

Renata KOŁODZIEJCZYK

CHAPTER SIX

ON THE NEED FOR POLISH LANGUAGE LESSONS FOR HEARING-IMPAIRED STUDENTS

ABSTRACT

Hearingimpaired students begin their studies with different levels of communication skills in the Polish language. As former students of various secondary schools, they know different means of interacting with the environment and speech is not always their preferred mode of communication. The decision to continue their education at university level obliges them to improve their speaking and writing skills in the native language. This is necessary for independent study, i.e. taking exams and writing theses. This paper will provide a description of the most common difficulties encountered by hearingimpaired students in constructing accurate texts in Polish. It will also describe the methods used in Polish language classroom that can help to overcome these difficulties and to improve the communication skills in Polish.

Keywords: *hearing-impaired, language competency, Polish*

INTRODUCTION

Hearingimpaired students begin their universitylevel education unsettled by many fears but also driven by the hope for development and for an independent life and a professional career. Their fears concern the requirements and the level of difficulty at the university but primarily their communication skills. The most common questions they pose are: Will I be able to communicate effectively with teachers and colleagues? Will I be able to understand the content of lectures and

courses? Will I be able to join discussions in classes? Will I understand the academic literature? Will I be able to write papers and other assignments? Will I work fast enough? Will teachers and colleagues accept me with all my difficulties and limitations? Will it be possible to receive any form of support and use adapted facilities?

These concerns are well grounded as every hearingimpaired person works on their communication skills already from a very young age intending to attain the linguistic proficiency equal to that of hearing people. However, the results of their work are often unsatisfactory and they fail to provide the hearingimpaired with the opportunity to start their own independent social and professional life. Prospective students represent very diverse levels of communication skills, both in speech and in writing. Some speak very accurately, have a rich vocabulary and employ complex syntactic structures. Their difficulties only surface in imperfect pronunciation, sporadic linguistic mistakes, mainly in style or idiomatic language, and most commonly in problems with participating in group discussions and with comprehension in challenging conditions such as dim lighting or noisy surroundings. Others are proficient in Polish Sign Language, which is common in students coming from households and schools that prefer this mode of communication. They are keen on using this way of communication at the university as well and seek the help of a sign language interpreter. They prefer not to use Polish, which is often rather poorly developed. Still others stem from a different, individualized communicative background. All these groups of students need help but each of them on a different level.

Students with hearing impairments are offered support in the form of equipment such as induction loop systems or FM systems and in the form of help from sign language interpreters, transliterators who use cued speech, transliterators who render texts simultaneously or personal assistants who help with note taking and inform the students of any changes and announcements. However, what they also require are dedicated language courses that would develop their linguistic and cognitive competence. Courses pertaining to this category are: individual courses in English that allow for the adaptation of techniques of foreign language teaching to the hearing and linguistic abilities of each student; individual consultation sessions in diverse academic subjects where explanations of problematic topics are offered to hearingimpaired students; proofreading sessions where students receive help in avoiding linguistic mistakes when preparing their papers and theses. One particularly important and necessary course is a Polish language course that promotes the students' comprehensive linguistic development in both speech and writing.

DECISIVE FACTORS IN LINGUISTIC DEVELOPMENT OF A HEARINGIMPAIRED PERSON

Contrary to the common belief, humans are able to develop their linguistic skills not only during childhood but also in adult life. Research has demonstrated that people with hearing impairment can acquire certain competences later in their life as compared to healthy children who attain them by the time they are fourteen (Kołodziejczyk 2013; Maciejewska 2012; Domagała-Zyśk 2013; Białas 2007). That is why the stage of higher degree studies can be a time of intense linguistic development if favourable conditions and opportunities are provided.

In healthy children, speaking skills are formed between the first and the seventh year of life. Researchers are unanimous in their belief that “during language acquisition children go through a variety of more or less specific stages. The age at which individual children reach a certain stage is very different but the relative order is constant. Stages are reached in the same order although in some children they happen one right after another and in others they are further apart” (Aitchison 1991). This principle is also observable in children with hearing loss. Linguists point to different ages when defining the end of intense linguistic development. Kaczmarek (1988), Smoczyński (1955), Zarębina (1965) and Rocławski (1986) see the seventh year of life as the final threshold in speech development. Aitchison (1976; as cited in: Porayski-Pomsta 1994, p. 53) notices that some features of mature language use can be observed in the tenth year of life. Kurcz (2000) and American scholars (Gleason, Ratner 2005) demonstrate that between the fourth and the ninth year of life children acquire full competence in their first language, which can be recognized through a rich vocabulary (see 2000), the employment of subtle phonetic rules, full syntax and comprehension of figurative language (Kurcz 2000, p. 73).

