with the use of numerous exercises, tests or online courses.

3.4 Word Morphological Analysis

Word Morphological Analysis is the last strategy which I would like to recommend in this chapter. Morphological analysis has a special significance in English, as it has been estimated that more than 40% of new English words are formed with the use of suffixes or prefixes (Algeo, Pyles, 1982). The art of word morphological analysis helps the students to understand the language better and to be able to get the meaning of new words on the basis of knowing their morphological structure. D/HH students are often conscious language users. They have the experience of attending speech therapy classes where they learn the language structure. While learning to read and write they gain thorough knowledge about word formation, paraphrasing and rules of pronunciation. An example of such analysis done during my classes might be chains of words: *care-careful-careless-carelessly-carer*; *wise-wisdom-wisely*; *polite–impolite–politeness–impoliteness; politics–policy-political-politician.* This strategy might be especially fruitful with students using cued speech: while cueing they learn to recognize the phonological and morphological structure of words.

4 Conclusion

The aim of this chapter was twofold: 1. To analyse D/HH students' chances and difficulties in learning foreign language vocabulary and 2. To propose a set of effective teaching strategies for foreign language classes

for D/HH students. The main message concerning the issue of foreign vocabulary learning and teaching for the group of D/HH students is that despite many disadvantages (like lower level of national language vocabulary, restricted access to the spoken form of words, difficulties in reaching the exact and precise meaning of the words) D/HH students are able to master their foreign language vocabulary and use it effectively. Four teaching strategies were described and analysed thoroughly: Vocabulary Personalization, Vocabulary Emotionalization, Word Semantic Analysis and Word Morphological Analysis. It is not a closed set but rather a kind of methodological incentive. Using these strategies should help teachers to work out their own creative and effective methodological tools that may motivate their D/HH students and support them in consistent, systematic and successful foreign language learning.

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CHAPTER NINE

VISUALISING AS THE MOST EFFECTIVE WAY TO TEACH EFL TO DEAF AND HARD-OF-HEARING STUDENTS

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1 Introduction

This study is based on my almost ten years of experience as a teacher of English as a foreign language (EFL) to deaf and hard-of-hearing students. It is the result of my observations and conclusions on teaching and focuses on various problems and solutions found by a teacher who was ready to take up this challenging job. The text is divided into two parts according to the logistics and the design of the course itself. The first part discusses the preliminary features of the group under question and the various conditions one needs to provide prior to the beginning of teaching, such as the room, the classroom settings, equipment, and materials. The second part talks about the course and various solutions to problems that I have encountered over the years and still come across in a 15-member group of students who started their studies at the university a year ago. These people come from very different socio-economic and educational backgrounds and possess different levels of speaking and language skills. This study puts *visualising* into the focus as the most effective way to teach deaf and hard-of-hearing persons, since it takes into consideration their ability to do something rather than their disability that is their hearing impairment.

2 Background

It was in 1989 when for the first time in the history of Poland Siedlce University of Natural Sciences and Humanities admitted disabled students

to regular day time courses. Ten years later I became the Head of the Centre for Education and Rehabilitation of Disabled Students. As the head I had to come forward with solutions to problems and queries put forward by the students. One of the problems demanding immediate attention and solution was organising foreign language courses for the deaf students as they were not able to attend regular English classes. Regular classes feature exercises which are suitable for hearing students, not to mention the fact that these classes usually consist of 25–30 students–a situation in which a deaf student would feel lost. Until 2001, deaf students were exempted from foreign language courses in Polish colleges and universities. English, however, was in demand, so without much hesitation I took up the challenge and departed on what I call a journey into the unknown as we had absolutely no experience in this field. It is interesting to note that there was no literature available about teaching foreign languages to deaf persons. I have an M.A. in Pedagogy with a specialization in Special Needs Education, which was of great help. My first attempts were to teach along with a support teacher, an ESL teacher who assisted me on a voluntary basis. It was very helpful as we were able to cover a lot more material during a lesson because in effect there were two qualified teachers catering for the needs of a group of students. It is a well-known fact that due to the applied processes, such as code-switching or presenting information in writing, transferring knowledge to deaf and hard-of-hearing people is much more time-consuming than teaching regular classes, where a lot of things can take place simultaneously.

After a year the situation had to change as there was no possibility for creating a proper position for a *support teacher* at the university level in Poland. Such counselors could officially work only at middle and secondary school levels. As a consequence, the role of the support teacher in my classes was taken over by a smart board and sign language interpreters. It was but natural that I tried to find interpreters who had good English language skills because of the deficit I felt after the support teacher was gone. I agree with Lang (2002), according to whom interpreters should have a basic knowledge of the topics they sign. The interpreters were not only my means of contact with the students but also helped the students, who could clarify their questions with the interpreter when I was occupied with another problem. This ultimately boomeranged: I soon felt that I was being left out as most of the queries were now being addressed to the interpreter straightaway. This unexpected situation forced me to start learning to sign. Two years ago I started teaching without the help of sign language interpreters. In a short span of time I noticed that my contact with the students became much better. (Gulati, 2013). Reaching the stage I am at now has been a long evolutionary process: working with

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a support teacher, introducing new equipment, looking for the best interpreters, applying different tasks for students, using presentations, looking for good practice, inviting native speakers, improving methods: one solution giving way to a better one. In the following I am going to present some of the significant lessons I learnt along the way. By sharing the experiences I gained with the group of deaf and hard-of-hearing learners, which will be described below, I hope to be able to help colleagues who teach in similar contexts.

3 Orienting data about the group

An important preliminary task for teachers is to understand what type of students they have. In order to know my students better I prepared and administered a questionnaire. It was divided into three parts inquiring about family background, educational background and the students' English language background. The questionnaire was administered at the beginning of the course and revealed that the course participants come with different levels of disability, with different hearing aids and language skills. The group I am writing about consists of 15 students out of which five are deaf (>90 dB), nine are hard-of-hearing (seven >70dB, two >50dB), and one is deaf in one ear. Nine of them have been hearing impaired from birth and six since early childhood, i.e. since the age of two. Eleven of this group wear hearing aids, two have cochlear implants and two have no aids. The questionnaire they filled in also shows that they are all children of hearing parents except one whose father is deaf. Two students have deaf siblings. All these facts determine the way they communicate on a daily basis. Five of them use sign language, four use sign language and speech, five only speech and lip reading, one uses Signed Polish. Some of them speak, some do not want to speak, whereas some speak Polish but no English. Some know Polish Sign Language (Polski Język Migowy: PJM), some Signed Polish (System Językowo-Migowy, SJM), and yet others even know the basics of American Sign Language (ASL). All course participants come from different educational backgrounds. Two of them never had English, only German as a subject at school, and all the rest had a different number of hours of English at school, from one to four a week during their secondary school education. At school they were exempted from listening and speaking exercises. Taking into consideration all the preliminaries mentioned above, I reached the conclusion that having a group of students whose level of impairment is "educationally significant" (Yoshinaga-Itano & Downey, 1996, p. 63), I

had to create appropriate conditions, so that they could make full use of the course which lasts only two semesters with a total of 180 hours of teaching.

4 Why visualise?

Having their sense of hearing compromised, most deaf and hard-of-hearing students have their sense of sight enhanced. Thanks to the five senses most human beings possess, people do not have one but a combination of learning styles as preferred ones. Deaf and hard-of-hearing people learn better when information is presented visually (Mole, McColl & Vale, 2006). By relying on the visual channel we do not limit the education process to their inability to hear, but shape and expand our teaching to fully involve their most enhanced ability: seeing. Bahan (1989) captures it succinctly:

> I have no alternative suggestion for a better word to describe ourselves. The closest I can come is, seeing person. Since I identified myself as a seeing person, that would explain everything around me: TTYs (Teletypewriter), decoders, flashing doorbells, lip reading and emergence of seeing language, ASL. ASL did not emerge because of what we cannot do, it emerged because of what we can do: see. (p. 32)

As Marschark (2003) rightly notes, deaf people scan their surroundings visually more often than hearing persons thereby compensating for the lack of auditory stimuli; at the same time they concentrate on lip reading and signing. Hence for the process of comprehension they can make use of two strategies: speech based coding and visual-spatial coding. Hearing people rely on audition for language input and are therefore free to observe objects and events in their environment while listening to what speakers are saying about these objects. Thus language can overlay activities, and the link between the two is readily made. An appropriate example would be a teacher writing on the board and speaking simultaneously without having eye-contact with the students. For deaf people the situation is different. Even those who are hard-of-hearing or deaf with some residual hearing must rely heavily on vision to make sense of their environment and the communication that takes place within it. Hence, in order to acquire language, they must see it on the lips, hands, or both of their communication partners. In addition to all this, a very important role is played by facial expression, body language, and gesture. The questionnaire my students filled in at the beginning of the course

showed that all of them had a deep desire to learn to speak English. Seeing that, the question for me was how to teach speaking to people who cannot hear at all or can only hear partially, keeping in mind all the above considerations. The only solution I saw was to visualise speaking: visualise pronunciation, vocabulary, writing and even grammar rules.