The abovementioned stages of linguistic development are observable in all children acquiring their first language regardless of the culture they originate from and even if a given culture uses sign language¹. The observations on language acquisition in children with hearing impairment allow the conclusion that the process of speech development is sequential, as manifested in its division into stages described in literature on the subject (Smoczyński 1955; Kaczmarek 1956, 1988; Jurkowski 1986; Kurcz 2000; Gleason, Ratner 2005). Although this division is characteristic of any human child, it may occur later in their life depending on various factors that determine their development. Sometimes the features of speech typical for a given stage persist for several years and the process is not completed even in adulthood.

Healthy children of six or seven years of age acquire the skill of using various syntactical structures. However, compared to adult speech, they use a limited number of constituents, have a low variety of linking words and phrases, use typical sentence structures repetitively, lack precision in conveying meaning, communicate with high level of generality, do not obey the restrictions of word order, use ellipsis abundantly, but at the same time also employ numerous redundant elements. These are only a few characteristics of syntax in children's texts. Nonetheless, they reveal the complexity of speech acquisition and, consequently, the need for practice.

Some syntactical skills are acquired later in childhood. Lexical ambiguity may prove to be a difficult concept but syntactical ambiguity is even more challenging. A crucial ability that is developed in the senior years of elementary school is paraphrasing as well as idiomatic and figurative language comprehension. Up to the seventh year of life children understand this type of language literally. The ability to interpret it correctly is developed when children reach school age.

Developmental psychology distinguishes three stages of linguistic and cognitive development: situational, concreteimaginary and abstract, which emphasizes the gradual acquisition of speech. Abstract language only appears in children when they are twelve years old. Speech development has a few critical periods, which is significant for teaching language to children with hearing loss. Speech cannot develop early in life, that is in infancy, and around the fourteenth or fifteenth year of life it is too late for first language acquisition (Hockett 1968; Aitchison 1986). Knowledge of the tendencies in development of healthy children allows parallels to be drawn between the stages of speech development in children with hearing impairment and those of healthy children. Such comparative analysis shows that hearingimpaired adults have the most difficulties with skills, which develop last in ordinary development.

As it was mentioned in the introduction to this paper, the level of language and communication skills in an adult hearingimpaired person depends on many different factors, but above all on the upbringing, education and therapy received. The most decisive factors that determine the character of speech disorders in a hearingimpaired child are:

1. The nature of organ damage and particularly its type, its degree and the time it occurred;
2. Effectiveness of therapy and/or implant treatment in the case of permanent hearing impairment;
3. Psychosocial life conditions of the hearingimpaired person and particularly the way and scope of communication used in the upbringing (the family where the child is brought up, the school where the child is educated);

4. Effectiveness of the methods of linguistic education and speech therapy (Krakowiak 2006, p. 9);
5. Personality traits of the person with hearing loss – including the intelligence level, ability to compensate, motivation and opportunity to integrate with the hearing, etc. (Szczepankowski 2009).

At the level of linguistic functioning, hearingimpaired students are affected by all the above-mentioned factors. However, I will consider more thoroughly those that depend directly on the influence of the educating parties and which may affect speech development in favourable or unfavourable ways.

The role of the family in speech development is crucial and inestimable. Whether the child was born into a hearing family or one where all the members have a hearing loss entails numerous consequences that determine their further growth. Being confronted with a hearing impairment diagnosis is a traumatic experience for hearing parents. Usually they are ready to do all it takes for their child to learn to speak and are frustrated with the limitations in communication – understanding their child’s intentions and needs, conveying knowledge about the world and communicating the rules they want to introduce in the upbringing. Meanwhile, deaf parents are usually familiar with the problem of hearing loss and the information on their child’s hearing impairment is not as traumatic but also they ascribe different levels of priority to speech training. Some of them prefer bilingual upbringing. Apart from using sign language to communicate with their child, they also try to speak to them, ensure that they have frequent contact with the hearing, for example with grandparents, with peers, in maternity school, and in systematic sessions with speech therapists. Children who are raised in such families have good chances for a dynamic development of speech and of their knowledge of the world. Knowledge acquired in early childhood through sign language ensures an unobstructed cognitive development and positively affects the acquisition of new skills in oral language. Other parents disapprove of auditory-language upbringing, for different reasons, but mostly because of their personal experience. They are not concerned with appropriate hearing implants or speech therapy. They communicate with their child solely using sign language and they prepare them to function in a “linguistic ghetto”.