5 Classroom setting

Due to the above considerations I came up with a set of solutions which I hoped would help in achieving the goals of the course. First I had to find a suitable room to conduct classes in. Experience tells us that the room should be quiet and well lit. Unwanted sounds can be very distracting. In our classroom there was an echo problem so we decided to put polystyrene foam sheets on the walls. This helped us solve two problems: (1) it improved the acoustics and (2) we could hang our posters, drawings, pictures, diagrams and charts on it. We did this in line with the observation that "[e]ducational researchers frequently cite the dependence of deaf students on the visual modality and encourage the use of visual materials and displays in the classroom" (Marschark, Convertino, Sapere, Arndt & Seewagen, 2005, p. 731). Equally important is light. In case it is gloomy outside, you should put on the lights. This is important if anyone is to lip read something. It may also happen that the room is lit only from one side, for example the light is coming from behind the teacher. This should be avoided as it will decrease the visibility of the teacher's face and mouth and make lip reading much more difficult.

My students sit in the shape of a horseshoe which enables them to have constant visual contact with the teacher, the equipment such as the overhead projector (OHP) or the smart board, and most importantly with each other. The seating arrangement for a student with hearing impairment has a great effect on the level of his or her comprehension. At university level they themselves choose where to sit as they are aware of their hearing problems. For example, one of my students who is deaf in one ear knows how to sit to be able to hear the teacher and the rest of the group (always with the hearing ear towards people and the teacher). Keeping in mind that people who are deaf learn best via visual or tactile channels (Marschark, Lang, & Albertini, 2002) I make it a point to always stand facing my students, which allows them to hear and lip read. It is a well-known fact that only about 30% of the spoken text can be lip-read so I always keep a flip chart or some digital equipment close by for providing clarification in writing. Mow (1989) rightly argues that complete

comprehension cannot be expected if you are limited "to the 30% of words that can be lip-read with no guarantee that there would be none of the words you have not seen before" (p. 36). An illustrative example suggested by Epstein (2014) could be the word *ashtray*. A student who comes from a non-smoking family can simply be unaware of such an object. Even if someone could technically lip-read the word, if the concept is not known, he or she will not comprehend. Another example can be that of idioms or collocations, which can be very different in one's first language. For example for the English phrase *a different kettle of fish* the Polish idiom reciprocating the meaning is *inna para kaloszy,* which translated into English would sound *a different pair of wellingtons.* As for collocations, a good example is that in English we *take a photo* whereas in Polish we say *zrobić zdjęcie,* which if translated into English should be *make a photo*.

Successful communication with deaf persons is strongly dependent on visual attention (Andrews, Leigh & Weiner, 2004). To promote joint attention the teacher points to the visual and waits a few seconds before explaining the content. This is not the case in regular classes, where hearing students can look at an OHP and hear the teacher's explanation. Students who are deaf need to look at the visual first and then shift their gaze to the speaker. This brings us to an important conclusion: if students look away even briefly, they can miss valuable information. In order to avoid such a situation, one can make use of various methods also known as *the intervention package*. This includes waving, clapping, moving head from side to side, using pointing to direct attention while allowing language input. It is worthwhile to remember that communication should be relevant, meaningful and visually accessible.

6 Code of Communication

The next step before we started learning English itself was to set up a code of communication. As I mentioned earlier, some students knew PJM at the beginning and the rest did not. So the first step was to teach them the Polish Sign Language alphabet and I also gave them the English alphabet in ASL to find similarities. But the English alphabet and its pronunciation were shown through PJM. So every English letter was shown with two signs: one to show the letter itself and the second to show the way it is pronounced. As I mentioned before, with the questionnaire I also collected information to find out if the students had been exempted from speaking and listening exercises at school and had simply not been taught pronunciation in English. This namely meant that when they reached the

university level they had no idea that the written version of the English alphabet is different from the spoken one. To help in distinguishing different signs my students use the International Phonetic Alphabet.

The procedure I applied was as follows. We started with the comparison of both sign language alphabets. Soon we were signing words and sentences. The students were very involved finding out that there are words in PJM and ASL, for example *eat, food* and *drink,* which are signed in the same way in both sign languages. Moreover, some compound sign language words follow a similar pattern. For example the compound ASL word *breakfast* is a combination of eat and *morning*. The same can be noticed in PJM, where the word *jeść* (eat) and *rano* (morning) are signed in the compound word *śniadanie* (breakfast).In a similar way, *eat* plus *evening* and *eat* plus *noon* yield compound words for *dinner* and *lunch* respectively.

Learning ASL became more interesting as the students got acquainted with Deaf Culture in the USA and found out that ASL is becoming a *lingua franca* too, similarly to the position of spoken English in the hearing world. Having settled the code of communication I started the real course.

6.1 Code-switching

Foreign language courses are conducted with the aim of achieving progress in six areas: vocabulary, speaking, listening, reading, writing, and grammar, however, in a course for deaf persons listening exercises are omitted. Since I found out that the use of PJM and ASL could help in most of the taught areas, we embarked on an extensive use of the two sign languages liberally applying *code-switching* and *code-mixing*.

Those terms are often used synonymously, though code-mixing is often used for intra-sentential code-switching only. Crystal (1987) advises that code-switching occurs when a bilingual person alternates between two languages with another person who also knows these codes. This type of alteration may take a number of different forms, including the alteration of sentences, phrases from both languages succeeding each other and switching in a long narrative. Many researchers (Cole, 1998; Critchley, 1999; Lai, 1996; Schweers, 1999) argued that code-switching can be a useful tool in assisting the English language teaching and learning process. Others (e.g. Skiba, 1997) see an opportunity for language development because code-switching allows the effective transfer of information from the senders to receivers. I see code-switching as a very useful form of

enhancing progress in foreign language improvement through breaking the codes, changing them, stimulating students to go with the flow of the lesson instead of being constantly left out because of shortage of vocabulary.

The literature describes different functions of code-switching. *Referential* function of code-switching is used when students want to compensate for shortcomings in the matrix language. In such cases they use their L1, which for some could be PJM, for others spoken Polish. When I cannot communicate via sign language, I switch into written or spoken Polish. This type of code-switching may either make up for lexical gaps in the matrix language, or help the speaker maintain a smooth speech flow. The *directive* function refers to a situation in which speakers either want to associate with, or dissociate themselves from other interlocutors. Sometimes students associate with the teacher taking part actively in a lesson, sometimes they associate with another student who is presenting something at the moment by interactively helping him, adding or clarifying something, or using peer correction, but sometimes they stay apart talking between themselves. The *phatic* function signals a change in *tone*. You may say that this form is used when I show on my fingers the pronunciation of certain words intentionally changing the code from spoken to written language, first showing something visually by writing on the board and then also visually through finger spelling. The *metalinguistic* function occurs when speakers comment on a specific feature of a language by using the other language spoken or signed.

7 Teaching techniques

In the following part of the article I am going to discuss the teaching techniques used to improve my students' vocabulary, reading, writing, speaking and grammar. As mentioned above, listening exercises did not take place as they would in a regular English course.

7.1 Vocabulary

During classes on vocabulary practice students were very interested in finding similarities between PJM and ASL as was mentioned above. It was typical for our lessons that when learning a single word or a phrase, we checked how they are shown in PJM to support understanding and also looked for their equivalents in ASL, which sometimes caused surprises.

Such a situation took place when we were working on computer and Internet vocabulary. Students quickly discovered that foreign loanwords such as *laptop, Facebook, tablet, e-mail* are signed in the same way in both sign languages. With every passing lesson one could notice the students' growing interest in ASL as a source, which led to growth of vocabulary. The students' experience in processing visual information through their native sign language (PJM) helped them in the acquisition of ASL.

In teaching vocabulary I would like to emphasize the importance of paraphrasing or rephrasing and context. Epstein (2014) maintains that repeating the same words or sentences does not help in making the meaning of the words understood. She has been a strong supporter of looking for the meaning of words in English dictionaries and searching websites. What she also underlines is context. She believes that when we show the context to our students, they will understand the whole text and discover the meaning of the key words. The level of comprehension will rise significantly then. It is advisable to give the students some kind of background information such as historical context to make them understand the word or expression better. For example when teaching the word *uprising*, to make the meaning clear I would give the example of the Warsaw uprising, a historical event very well known not just to Poles but many other nations.

It is important to note that all the students write a placement test at the beginning of the course to give the teacher a picture of what type of students he or she has and also to let the students know at what level their English is and what their target can be. The highest score in my group was 20 out of 100, which meant that the students were at the A1 level and had very poor vocabulary. Therefore I had to think of extra methods and ways of introducing and teaching new vocabulary. I would like to add here that a very important task for EFL teachers is to choose the right vocabulary which they want to introduce to deaf and hard-of-hearing students. It is vital to divide the new words into two groups: more significant and less significant ones. The more significant words must be introduced, explained diligently and revised systematically and the rest of the words the students can choose to learn according to their individual capabilities. The teacher needs to come back to the more significant words now and then using them in different contexts. For the purpose of revising vocabulary, I made an extensive use of video clips, songs and films with subtitles, and ads. Two well-known songs that already have their sign language versions in PJM and ASL were especially popular amongst the

students in my group: the Christmas song *Silent Night,* and the pop song *Happy* by Pharrell Williams.

7.2 Reading and writing

Reading and writing are visual skills. Reading is a skill where context plays an important role. It is helpful to do some pre-reading activities, such as watching a clip, looking at photos, and introducing the key words. As mentioned in the paragraph about vocabulary, the use of context, which can be provided by a photograph, is useful. All the more so if this photo-context is directly connected with the students or with Deaf Culture. An excellent example is a text about how sign languages can come handy in day to day life. For this text the students were shown a film about a restaurant where all the personnel is deaf or hard-of-hearing and use sign language all the time. It has been observed that the level of interest in the topic being discussed or exercises being done is much higher if it is in any way connected with deaf students' life or Deaf Culture in general. They love to read and talk about celebrities who have or had anything common with deafness. But they were also eager to find and write about unusual restaurants: restaurants in the sky, where Ninja waiters work, or where you are served by robots.

Writing in English is a skill which is more and more in demand in day to day life. In the questionnaire which I conducted most of the students showed interest in learning how to use English for chatting on the Internet, texting, writing mails, and using social networks. Hence I made them use English in such type of exercises. Every request or piece of information that the students wanted to convey had to be written in English. Even some home assignments were sent via e-mail.

I made an informal analysis of their written assignments in cooperation with a teacher who teaches hearing students. Our analyses showed that (1) mistakes made by my deaf and hard-of-hearing students were to a great extent similar to those made by their hearing peers. (2) just as hearing students, the hard-of-hearing learners tended to do word for word translations from Polish to English. A simple example is *ja mam 20 lat,* which when translated into English word for word becomes *I have twenty years.* Many students wrote this and not *I am twenty.* Another example is *masz rację,* which in English means *you are right*, but Polish L1 speakers translated it as *you have right*. The deaf learners, on the other hand, translated word for word or rather sign to sign from PJM to English. Hence a deaf person would introduce himself as *I am John. Deaf birth.* He would not say *I am deaf from birth* because when signing, he needs only

two signs to convey this idea: *deaf* and *birth*. In another sentence instead of writing *she is in the kitchen* they translated from PJM *she in kitchen* or just *she kitchen*. There are many more such examples which I came across over the years of teaching different students.

7.3 Speaking

In the questionnaire, all the students showed interest in enhancing speaking skills. As I stated earlier, my current group consists both of students who speak and those who do not. In teaching speaking skills a very important part was played by PPT presentations the students made and presented to the class. The PPT presentations were written in English and usually had new vocabulary and grammar structures. All those who speak, presented their work orally in English in front of the class. I supported their performance with fingerspelling to help them pronounce some words properly. The students who do not speak at all signed in PJM and that was translated by bilingual students to the rest of the group. This I call *peer support*.

Peer correction also plays an especially important role amongst deaf learners. In my classes, every presentation was first supported by bilingual students, who read their classmates' work to the rest of the group. Later the written work was corrected by the students there and then. The corrections were connected with every part of the language study: word order, vocabulary, grammar, spelling and so on. Peer correction is not a technique only connected with speaking; it was observed during grammar classes which were conducted by the students themselves. When we changed roles and they became teachers, they became very responsible. Trying to focus the other students' attention they even banged on the table or clapped their hands and checked and corrected their peers' work on the spot. What I learnt from my students giving lessons to their peers is that they prepared more repetitions than I did and gave more handouts and rewarded any progress and any good answer. I noticed that they paid attention to preparing materials in both English and Polish, using the Grammar Translation Method, which was time consuming but it was the way they had been taught in their high schools and they could hardly get rid of this habit (Gulati, 2013).

7.4 Grammar

Sign languages did not just help improve vocabulary or pronunciation but also helped practice grammar. Students who at first were not able to even recognize grammar tenses were able to use them. To make this work I first wrote the parts of a sentence in different colours: for example the subject in blue, the verb in red and the object in green. So a simple sentence *John studies English* was written in different colours: *John (blue) studies (red) English (green)*. This division of the sentence parts by applying different colours allows the students to remember if something goes missing or if the word order is incorrect. I found that colours are helpful in remembering grammar structures such as 'Wh' questions, the Passive Voice, indirect questions and combining sentences using relative clauses.

Visualization helped the students master the grammar tenses, which tend to cause problems even for hearing students. Deaf and hard-of-hearing students have great difficulty in mastering even Polish grammar tenses of which there are only three in total, let alone the 12 tenses in English. They very often tend to forget to add endings to verbs or use the right form of auxiliaries. These mistakes are often seen when there is a change of person, for example in *I play football daily.* For the third person deaf students would write *he play* omitting the *s* ending. This primarily happens due to the fact that a majority of them do not hear the sound /s/. Such mistakes are common when they use the Past Simple Tense, too. It was observed that the students had difficulties in remembering whether to use *is* or *are*, *was* or *were*, *have* or *has* and *do* or *does*. As mentioned before, this is partly because they cannot hear some sounds. But constant highlighting and showing the S letter in sign language by fingerspelling could remind them of the endings. After some time it was visible that students themselves were able to correct each other's mistakes. The same method was helpful for them in learning irregular verb forms, transforming verbs into nouns and vice-versa and making the comparative and superlative forms of adjectives. Once again PJM and ASL were helpful in comparing signs for tenses. It was interesting to note that the past and future actions are signed similarly in both sign languages.

7.5 Added benefits

At the beginning of the course we had three students who did not sign at all and by the end of the year were able to sign freely in PJM and to some extent in ASL. So it was visible that the use of sign languages did not just help those who could sign but also those who were for some reason new to it. A stronger bond was emerging amongst the students with

the rising awareness of the importance of the two sign languages in their quest for knowledge. At this point I must admit that a much better and stronger relationship was emerging between the students and me. Earlier it was the sign language interpreters who developed a closer bond with the students because of the shortcut created between them. But there was no agent between us this time and this was certainly helpful in creating a better, direct relationship between the teacher and the students.

8 Conclusion

Teaching EFL to deaf and hard-of-hearing students turns out to be a challenging task. All the above experiences bring us to two types of conclusions. Some are related to the students, but need to be applied by the teachers. First, the students should inform the teacher about what classroom conditions are good for them and how a teacher can best provide them. In other words, what classroom conditions should a teacher create so as to make the education process convenient for the students. The next important thing is to help in establishing the code of communication which is going to help in transferring knowledge. Every student should make it clear to the teacher, what method is best for communicating with them: sign language, speech and speech reading, showing, displaying, finger spelling or using cued speech.

The next set of conclusions concern both the students as well as the teachers: both parties should make the most out of the time spent in the course. The course is not very long so the students should try and show utmost interest in the subject and take as much knowledge from it as possible. It is vital to share information, news, jokes obviously in English. Students should never hesitate to ask, clarify and speak English, write all their correspondence in English via texting and emails because only *practice makes a man perfect*.

Teachers on the other hand, should indulge in activities that will acquaint them with the characteristics and learning needs of deaf and hard of hearing students, keep a record of all the difficulties and successes their students achieve in different skills for future research or exchange of ideas. They need to try and visualize all that can be with the use of sign languages, pictures, video clips, films, posters, mind maps, and so on and try and personalize the material for exercises. Using the names of students or their personal experiences to do grammar exercises helps them concentrate on the activities. The teachers should help the students to get into contact with native speakers or at least people who use the language on a daily basis which has a very positive influence on their functioning.

Furthermore they should constantly work on upgrading their level of teaching skills by taking part in different workshops, seminars, conferences, by reading journals and newsletters, and by exchanging ideas with other teachers around the world. They should take advantage of the vast amount of materials available in the EFL field, because teaching deaf and hearing students is similar in many respects. Experimenting with new ideas, methods and ways of teaching deaf learners, using creative methods could change the history of slow progress amongst these students. Both teachers and students need to remember and understand the famous words by Nelson Mandela that *"education is the most powerful weapon which you can use to change the world"* (http://www.un.org/en/globalissues/briefingpapers/efa/quotes.shtml).

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Chapter Ten

Immersion in the English Language for Deaf Classes

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1 Introduction

The paper presents some data and assumptions concerning deaf and hard-of-hearing students who attend English as a foreign language (EFL) courses at Adam Mickiewicz University in Poznań from a practical point of view. The author focuses on the immersion approach which is applied in the teaching/learning process via different in-class techniques based on various visualisations, the use of the Interactive White Board and computer technology as well as through some *immersion experiences*. The hearing impaired EFL students were exposed to English either as a *lingua franca* while participating in international workshops or in the foreign language environment during a pioneer Erasmus project. Immersion in the language and its culture proved remarkably effective in facilitating the process of learning English.