The influence of the school is a continuation of family upbringing. Children with hearing impairment are educated in diverse institutions: mainstream schools, integration schools and special education institutions. The school environment where a hearingimpaired child is educated is incredibly important for their linguistic development. The language codes theory is very adequate for the description of this situation. In mainstream and integrating schools where children constantly interact with people who use accurate Polish and receive help from a supportive teacher, they get the opportunity to master the elaborate language code, acquire a rich vocabulary, and refined grammatical structures that prove helpful in literary

and academic text comprehension. However, it may occur that the child is not ready to cope with the requirements of mainstream and integrating schools and that the support offered there is insufficient, which would mean that even when remaining there, the child would not make progress.

The special school environment provides comfortable conditions for educating hearingimpaired children. Specialists, who are familiar with the difficulties that this group of students encounters, work with their pupils in teams of less than ten. This facilitates individualized teaching. Unfortunately, very often this environment constitutes a 'hermetic' linguistic circle of sign language users and users of the so-called deaf and mute language (*gluchoniemski*) that has a poor vocabulary and grammar and is highly contextual for the sake of efficient communication. As a result students who finish these schools, especially those who live in school dorms and rarely go home, master only a specific kind of restricted language and for them interacting with speakers at university level as well as independent reading of textbooks becomes a challenge.

The influence of the educating parties is tied directly to the choice of linguistic education method. In deaf families the dominant method is bilingual education, which is biased either towards sign language or towards speech. In hearing families at the initial stage, the tendency is to concentrate on supporting speech development that is carried out through auditoryverbal, oral and cued speech method. This influence is modified when children go to school. While mainstream or integrating schools reinforce and maintain the oral therapy, special institutions offer diverse methods of linguistic education but mostly use sign language or total communication. The factors described above result in a high diversity in linguistic skills among hearingimpaired students who undertake higher education even though their mental capabilities may be comparable.

DIFFICULTIES IN STUDYING AS PERCEIVED BY HEARINGIMPAIRED STUDENTS

Insufficient skills in using oral language are an obstacle in studying. In the following part of the chapter students remarks are presented and commented upon.

- *My main problems are: my Polish is poor and really I'm not even good at reading books because my vocabulary is not rich. And because I don't write well in Polish it is difficult for example to talk or write with the hearing, because the Polish language is enormous: grammar, sentence, etc. And when I talk to the deaf who use sign language it's easy, I don't think there's any grammar. If one knows Polish very well, they won't have any problems.*

(Deaf thirdyear student of Pedagogy)

Comment: In this statement, the student notices his own shortcomings in Polish. Because of these problems, he has difficulties with reading and writing without help from someone else. He is intimidated by the enormous amounts of grammar that he has to learn to ameliorate his linguistic skills but at the same time he envies those who know Polish well as they can study with ease and tranquillity.

- *My great problem are abstract notions and stylistic styles. I have trouble with the language and with grammar. And this is the biggest obstacle, especially in exams. Teachers sometimes ask complicated questions which I sometimes misunderstand.*

(Deaf secondyear student of Pedagogy)

Comment: The student recognizes a very strong link between her linguistic difficulties and problems in her studies. It is an obstacle in taking exams, both in written and oral form, understanding questions, etc.

- *I am not satisfied because I learn parrotfashion, by heart, with my notebook, but actually I really want to know about it (I mean the subject). The person who uses cued speech says only what appears in the lecture and doesn't explain properly. I would like to have someone who uses sign language and who could explain the concepts in sign language. This is very convenient for me.*

(Deaf thirdyear student of Pedagogy)

Comment: This answer reveals that the student is not satisfied as she often has to learn by heart, word for word, without really understanding the content. In consequence, she would rather use sign language, which would allow her to better understand the explanations.