2 Deaf and hard-of-hearing students at AMU

Adam Mickiewicz University (AMU) Poznań takes pride in its academic tradition dating back to the 16th century. With around 47,000 students and 15 faculties, it has been ranked among the top 3 universities in Poland for the last eight years. The development strategy adopted by the Senate and the related Open University policy creates friendly conditions for studying also for young people with special needs. Since 2001 AMU has been supporting close to a thousand special needs students, among them 75 with hearing impairment, which is a sixteen-fold increase to date.

Academic communities are facing a formidable challenge of reducing barriers and enabling hearing-impaired students to study without lowering academic requirements. A foreign language course is one of the first

difficulties to be faced by a student with hearing problems. Hearing-impaired students' studying alongside regular-hearing students was perceived for a long time as practically impossible even with the friendly support of teachers and course participants for various reasons, most of them time-related (Nabiałek, 2013a). They were unable to access the linguistic input that was available to hearing students through the auditory channel, which slowed down the process of information transfer.

Prior to 2001, students with hearing impairment were exempted from foreign language classes and taught, if at all, on a voluntary basis. However, in 2001, the Ministry of Education in Poland issued a decree (http://www.frysztak.pl/oswiata/aktualnosci/ramowe_plany_nauczania.pdf) stating that all deaf and hard-of-hearing students should be taught foreign languages. Following that, the establishment of a modern, well-equipped multimedia laboratory and a language course for hearing-impaired AMU students was initiated in 2008 (Nabiałek, 2013b). A special English teaching programme was developed assuming delivery of instruction in small groups (1-4 students) adjusted to the needs and the degree of hearing impairment of the students. In this programme, classes are conducted in two modules: one for hard-of-hearing students and the other for deaf and severely impaired students with the participation of a sign language interpreter. The English course ends with a written examination at the minimum level of B1 according to the Common European Framework of Reference for Languages (Council of Europe, 2001). When developing the contents of the classes, the language teachers drew upon the experiences of the University of Natural Sciences and Humanities in Siedlce and the Czech Charles University in Prague, which they visited in 2008 and 2009.

The deaf and hard-of-hearing students at AMU represent different faculties and fields of study: History, Psychology, Pedagogy, Philosophy, Journalism, Chemistry, Physics, Computer Sciences, Law and Administration at BA, MA and PhD levels. Their hearing loss varies, from mild to profound. All of them can lip-read fluently whereas approximately half of them know Polish Sign Language or the so called *Language and Sign System* (Signed Polish), a set of manual signs following the grammatical rules of Polish. Used by the majority of sign language interpreters in Poland and seen, for example, on television, it is often confused with Polish Sign Language, the natural language of the Deaf community. In total, since 2008 the courses of English for students with hearing impairment have been attended by 52 students with major hearing problems, five people studied extramurally, while ten, having passed the exam, returned to us selecting English as an optional subject. AMU students with minor levels of hearing loss usually study in regular groups.

The students participating in our course represent different levels of English language competence from A1 to C1.

3 Immersion in language learning

The word *immersion* is a term that frequently comes up in language learning. The Oxford Dictionary (http://www.oxforddictionaries.com/definition/english/immersion) defines it as the "deep mental involvement in something." There are many existing definitions of the term *immersion* as a method of language teaching and learning. The most common one being language immersion, or simply immersion, as a method of teaching a foreign language in which the learners' target (foreign) language is the medium of classroom instruction. The main purpose of this method is to develop learners' communicative competence or language proficiency in the foreign language (FL) in addition to their first or native language (L1). An important aspect of the above method is its variability. It is possible to apply it in the classroom setting as well as in the target language environment. The two methods are at their best when they complement each other.

The immersion method described above benefits all kinds of learners, from children to adults, in many ways. Children who are exposed to the language at an early stage acquire near native skills at an earlier age than their non-exposed peers (Swain, 1983). Adults foster their acquisition of the foreign language by being bombarded with a variety of immersion techniques. While language learners improve their linguistic and metalinguistic abilities, at the same time they also expand their understanding of their native language. Moreover, an inherent feature of immersion is its potential to open the door to other cultures helping to understand and appreciate native speakers and their specificity.

3.1 Uniqueness of deaf and hard-of-hearing students

Foreign language learning for deaf and hard-of-hearing students seems to be a multiple challenge. We are facing a group of people whose functioning in the spoken language of their native country is difficult for them depending on the level of their disability and their personal and educational background. In a spoken-language environment they are at an immense disadvantage with respect to noticing and processing the input

from the spoken language of their community. They have problems with building up the grammar and vocabulary of their first spoken language, let alone another one that is completely foreign to them regarding its structure, vocabulary and pronunciation. As Berent (2008) states, deaf and hard-of-hearing learners face a double challenge: they are simultaneously second language (L2) learners of English and deaf/hard-of-hearing learners of English.

There are varying degrees of deafness, which influence the mode of communication. Between *hearing well* and *hearing nothing* one can distinguish between mild, moderate, severe and profound hearing loss. Some hearing impaired persons will communicate rather visually than orally, some will be able to speak. Some, with the recent advancement in hearing aid technology, have a chance of speaking very well indeed. It is, therefore, an individual approach with some fundamental principles of teaching and learning that is required.

Hence, the immersion method should also be tailored to fit the individual needs of our students. It is realistic to state that tailoring is possible only in the classroom because the teacher has a possibility to work with a small group of students, sometimes one to one. Therefore, the choice of materials and teaching techniques can be individualized. However, when the students are immersed in the target language environment–visiting the country where the language is spoken–they have no choice but to speak the language or else be cut off from interaction. It simply means deep water, in which you either swim or sink. Yet, immersion in the target language environment has a huge advantage over classroom teaching: it is highly authentic and allows for experiencing truly genuine linguistic and cultural surroundings.

3.2 In-class techniques used within the immersion method

These techniques do not immerse the students fully in the language because the students' native language (either spoken Polish or Polish Sign Language) sometimes has to be used for instruction and explanation. However, the teacher provides the foreign language input by presenting different materials and organizing a friendly and supportive environment for the students to construct and practice their language competence via communication (Domagała-Zyśk, 2013a). There is a wide range of factors which are vital in the teaching/learning process: associations, remembering and repeating words and phrases, peer interaction and support, and contextualizing the language input.

Many techniques are based on input enhancement and other Focus-on-Form methodologies (Berent, 2008) that draw students' conscious and unconscious attention to the linguistic input within communicative situations. The goal is to make students perceive that input and begin to process it. Doughty and Williams (1998) as well as Doughty and Long (2003) give and discuss some Focus-on-Form methods which L2 teachers of deaf and hard-of-hearing students, when applying an immersion approach, can take advantage of. Starting from *input flood* (flooding learners with specific forms of the target language in order to draw learners' attention to the input), through *input enhancement* (making input more noticeable by *flagging* target items to draw students' attention to them, e.g. in textual enhancement using different fonts, bold type, colour, italics, underlining, etc.) to *interaction enhancement* (interactive problem-solving tasks using scenarios to create contexts to get students to use the target language in realistic discourse), just to mention some of my favourite ones. All of them can be implemented in visual ways so that our students can receive compensatory visual input (Berent, 2008).

3.2.1 Visualisation

An integral part of teaching via immersion can be–what is the very heart of deaf people's communication–not words, but visualisation: signs, images, the very special way of thinking and understanding the world (Machova, 2008). With the help of a sign language interpreter, who is also an experienced surdopsychologist, and speaks English at an intermediate level, I try to use Polish Sign Language as much as possible. Thanks to it students can learn to lip-read English, practice speaking skills or acquire new vocabulary without spoken Polish. Introducing some visual features into teaching such as pictures, drawings and different realia is also very helpful as well as facial expressions and gestures or drama and pantomime even for people who do not use sign language. My colleagues and I have always believed games and pantomime to be a welcome element in the teaching/learning process. Especially the latter plays an important part in making the instruction more enjoyable.

Deaf and hard-of-hearing learners rely to a great extent on vision to receive compensatory spoken-language input so images as visual aids play here an important role. You can surround students not only with wall charts and flashcards to convey a whole range of grammatical and lexical concepts but also with downloadable, copyright-free images which could be more powerful than a quotation. Images can serve as texts and texts as images (Śpiewak, personal communication, September 27, 2012). The
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crucial thing is to encourage students not to take images at face value and to notice that there is not necessarily one correct answer. It is good to select images which have both representational meanings and rich associations; they may carry important political, historical and social messages and serve as key educational tools (Goldstein, 2008).

It is emphasised that most teaching materials should come from the students (posters of tenses, picture stories, tongue twisters, vocabulary sets and sentences, ppt presentations and quizzes, desktop wallpapers and photoshopped images). They form a kind of display, dynamically changing along with the topics of the classes, a sort of visual mnemonics that help to trigger the students' memory. As the oft quoted saying attributed to Confucius says: "Tell me and I'll forget. Show me, and I may remember. Involve me and I'll understand."

3.2.2 Use of the Interactive White Board and computer technology

The changing world of technology enables the introduction and use of new teaching techniques. Although some of them seem to be obsolete, there are many which come in handy for people with a variety of disabilities and the resulting shortcomings. Deaf and hard-of-hearing students constitute a unique group with many of them suffering from multiple disabilities on top of their primary ones. Some of our students have short attention span, motor disorders resulting from cerebral palsy, accelerated mental and physical fatigue, insufficient abstract thinking, lack of self-confidence, poor coordination skills, and so on. Therefore selecting and creating the most suitable and appealing teaching techniques is a genuine challenge for a foreign language instructor. Moreover, the interaction during L2 classes should be managed in a way that all learners are provided with opportunities to become actively involved in the learning process. This is exactly the point where the Interactive White Board (IWB) becomes an indispensable teaching tool.

Thanks to the IWB all students are involved in learning, nobody is left out, it enables the whole group to focus on and follow the same task appearing on the big screen. We use digital course books with IWB software, dragging, interactive quizzes, games, subtitled videos and films with closed captioning. In case of profoundly deaf students this stimulant is of crucial importance because the interactive whiteboard supplements the missing natural verbal communication. Students can move images on

the screen, add speech bubbles and text. At the same time we use printed copies of IWB-displayed materials for annotation or manipulation.

In our language lab the computers are networked so that each student can display his or her writing on the IWB and all of the other computer stations as well. This kind of *smart classroom* allows for a peer review process that involves feedback from the entire group. Students can make real-time revisions to their texts while others watch. As a result the writing process becomes dynamic and more natural since each student takes an active part in it feeling comfortable and practicing constructive criticism. On the other hand, students learn to appreciate and value comments from not only the teacher but also from their classmates.

Computer technology and online environments not only make the education process more interesting but most often require the ability to use English. Deaf and hard-of-hearing students have to learn English to update their computer knowledge and skills, which implements one of the assumptions of the immersion method: learning in L2. On the other hand, while accessing technology they acquire a lot of English vocabulary. Thanks to employing Assistive Technology (AT) the students are provided with visual information that might be stored and reused later, be it in class or at home. In this way they have more time to remember and process the linguistic input and can feel more independent and secure in their learning strategies. It also increases their motivation to continue education of this kind (Domagała-Zyśk, 2013b).

4 Projects

One of the more pragmatic ways of immersing our students in the FL is providing them with the opportunity to participate in language events and meetings organized in Poland with students of different nationalities attending. They are both financially and geographically much more accessible than the ones organized abroad and fulfil the purpose of enabling the students to communicate in English with their peers, who also use it as a foreign language. The latter factor seems to be of importance to our deaf and hard-of-hearing students psychologically. Knowing that their counterparts use English as a foreign language, as they are not its native speakers, makes them feel more confident and willing to engage in conversation. The applying rule is: "We don't have to be perfect." Willingness to communicate is the key factor guaranteeing success because a foreign language is best acquired in the context of an interaction (Domagała-Zyśk, 2013a).

4.1 Lublin workshops

The workshops organized at John Paul II Catholic University in Lublin in October 2012 proved to be such an occasion to practice English under the above mentioned circumstances. Polish and Czech students representing three universities took part in a variety of exciting activities such as city quest, quizzes, students' presentations, e-learning platform tasks and trips to Majdanek Concentration Camp and Warsaw, the capital of Poland. The programme assumed high linguistic activity of students who, overcoming their limitations, held conversations, communicated by means of writing and studied cued speech to be able to communicate even more precisely. AMU students gave presentations in English on Poznań, AMU, the activity of the Ad Astra Association of Students with Disabilities, and the 3rd prize winner of the 'Imagine Cup 2012'–an annual competition sponsored and hosted by Microsoft Corporation that brings together young technologists worldwide to resolve the world's toughest challenges–talked to the audience about the project of his team and their trip to Australia, where the finals were held (Nabiałek, 2013b). Before coming to the workshops the students had an opportunity to get to know one another online via social networking. It was an excellent idea because they had a sense of familiarity and friendliness that facilitated their direct face to face communication. The social contacts started then are bearing fruit even today in the form of friendships.

Such events as this, immersing them in the foreign language, give the students a powerful motivation to further expand their English skills.

4.2 Erasmus pioneer project with Bucks

The project entitled "Hard-of-Hearing Erasmus Awareness Week" was carried out by two universities: Adam Mickiewicz University in Poznań, Poland and Buckinghamshire New University, UK. It was a collaborative venture initiated during the 2013 Erasmus Congress and Exhibition in Poznań, Poland. The intent was to accomplish several major objectives:
- to bring five deaf and hard-of-hearing AMU students to Buckinghamshire New University (BNU, also called 'Bucks') for a week-long intensive *Erasmus Experience*
- to offer them a unique opportunity to function linguistically and socially in an English speaking environment (both academic and non-academic)

- to evaluate their level of confidence and self-efficacy at the beginning and end of the week
- to challenge, stimulate and boost the confidence of the students
- to remove any seeds of doubt in the students' minds that their disability might prevent them from accessing an Erasmus exchange.

The participants were five hearing impaired AMU students with A2 to B2 levels of English. They had different levels of hearing loss ranging from mild (1 person) to severe or profound (4 people) using either hearing aids or having cochlear implants. Depending on their hearing impairment various students used different means of communication: lip-reading, sign language, spoken Polish and English. The students were accompanied by two teachers of English, a sign language interpreter and the AMU rector's proxy for disabled students.

During the seven-day-visit in March, 2014, the Polish hard-of-hearing students were exposed to different levels of English. They were engaged in a variety of activities and worked alongside English speaking students using adjusted hearing loops (two students) and testing *deaf access* at the host university, not to mention the vibrating pillow fire alarms at the accommodation. They were asked to check and try out available recourses provided across BNU to enable the participation of hearing impaired students. Our students also gave presentations on themselves as well as on the situation and functioning of the hearing impaired at AMU, their participation in English workshops for hard-of-hearing students in Lublin and in some breakthrough cultural events in Poznań. The detailed list of their presentations was as follows:

Paulina: Something about me (prezi)
Adam Mickiewicz University (prezi)
Piotr: History of Poznań (ppt)
Rejewski, Różycki, Zygalski: cracking Enigma (ppt)
Marta: London/Poznań (prezi)
Barbara: My life (ppt)
5 Senses. Pause (ppt)
„English as a tool for international communication." Workshop and conference for deaf and hard-of-hearing students in Lublin (ppt)
Beata: Students with special needs. Ad Astra. (ppt)

A great asset were the Polish students' hearing counterparts – their Bucks student buddies. They helped the Polish students to ease the first impact of the new environment and the omnipresent English language. The group also had a chance to visit Oxford and London (one-day visits) and take part in other activities including *Tango for the Deaf* dancing workshops led by faculty members of our host University, one of them

being deaf herself. The tutors were very keen on offering the students the opportunity to immerse themselves in music accompanied by the language of instruction. As the Bucks University official site states: "There has been a history of D/deaf people engaging with music by a number of different means – principally by experiencing vibrations. There was a vogue for 'Deaf Discos' in the 1990s, and famously, deaf percussionist, Evelyn Glennie, speaks of using her whole body as an 'ear'. We are interested in assessing the viability and validity of enabling deaf people to access music and musicality through kinetic engagement with the body of another human being" (http://bucks.ac.uk/research/research_news_events/d-deaf/). For the Polish students it was a warmly welcome breakthrough experience of immersion. The students also participated in a number of academic activities such as: Health & Safety Presentation, Deaf Awareness Session, Business Communication–Writing Reports, International Social Work Classes, English for Academic Purposes, Students Union Presentation, Music Management–Modern Music Release Strategy Lecture, Polish Sign Language Taster Session, Hearing Dogs Charity Visit (in British Sign Language).

Both institutions feel that the project was beneficial to all their respective students and, as a result, the collaboration between the two universities is likely to continue and to thrive in the future.

The hard of hearing students found the experience very rewarding and motivating as it gave them the opportunity to practice and develop their language skills in an English speaking environment. Their confidence, ability and willingness to participate in different seminars grew visibly over the week. Immersion in the language and its culture proved remarkably effective and highly facilitating the process of learning English. Our results show that students' confidence levels rose to such an extent that one of them felt ready to access an individual Erasmus exchange–or even study in the UK full-time.