- *Lectures that are not transcribed precisely are a worry to me. I mean that people who transcribe lectures from recordings often write what is important according to the teacher. I understand that for students this information is enough for the exam, but I need the so-called commentaries and examples. This helps me to understand the topic and I can profit more from that.*

(Deaf thirdyear student of Pedagogy)

Comment: This answer emphasises the very important fact that hearing-impaired people have great difficulty in understanding notes, ellipses, mental shortcuts. They need complete information, often with additional explanations, comments or examples.

- *The deaf are able to study but it's also true that it's very hard and you have to study a lot, not only for exams, but also new notions, which are ordinary, understandable for the hearing, but very difficult for us. You have to read a lot and understand and learn the lectures, you have to know lots of difficult words.*

(Deaf fifthyear student of Pedagogy)

Comment: In her answer, the student points to the great effort that hearing-impaired students have to make as compared to hearing students. What constitutes the difficulty is learning new vocabulary, scientific terminology and reading.

- *I have difficulty with learning to read and write very frequently, because I have problems with the Polish language and especially with grammar; a difficult concept of the Polish language, because I have my own, that is sign language. We, the deaf, don't use phrases as in writing and we don't use grammar and so Polish is for me like a foreign language. I know that the hearing have difficulties too, they make spelling mistakes, but I think this is less of a problem. When I have serious difficulties I might even stop my actions because I feel threatened. Such a situation diminishes my motivation for further work. I also have problems with readings because some books are very difficult and vocabulary is unknown to me. I sometimes had to use a Polish dictionary or PWN (Polish Scientific Publishers). Some subjects are incomprehensible and then I have to learn a lot until I understand, but not always do I understand.*

(Deaf thirdyear student of Pedagogy).

Comment: The student brings attention to how difficult Polish language learning is for the deaf who treat it as a foreign language. It often requires using dictionaries of Polish language and other publications. Although sign language is much easier, it is not an effective means of communication at the university. Interactions with academic teachers and other students can be facilitated by cued speed and writing. The obstacles in communication have a detrimental effect on their motivation to study continuously demanding work, which produces the threat of academic failure.

- *Almost each course requires to write a term paper, an essay, a review, etc. Such assignments are difficult for me because I have to gather materials, think my opinions through and I need to use rich vocabulary. I envy the hearing, who can write their papers beautifully and accurately as far as grammar and style is concerned. I cannot compare to them but I write each of my assignments alone, without anyone helping me. I don't even ask anyone to correct my ideas and phrases. I do it because I want to convince myself that I can write my works independently. I only consult my friend on the topic, if I understood it correctly, and the expected form of the assignment. Sometimes my work is not well fitted to the topic and then course teachers are unpleasant and tell me that I didn't try hard enough or that I wrote but silly things. It makes me sad. Exams and tests – thanks to them I can verify my knowledge and pass the semester. They aren't easy and not because I didn't study hard enough but mainly because the content is difficult to*

understand. There are lots of new notions or easy notions are replaced with more complicated ones so that the lecture uses a more academic language.

(Deaf thirdyear student of Pedagogy)

Comment: The linguistic form of this answer in itself is a proof of well-developed language skills for a person with hearing impairment. Unfortunately, it does not change the fact that she feels her knowledge and skills in Polish are insufficient. She complains about her slow pace of work and the frequent necessity to use dictionaries. Sometimes she misunderstands the instructions or the content of an exercise, which results in disagreements and unpleasant situations in class. However, the student also displays how determined she is in achieving linguistic proficiency, she is ambitious and ready to make effort in order to be successful and stimulate her own growth.

- *I can say that I've made some big progress since I started studying. I am a little better at writing but I'm not as good as the hearing. For example I had this answer that I'm writing now checked by my friend to correct grammar and logical relations. Sometimes I have great difficulty understanding some of the lectures. They are written in a very difficult language. But thanks to the help I receive from others I can learn some notions by heart, for example when the instruction is to enumerate. Sometimes it's so hard that I can't understand and I have to simply learn by heart. For sure I profit a lot from my studies because I can say that I know certain words or that I have better knowledge of the world.*

(Deaf thirdyear student of Pedagogy).

- *While studying in this university, my big accomplishment is the gradual overcoming of communication barriers and also a gradual development of my vocabulary and pedagogical knowledge. What is very useful is the help I receive from my friends. I have my various assignments and homework checked to make sure they are correct linguistically and also they tell me what is problematic in my papers. It's very profitable for me because my parents are deaf and they also have difficulties. Hearing parents can help more. Thanks to this help, I could manage to finish my studies.*

(Deaf secondyear student of Pedagogy)

Comment: In the two answers above, students underline the value and express gratitude for the support offered to them at the university in order to promote dynamic development. They emphasise the fact that for some students, help is hardly accessible if they come from deaf families and do not receive support there. They notice their own progress in social communication, linguistic and pedagogical knowledge. They consider this progress as their personal success.

- *I'm happy that I have more and more success and that there are people there to help me, explain, say what is meant. The teacher wrote a simple*

word (noted down a word from the lecture to understand more easily). She asked if I understood. If not, she noted down an example and told me to write another example. But I'm not able to study by myself, without help, because I don't understand. I note down new words so that the teacher explains it to me. Now I'm writing about my failure: I can't really write myself, for example an assignment, because I don't have a choice of words to use because my Polish is not rich.

(Deaf thirdyear student of Pedagogy)

Comment: The form of this answer is itself an account of the difficulty deaf students face when they try to construct a text that would have accurate vocabulary, grammar and style. The student expresses his joy and gratitude to a teacher who helped him develop his language skills. He feels that courses of this type are indispensable, as he doubts he would be able to study alone. Similarly as the previous answer, this one also underlines the value of additional examples as help in understanding phenomena and concepts.

- *Now I can say and thank Professor Krakowiak for organizing for us, the hearingimpaired, a campaign with help in studying, explanations, help and the necessity to inform of important announcements such as the dates of tests and exams, what we have to prepare, study or read. I even have my assignments checked by my friends to correct grammar and style. Because of my hearing I have problems with writing. They talk to me, or rather us, the deaf, a lot but these are chosen people who really want to help and also talk on various subjects.*

(Deaf secondyear student of Pedagogy)

Comment: In this answer the student also highlights the need for constant help in written assignments, i.e. appropriate rendering of ideas, and especially in grammatical and stylistic accuracy. It is worth mentioning that student peers frequently offer help and this support should be more organized and reliable. The student is grateful for this dependable coordination.

- **What are the most common linguistic difficulties among hearingimpaired students?**

Krakowiak (2012, p. 130) distinguishes the following symptoms of speech disorders in hearingimpaired people:

- Irregularities at the level of content, for example incomplete utterances, lack of structure, ambiguous and incomprehensible phrases;
- Irregularities at the level of linguistic structure, for example developmental, lexical and syntactic neologisms, developmental semantic neologisms, agrammatism, disgrammatism, linguistic interference;
- Irregularities at the phonetic level:

- Prosody disorders: aprosody (monotonous pronunciation, lack of intonation or stress), dysprosody, chanting (pronouncing syllables separately), syllabising (pronouncing individual letters separately along with epenthesis, i.e. superfluous vowels), lack of stress, faulty stress;
- Speech disorders: phone deformation, deformed co-articulation, substitution, elision (reduction, skipping phonemes), epethesis (adding phonemic elements), metathesis (wrong phone order);

Numerous linguistic research, both Polish and foreign, has confirmed the variety of linguistic disorders as listed above. It can be observed in oral and written discourse in hearingimpaired people, even though their skills are much better developed than, for example, those of hearingimpaired middle school students.

Research by Kołodziejczyk (2011, pp. 41 – 43) concerning grammatical skills analysis has demonstrated that students with hearing impairment are usually able to:

- independently construct dialogues and narrative texts,
- maintain the order of events in stories,
- construct coherent wellstructured texts,
- employ all types of sentences, which may be further elaborated to say that people with a more advanced competence use compound sentences quite often, a little less frequently developed simple sentences, complex sentences and compound-complex sentences; however, less competent people mostly use developed simple sentences,
- use rich, even sophisticated vocabulary although it is more common in people with the highest level of competence,
- apply a variety of inflection forms,
- attempt to adapt the inflected form of a word to the requirements of the chosen syntax,
- attempt to use Polish idiomatic expressions; however, abundant use of these forms is found only in people with the highest level of competence

The most common difficulties they encounter are the following:

- omission of important elements of the sentence,
- incorrect use of reflexive pronouns,
- omission or incorrect use of prepositions in prepositional phrases,
- omission or incorrect use of conjunctions in multiple sentences,
- trouble with choosing the correct form of the verb to express the intended meaning (choice of tense, mood and person),
- incorrect use of rare inflected forms or derived words which sometimes results in using non-existent forms,

- incorrect choice of words to express the intended meaning overuse of the nominative case for nouns and adjectives and of the infinitive for verbs,
- misunderstanding and incorrect use of phrasemes.