Obviously such visits are motivational since the language is no longer a theoretical experience with Polish natives; suddenly it works in practice, and becomes *real*. For the students with a better command of English and a minor hearing loss it was easier to use, understand and feel comfortable with the language. Their more advanced ability to communicate boosted their confidence in using English more freely during presentations, conversations with peers (buddies) and in everyday life. Other students, deaf or with a profound hearing loss have a lesser knowledge of English. Being, however, very ambitious and outgoing people they compensated their lack of fluency with trying to accumulate new vocabulary and

carefully observing their environment. They tried to communicate in their simple English but needed some support from friends, teachers as well as buddies. It has to be said that buddies seemed to be an important go-between for our students and it is worth mentioning that such students should be willing to mix with the hearing impaired visitors, be aware of their disability and have an open mind plus natural sincerity and intellectual curiosity to make contact with other young people. As my colleague, Izabela Komar-Szulczyńska, pointed out, buddies being students and most of them native speakers of English, can help a lot to encourage interaction. We believe that enabling exchanges can become an interesting, irreplaceable experience in learning a foreign language.

As a conclusion to the visit here are the memories of one of our students from the feedback she wrote after the visit at Bucks University. It has to be stressed that the student quoted below in translation has a mild hearing loss and quite a good command of English:

I remember intensively learning English watching short original films, repeating English vocabulary learned during classes and reading all the texts I could find in English for the whole month before the visit. I was very excited that for the first time in my life I will be able to face everyday English live. That is why I wanted to get prepared as best as I could. I felt tense from the very start when we arrived at the airport. I was wondering if I would understand anything when I was asked about my passport and if I would understand the customs officer's questions. I felt very relieved when the control ended with a short thank you. The next English speaking person we encountered was the driver of our transfer bus. He spoke such difficult and complex language that I didn't understand him. I was very disappointed and worried about the future. I was also glad we had interpreters with us. But then it got only better. The lecturers and staff of the University spoke very clearly and slowly.

One could see they were well prepared for our visit and wanted us to understand and be understood. It was also easier to understand them since many presentations and tutorials were accompanied by slides. I was very pleased with myself then at how much I could grasp. I also said something in English occasionally and ….they could understand me too!

We had buddies (Bucks' University students) and the contact with one of them was very important for me and useful. With her being my peer and a non-native language speaker like me I was not afraid to make a mistake in her presence. We had some communication problems but we got to know each other quite well and had a good time.

I was sorry when we had to leave. Every day helped to shrink the language barriers. I am positive a longer stay in England would be more beneficial and could work wonders. (translated from Polish by Izabela Komar-Szulczyńska)

5 Conclusion

The application of the immersion approach in teaching English as a foreign language to hearing impaired students gives this method a new value but also requires some modifications. It should be applied in a flexible way adjusted to the individual educational needs of our students by employing mixed strategies e.g. task based strategy with an educational approach. It should combine a wide range of assistive computer technologies, visualisations, spatial techniques, and so on. We must remember that deaf students usually do not pick up information spontaneously. Therefore, they cannot be left alone. They constitute a group of learners whose exposure to a L2, even in the target environment, should be carefully monitored and thoughtfully arranged to fit the students' needs and let them swim not sink.

Another very important factor is students' willingness to communicate. They cannot be reluctant to use a foreign language as a means of communication. Immersion makes sense only when students' motivation and willingness to communicate are high.

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CHAPTER ELEVEN

Lesson Content Modifications: How to Adapt EFL Teaching Strategies to the Special Needs of Deaf and Hard-of-Hearing Students

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1 Introduction

Teaching English to Deaf and hard-of-hearing (D/HH) persons requires a multidimensional approach which takes into account various individual needs of students. In terms of their age, hearing loss, methods of communication and previous experience with language education, as well as other social-psychological factors together with language aptitude, personality, cognitive style, learning strategies, and so on, such learners do not constitute a consistent group. The discrepancies between students create a great challenge for the teacher to prepare materials that meet the special needs of a particular learner.

The insufficiency of methodological materials designed for teaching students with hearing loss inclines teachers to develop and experiment with their own strategies and approaches to meet their objectives. For this reason, the idea of drawing our knowledge from already existing approaches and adapting it for the special needs of students seems to constitute, so far, the only foundation for constructing comprehensive lesson plans.

The observations described in the following paper are based on the author's own experience as a teacher of D/HH students at the John Paul II Catholic University of Lublin (KUL) in Poland for three years but also while teaching participants of the *Breaking the waves* project (job-activation programme for deaf persons). Altogether about 50 learners took part in this at elementary, pre-intermediate and intermediate level. Each level consisted of students of different ages and with various degrees of

hearing loss. Classes were taught in one-to-one environment (in fact, I have rarely taught more than one student with hearing loss at the same time).

In the following I will first describe how to start working with D/HH students, design courses and make lesson plans to further show the particular ideas of lessons I implemented in practice.

2 Breaking the barriers

An important step to make by a teacher of D/HH students before starting the course is to get to know better his or her students, learn about their previous experience, their strengths and weaknesses, but also their fears (cf. Domagała-Zyśk, 2013a). Teaching English to students with hearing loss mostly means breaking the barriers not only those concerning communication or understanding, but also motivation, attention, or memory. I have often found that students start their courses with the deeply rooted conviction that they will never master English, and the experience from previous attempts only seems to confirm their fears. As a consequence, teaching, especially at the beginning, means struggling with the negative attitude of students and fighting their fears, doubts and frustrations by gaining their trust and interest in the subject and making them feel more confident.

For this reason, the personal contact with a student plays a crucial role in the process of education. Having them talk about their personal lives and problems, their interests and passions is certainly not a waste of time. Indeed such an approach requires some work to persuade them to open up and face their difficulties. Once they lose faith in their abilities, it is difficult to get them to try again and to do any work. It came across to me that such conversations help to build a bond between a teacher and a student, and place a foundation for future cooperation and educational success. Students start to feel more confident, trust us and eventually forget about the language barrier. Thanks to the information we receive it is also easier to plan the lessons and discover the topics that they would find interesting. Discrete observation and personal interviews can also help to get information about the student.

The two projects, *Breaking the waves* and the language course at KUL involved teaching students individually or in small groups, which was helpful in getting to know them better and focus on their particular needs and problems. In such situations I believe the teacher plays the role of a coach who needs to build the knowledge about students, make some reflections on their potential, boost their inner motivation for achieving

goals, and often to change their way of thinking. The knowledge he or she collects helps significantly in planning lessons, choosing topics and personalising the content to a considerable degree. Therefore, work with each student should be planned very carefully, which is why taking notes about students and keeping a record of what we expect before classes and making a note of what we have achieved is very helpful.

3 Language of instruction and course organisation

Before starting the actual teaching it is important to choose the right method of communication with the student as well as the language of instruction. In that way, it is very important for a teacher to show respect to the method of communication that the student uses every day, since such attitude creates a supportive environment and benefits learning.

Having analysed various approaches and the capabilities of my students I have chosen to conduct the lessons mainly via oral communication (since all of my students were able to communicate orally) Nevertheless, their speech perception and performance still varies significantly. For this reason, when necessary, especially while giving instructions or explaining grammar rules to a student who is not fluent in oral communication, I support the philosophy of total communication incorporating such means of communication as signs from Polish Sign Language, natural gestures, finger spelling, lip reading, speech, and *fonogesty* (Polish cued speech) to enhance the accessibility of the lesson.

After deciding on the method of communication and gathering the useful information about students' interests and background it is important to decide on a proper syllabus, which in case of students with special educational needs is not easy.

Taking into consideration the fact that curriculum, according to Power and Leigh (2003), is not just a "document or syllabus, it is much more than a collection of predetermined learning objectives and experiences. Curriculum refers not only to those elements but also to the actual effects on students learning of a variety of planned and unplanned arrangements and the interactions between participants in the educational process" (p. 38), thus requiring from educators a deeper understanding of the problems of D/HH students.

For this reason, designing a specialized and effective curriculum for students with hearing loss that would help them to achieve the same or similar outcomes as those of learners without hearing loss is very difficult. Moreover, it is often a problematic task to choose the aims of our courses

and predict the effects that would suit to the needs of all participants (especially since there is still a lack of materials which would help us to prepare such syllabus designed for D/HH students). That is why the objectives should be personalised, but even though should follow some general rules. The concept of deafness can be perceived differently depending on many factors and perspectives. Tyler (2013) observes that developing a curriculum should be based on four questions:

−What educational purposes should the school seek to attain?
−How can learning experiences be selected which are likely to be useful in attaining these objectives?
−How can learning experiences be organized for effective instruction?
−How can the effectiveness of learning experiences be evaluated?

Searching for answers to the above questions not only gave me a deeper insight into educational context, but also constituted a good departure point for me as a teacher in planning my courses and facilitated my attempt to create a favourable environment for students with special educational needs. Thus, seeking the purposes of educational action, analysing possible educational experiences, and implementing them can be found useful for determining whether all of the above actions succeeded and helped to approach the task of a complete course as well as of a single lesson plan.

4 Lesson plans

As in the case of mainstream education, when I define the expectations and objectives, decide on the form of communication and methods, I attempt to prepare a lesson plan which meets the students' needs and allows the students to leave classes with a feeling that they have gained some new knowledge. If teaching D/HH students takes place in a one-to-one environment (as in the case of classes I taught), it makes the process more flexible and leaves room for spontaneous changes in the lesson plan caused, for instance, by explaining problematic material, and, in a consequence, unplanned exercises or games. Nevertheless, it is important to never leave a student with a conviction that nothing has been achieved, which could undermine their self-esteem and motivation.