The understanding of the metaphorical meaning of some expressions by the hearingimpaired is a crucial process. It may be perceived as a test of cultural-linguistic competence. Research by Białas (2007) demonstrates that generally adults with hearing impairment have a low understanding of metaphorical expressions (the study group comprised ten people between twentythree and thirty years of age). “They do not understand expressions which have metaphorical meaning, which is confirmed by both linguistic test analysis and selfevaluation where they reveal that the interpretation of these expressions poses a great problem to them and that they do not use them in casual conversations. It is possible to hypothesize that the main reason for this difficulty in deciphering metaphorical meaning is the way hearingimpaired students communicate (*Signed Polish, System Językowo-Migowy*) and the therapy methods used in early childhood when children are purposefully prevented from using metaphors as supposedly it might hinder the process of learning new meaning and lead to creating ‘a false image of the world’” (Białas 2007, p. 315).

Not only Polish hearingimpaired students have trouble with mastering the grammatical aspect of language but it is generally acknowledged that Polish is particularly hard because of the numerous inflected forms, declination and conjugation that have to be learnt. Research conducted among hearingimpaired Americans (Quigley, Smith, Wilbur 1974, Wilbur, Goodhart, Montandon 1983; as cited in: Domagała-Zyśk 2013 p. 55) has revealed their difficulties with:

- Mastering the system of nouns, verbs and pronouns use,
- Choosing the correct verb form,
- Using infinitive complements, interrogative sentences, relative clauses, and compound sentences,
- Constructing phrases containing comparative adjectives, reflexive pronouns, modal verbs, quantifying expressions, pronouns and prepositional phrases.

Research by Paul (2001, as cited in: Domagała-Zyśk 2013, p. 55) has shown that “former secondary school students with hearing impairment constructed sentences structured similarly to those created by hearing children between eight and ten years of age. In their written answers they used fewer multiple sentences, the language was more stereotypical, contained more nouns, verbs and attributes but fewer adverbs, operators and conjunctions. Students in the study group made more mistakes as far as structural accuracy is concerned and their answers were less interesting and less coherent than those of the hearing.” Other research (Musselann and Szanto 1998, Antia, Reed and Kreimeyer 2005; as cited in: Do-

magala-Zyśk 2013 p. 56) confirmed that the findings of the Polish one were correct in stating that the hearingimpaired that receive their linguistic education in mainstream schools achieve average and above average results much more frequently. Relatively good results can be observed in the subscales that assess structure, punctuation and spelling, but what poses difficulties are syntax and lexical accuracy. Research (Channon and Sayers 2007; as cited in Dmagala-Zyśk 2013, p. 56) comparing the competence of hearingimpaired students from Gallaudet University with that of hearing students shows that “students with hearing impairment made more mistakes in function words than in content words use. As for function words, they overused them and as for content words, they overused them too and also omitted or replaced them incorrectly. They also had trouble with punctuation, avoiding full stops and commas. Their use of articles and specifiers was scarce. Definite articles were overused and indefinite article failed to be used in necessary places. Frequently there was a lack of pronoun use. All function words, pronouns, articles, conjunctions, modal verbs and operators were used correctly in around 50% of cases. The authors explain that function words are usually short, unstressed and ambiguous, which makes them more difficult to notice and recognize through hearing or lip reading. Because of these difficulties, not all secondary school students can achieve the level of language skills that would allow them to attend university.”

Polish hearingimpaired students, who learn English as a foreign language, claim that it is much easier than their native language. However, research by DomagałZyśk (2013, pp. 215 – 222) demonstrates that there is a strong relation between speaking and lip reading skills in native language and in foreign language. The higher the level of competence in the native language, the better the skills are in a foreign language, although it is always considerably poorer than in the native language. This is another argument for the possibility of continuous work on improving language and communication skills in the native language.