Fostering motivation is very important for a student in order to reach the next competence level. Yoshiyuki Nakata (2006) compares motivation to an engine and claims that "possessing cognitive and motivational self-

regulation is crucial in language learning" (p. 138). Stating the right aims, deciding on which abilities to develop, preparing appropriate materials, choosing interesting topics and preparing oneself for eventual problems with possible solutions are essential for creating an accessible and favourable environment for D/HH students.

The following sample lesson plans I have prepared and used during the courses with students from KUL and learners participating in the *Breaking the waves* project*,* who differed in terms of age (18–60), educational experience (secondary school graduates and above), language access and hearing loss (mostly with mild or moderate hearing loss, but also severe). Because of the above mentioned discrepancies, the lessons were changed and adapted to the needs of a particular student. Each class was based on the material from a mainstream course book, which was modified and enriched with educational tools geared toward the education of learners with hearing loss.

4.1 Elementary level

The following plan presents one of the lessons I conducted as a part of an English course for D/HH students on elementary level. Each lesson was taught in a one-to-one environment, for this reason the number of students in the table marks the number of students who take part in the lesson. As Domagała-Zyśk (2013b) suggests that making use of the great range of technical possibilities allows for keeping students focused and engaged in classes, I decided to utilise an online animation software. This kind of software allows creating animated presentations (video, audio, still-images) and turns out to be a great alternative to PowerPoint presentations. Visual effects stimulate deaf students and generate their motivation. To make the animation described below, I used the content from the course book (the topic, grammar exercises, and some pictures). The programme allowed me to organize the material in an accessible way to students with hearing loss. I decided to make use of the course book grammar and vocabulary exercises as a revision at the end of the classes. Finally, I enriched the presentation with a short film connected with the topic. Since the subject covers a great variety of activities, it may take two-three lesson units. The plan below displays an exemplary lesson I conducted on elementary level.

Level: Elementary
Number of students: one

Subject: *Let's take a trip!*

Teaching aids: computer, Internet connection, an online animation software*,* copies with additional exercises and expressions from the presentation, course book (English File 3rd ed. (Latham-Koenig, Exenden & Seligson, 2012).

Lesson aims: *Vocabulary*: places, holidays, travelling; *grammar:* superlative adjectives, be going to; making plans

Stages of the lesson:

Warm-up: Naming the places on the pictures.

Revision: exercises on comparative adjectives.

Preview of the vocabulary and expressions from presentation.

Watching in steps of the animated presentation and making plans for a perfect trip:

−choosing destination (deciding which is better and which is the best to go);

−means of transport;

−accommodation (watching short film about Deaf Couch surfers and discussing its positive and negative sides).

Making the final plan of the trip:

−using the construction 'be going to' and answering the questions about the plan.

Revision: exercises on grammar and vocabulary from the lesson.

While preparing the animation I tried to personalize it as much as possible. For instance, the cartoon shows a story of two people planning the trip. When I conducted this lesson with a male student, I changed the characters into a boy and a girl; when with a female student, I changed it into two girls (so that everybody had his or her own character in the animation and we could play and plan our trip together). Each sequence aimed to elicit student to tell about his or her own experiences with travelling and dreams about trips to places he or she would like to visit one day. The text of the characters was displayed in balloons so the presentation was accessible for the deaf students. Therefore, it is very important to set the tempo of the film for the students to easily follow, but at the same time fast enough to keep their attention. For me this was the hardest part and I had to change it a couple of times after some lessons to finally get the proper pace (it is, nevertheless, always possible to press the pause button). Funny animations captivated the attention to characters' lines and presented the use of expressions from the lesson in an appropriate context. As I was preparing this lesson, I decided to make use of the idea of Couch Surfing (CS), a social networking platform for hospitality exchange, which consists of different groups of travellers with different interests and needs. The film I chose was about a deaf Couch

Surfing community, where people were using samples of sign languages from different countries (at the same time the film had English subtitles) and showing that people with hearing loss can travel, take part in different cultural events and make friends all over the world via the community portal.

The students who use sign language as their mode of communication on a daily basis found this especially interesting since they could compare the national sign languages. The film, for this reason, aimed at sharing the students' cultural knowledge and increasing their motivation for learning foreign languages. Most students had not known about CS before and got excited about such an idea and about travelling though most of them have already been to many places abroad and they eagerly shared their experiences. I explained how to use the website and told them about the advantages but also the dangers connected with using such kind of social networks.

To sum up, I adopted the content of a course book lesson about the Couch Surfing (topic, grammar, vocabulary) and prepared the online cartoon to make a story in which the student and I participated. I added some extra grammar exercises and elicited, depending on student possibilities, oral and written discussions on the mentioned topic. I adjusted the content of the presentation depending on the students' hearing loss. The high level of personalization and wide range of visual aids helped in keeping students' attention during the lesson. Multimedia materials can help to make the discussed concepts meaningful, more accessible and finally more understandable for students with hearing loss.

Such learning-by-doing approach is inevitable while teaching D/HH students, for this reason, they will benefit from materials which enhance the process of acquisition skills and at the same time make lesson more interesting and involving. This supports students' attention and motivation, which is based on their success in commanding new skills. According to Parton (2006) there are five ways multimedia supports the learning of D/HH students. Those include:

- improving accessible instructional design,
- creating communication bridges,
- promoting skill development,
- making distance education possible,
- creating discovery learning experiences.

For this reason, we should take those advantages into consideration while preparing our lesson plans. Moreover, multimedia tasks may serve as a great addition to ordinary exercises offered by mainstream course books. They can be used for clarifying the parts which might look unusual

and hard to understand, and foster their reception by D/HH students. What is more, they attract learners' attention and keep them focused on a part of the material that is taught in that particular moment. Bearing in mind the fact that students with impaired hearing need to use more intensely their other senses to support their understanding, and since sight is a crucial sense, it is very important to use many visuals. In that way, composing new vocabulary content into nice picture-stories with the usage of online presentation programmes may help to organize lessons in an attractive, accessible and involving way, which allows for better understanding and more effective memorizing.

The Internet offers a great range of possibilities for enriching course book materials. Apart from the above-mentioned programmes, which offer a great alternative to PowerPoint presentations, there are many webpages where teachers and students can create their own materials that are beneficial for learners with special educational needs. These include multimedia glossaries or graphic organizers where both students and teachers may, for instance, organize new vocabulary. In addition, the usage of online sign language dictionaries, which can be also used as phone applications, may sometimes also come in handy.

4.2 Pre-intermediate level

The lessons on pre-intermediate and intermediate level I conducted mainly, with a few exceptions with students with moderate or mild degree of hearing loss. For this reason, it was possible to make use of some exercises based on listening. With students on pre-intermediate level, I made use of films from the course book materials as well as simple English language TV series, with English captions. With the subtitles, they were able to follow what was happening on the screen and at the same time could see the usage of the language in everyday communication. It turned out to be very important to pre-view new vocabulary and practice its pronunciation before watching the films. Sometimes it was also necessary to stop a video in order to explain the plot to students who were not able to follow it.

As an example, I would like to present a lesson on pre-intermediate level. I choose this particular lesson plan, presented below, to analyse the problem of one of my students, with understanding the grammar rules discussed during classes.

Level: Pre-intermediate
Number of students: one

Subject: *Promises, promises*
Teaching aids: computer, Internet connection, copies with additional exercises, course book New English File, Pre-intermediate (Latham-Koenig, Oxenden & Seligson, 2006a).
Lesson aims: *Vocabulary*: jobs; *grammar:* will/won't (decisions, promises, offers);
Stages of the lesson: Warm-up: playing the 'matching-pictures' game with vocabulary from the previous lesson.
Revision: grammar exercise on will/won't (predictions)
Reading:
–reading the text 'Promises, promises' and exercises;
–completing new words (making the map of words with the names of occupations mentioned in the text);
–practising pronunciation.
Grammar:
–course book exercises;
–presentation about the usage of will/won't;
–additional exercises.
Revision: exercises on grammar and vocabulary from the lesson.

The above lesson plan was not very successful in terms of understanding the new grammar rules I introduced during classes. I had to shorten it and think of some new exercises. It started with a warm-up exercise based on matching the photos of activities which presented the opposite verbs from the previous lesson and then I started with grammar exercises concerning the problem of 'will/won't' constructions used for predictions'. After that short introduction, I worked with my students on the text about promises, and we did the exercises from the course book. Then they had to make a word map completing it with the new vocabulary considering the names of occupations mentioned in the text. After practising the pronunciation of new words, students were asked to complete the cartoons in the book with the sentences containing will/won't for offers, promises and predictions. At this stage, it seemed that they could understand everything, and were able to apply properly the grammar rules in the right situation. I explained once again how to use will/won't for decisions, promises and offers, giving also instructions in Polish. Nevertheless, I noticed that one of the students (the one who had severe hearing loss and who apart from speech uses also the sign language as one of the modes of communication on a daily basis) was doing all of the exercises from the course book automatically, and when asked to name the action (whether it was offering to do something, making a decision or making a promise) he was not able to do so. I asked him again whether he understands the meaning of the words promise, offering and decision, and

he was able to translate it into Polish but was not able to apply it in the exercise. Then I decided to play the scenes of promising, making offer, and making a decision and finally the student was able to distinguish those three situations.

This particular case made me think that sometimes, especially in case of grammar exercises, verbal explanation of using particular grammar rules may not suffice even when it seems it does. For this reason careful observations and supporting learning by offering multiple, flexible exercises which engage different senses are important but also teacher's mimics and gestures.

On the pre-intermediate level, I often used the part of the course book (English File Third Edition) devoted to a video story which shows the main characters' behaviour in a variety of real life situations. Such lessons contain lots of interesting dialogues and phrases which are very much appreciated by my students. Each episode finishes on a cliffhanger, which makes learners cannot wait to discover what happens next. Such a lesson unit usually consists of several short films and related vocabulary exercises. For this reason I also divided my lessons into three parts. The example of such classes is illustrated in the plan below.

Level: Pre-intermediate
Number of students: one
Subject: *In the restaurant (episode 3)*
Teaching aids: computer, Internet connection, copies with additional exercises, course book New English File, Pre-intermediate (Latham-Koenig, Oxenden & Seligson, 2006a).
Lesson aims: *Vocabulary*: food, restaurant; Social English phrases
Stages of the lesson:
Warm-up: filling the spidergram with vocabulary connected with restaurants and eating out,
Watching the video story (part 1):
−putting a sentences from the film in the right order and practising the dialogues.
Watching the video story (part 2):
−practising food vocabulary;
−flash card exercise;
−dialogue exercise.
Watching the video story (part 3):
−exercises with social English phrases;
−playing roles.
Revision: practising pronunciation vocabulary from the lesson.

As a warm up exercise I asked my students to gather the vocabulary connected with the topics of eating out and restaurants and to insert them

into spidergrams. Then they watched the first part of the video story from the coursebook materials. I played the films with English subtitles so that they could receive all the information presented. After that they were asked to order the phrases to write sentences. Then they were supposed to practice with the teacher short dialogues to learn how to make invitations for lunch in English. Next, the learners saw the second part of the story and they received the flashcards with vocabulary from the video. The cards contained visual images and phonetic transcriptions of the matching words, and the task for the students was to name those objects. In this way they could practice reading the phonetic transcription and use the flashcards later when revising the vocabulary at home. The third stage of the lesson was watching the last part of the video story and complete the empty balloons on a poster, which I prepared beforehand, representing similar situations with the phrases that appeared in the video.

Following the suggestion of Domagała-Zyśk (2013a), during each lesson, according to individual needs of each learner, I wrote all my explanations and new words on a piece of paper. This not only served as a 'blackboard' helping a student to follow the lesson and understand it, but also as a part of a notebook which he or she used at home to revise. For this reason I had to use different colours, highlights and pictures which helped them to memorise the content of the lesson. Most of the students liked the classes with the episodes so I was using them after more difficult lessons to increase the motivation of the students.

4.3 Intermediate level

The students who took classes on the intermediate level were mostly hard-of-hearing. For this reason, I decided to make use of films and some listening exercises offered by the selected course book (New English File, Intermediate level). The lesson presented below was focused mostly on acquiring new vocabulary, practising pronunciation and broadening the students' knowledge about different cultures. Apart from the exercises offered by the book, I made use of a short, funny film where models of a famous fashion designer present Italian hand gestures. I followed the lesson plan illustrated below:

Level: Intermediate
Number of students: one
Subject: *Modern manners*

Teaching aids: computer, Internet connection, copies with additional exercises and expressions from the film, course book: New English File, Intermediate level (Latham-Koenig, Oxended, & Seligson, 2006b).
Lesson aims: *Vocabulary*: adjectives describing feelings; better knowledge about cultural aspects of communication
Stages of the lesson:
Warm-up: Short film about Italian hand gestures.
Practising vocabulary and gestures from the film.
Speaking: discussion about cultural differences.
Reading: 'Culture shock':
−translation of the text;
−preparing glossary with transcription of the new vocabulary;
−pronunciation exercises.
Listening exercises.
Revision: exercises on the vocabulary from the lesson.

As a warm-up to my lesson, I used a short film about Italian hand gestures, which in a funny way shows how differently a foreigner may perceive our body language. This exercise serves as a departure point to the main topic of the lesson, which is the differences in behaviour among cultures, then to a short discussion about them and finally speaking exercises offered by the course book. Usually students found this part of the lesson amusing and eagerly participated in the exercises. Most of them already had some experience of travelling abroad and were happy to share their knowledge.

The next step of the lesson was reading exercises. I used the text "Culture shock" offered by the authors of the chosen course book (Latham-Koenig, Oxenden, & Seligson, 2006, p. 38). After reading and doing exercises, the student had to translate the whole text and find the new words. Then, the vocabulary was gathered into a glossary. I helped the student to write the phonetic transcription of the words and together we practised their pronunciation. To make sure that he or she is able to recognize the new word from speech, at the end of the classes I gave a short dictation. After finishing the reading part, the student had to do the listening exercises included in the book. However, instead of playing the recordings I read the transcriptions myself, so that the learner was able to lip-read what I was saying and better understand the speech. At the end of the classes, I asked students to do some revision exercises. To sum up, I mainly focused on practising speech perception and production, as well as enhancing the students' knowledge about the world.

The success of this lesson depended in particular on the student's interests and language skills. Most of them liked the cultural content. Learners with hearing loss are often deprived of such information which

consider not only the English speaking countries, but often also their native country. Thus, when they can learn something new or surprising, they eagerly take part in it.

The most problematic part of the lesson turned out to be practising pronunciation and doing listening exercises, which in case of my students required more attention on the part of the teacher. When such activities are repetitive, it quickly discourages them or even annoys them. This in turn influences their motivation and willingness to continue learning. On the other hand, such exercises stimulate the acquisition of speaking abilities. According to Moog and Stein (2008) "with recent changes in technology, developing natural-sounding, speech has become an attainable goal for children with hearing loss. Increased access to sound significantly affects the ability to perceive speech well enough for many deaf children to develop intelligible speech if given appropriate help to do so" (p. 135). In that way, the auditory access provided through hearing aids, together with proper exercises, can make it possible to teach hearing impaired students proper pronunciation.

It turns out that in the case of some students depending on the degree of hearing loss, the use of visual teaching and learning aids (phonetic transcription) as well as hearing aids seemed inevitable to foster a foreign language acquisition. When the teacher uses audition together with vision (like for example in the dictation exercise), it can better show the speech in natural, everyday situations. Moreover, "children and adults using cochlear implants and/or hearing aids usually perform better on tests that provide visual cues of lip-reading compared with tests administered in the auditory alone condition" (Paatsch, 2010, p. 60). What is more, hearing aids/electro-acoustic devices may distort the correct reception, observing the lip movement helps significantly to get the idea on how the speech organs work and how the proper articulation should look like, which triggers speech perception and later production. This shows that it is possible to make use of dictation exercises also in case of students with hearing loss. Nevertheless, there must be prepared the special conditions to do it. Even though the students themselves were not quite convinced about the dictation activity at the beginning, it turned out that they were doing well while filling the listening exercises.

5 Conclusion

Having conducted a number of lessons and after a careful analysis and observations drawn from my experience in teaching I came to a number of

conclusions which seem to be coherent with the recent studies in teaching English as a foreign language to D/HH students.

Firstly, since there exists a great deal of different special needs associated with the learners with hearing loss, a one-fits-all solution does not yet exist, so it is important to observe carefully our students and be sensitive to their problems. Thus, the teacher's best judgement is necessary to choose the methods and materials that would be the most appropriate for the individual learner.

In spite of the shortage of specific methods and materials it is possible to adapt the available materials and strategies to the needs of D/HH students which I have tried to demonstrate with the above examples of lessons.

Such classes may touch interesting topics and employ new technologies. If combined with proper preparation by the teacher which takes into account the various individual needs of learners, the commonly used materials can be successfully adopted when teaching students with hearing loss. The limitation to my study, however, was the fact that I worked under privileged circumstances, with individual students or two students at a time. Also the technical facilities were above average. Nevertheless, thanks to such a situation I could observe my students closer and more carefully. The total number of learners I had a chance to work with helped me to notice the common problems particular students may encounter while learning a foreign language.

In conclusion, even though a significant progress has been made during the past years within the field of surdoglottodidactics, there still exists a great need for foreign language teaching materials and handbooks for teachers who want to create the most favourable environment for their D/HH students.

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