Along with grammatical mistakes the hearingimpaired also struggle with various speech disorders. Research by Trochymiuk (2008, pp. 16 – 23) demonstrates that despite the numerous factors that determine speech development, phonetic features of pronunciation in people with hearing impairment have a universal character across the world and regardless of the ethnic language:

- Pronunciation of high vowels is lowered and that of low vowels is heightened, while back vowels are fronted and front vowels are centralized,
- The hearingimpaired attempt to alter vowels by increased movements of the jaw rather than placement of the tongue adequate for the pronunciation of a given sound,
- Front vowels i, y, e are deformed more frequently than back and central vowels a, o, u,

- Sometimes vowels and diphthongs are omitted,
 - Oral vowels are strongly nasalized as an effect of insufficient control of the movements of the soft palate,
 - Problems with consonants pronunciation also occur: the highest accuracy (at the level of 60 – 85%) is achieved for consonants m, p, t, x, l, r, d, n, f, and the lowest accuracy (at the level of 0 – 25%) is for consonants dź, ź, dż, ć, dz, bi, wi, mi, cz, ź, gi, c, ś. There have been no cases of accurate pronunciation of ź and dź.
 - Irregularities of consonants pronunciation concern voicing and devoicing, changes in the manner of articulation, changes in place of articulation, replacing nasal consonants with oral plosives, omission of target consonants or of a segment of a consonant (e.g. friction or stop),
 - Phonemes, which can be controlled through hearing at least partially, are imitated on that basis, sometimes in a deformed manner, depending on the number of features available. If using hearing feedback while talking is not possible, people with hearing impairment use their pronunciation on the articulation (sensimotor) feedback because visual features of vowels are also important as hints,
 - In speech prosody a variety of irregularities can be observed concerning different features of speech signals: rise (intonation), intensity (loudness, stress), vowel length (tempo, rhythm) and quality of the voice. These disorders originate from difficulties in controlling speech signals through hearing and also, indirectly, from breathing, muscle tension and articulatory system disorders.
 - The intonation is generally raised as compared to the norm, fundamental frequency is higher, the scope of frequency changes is narrower, reception of speech melody is flat and monotonous (Sieńkowska, Gubrynowicz 2001, 2002; as cited in: Trochymiuk 2008).
 - The voice of people with profound hearing impairment is soundless, lacklustre, swaying and hard to keep at one level. It is strained, the sound attack is hard and the neck muscles are tense, time of voicing is considerably shorter, scope of voice is narrow and voice intensity is heightened.
 - Functioning of the articulatory system: the functioning of lips and tongue is sometimes limited, there are irregularities in soft palate movement which leads to nasalization and disorders of voice emission coordination and spastic voicing disorders (ManieckaAleksandrowicz, Szkiełkowska 1998; as cited in: Trochymiuk 2008).
- Krakowiak (2012, pp. 131 – 132) mentions four groups of speech disorders in people with hearing impairment. This division is made based on the causes:

- audiogenic (audiogenic dyslalia), e.g. insufficient amounts of models caused by difficulties in reception, self-control and concealing difficulties in articulation;
- graphogenic, caused by the influence of writing – “letter pronunciation” (voicing, epenthesis, excessive vocalisation) and the influence of finger spelling (deforming vowel length, stress, intonation, voicing, epenthesis)
- compensatory
- consequences of excessive strain on speech system muscles (hard sound attack, additional plosion and friction, superfluous pauses),
- consequences of excessive movement of the supraglottal cavity, especially the jaw and the tongue,
- stopping fricative phonemes (stabilising the place of articulation),
- apparent nasalization (excessive resonance of skull cavities and bones).
- Iatrogenic (deformations caused by therapists – hearing people who represent inaccurate pronunciation models while helping)
- Pathologically slow speech,
- Excessive plosion in articulating plosives,
- Interdental (even interlabial) articulation of dentals,
- Hypercorrection in pronouncing consonant clusters.

All of the abovementioned difficulties, which can be observed in hearing-impaired students’ speech, are a hindrance to everyday social interactions at university but also to unrestricted access to knowledge, participation in classes, taking exams and preparing papers, especially theses.

POSSIBLE METHODS OF WORKING WITH THE DEAF IN POLISH LANGUAGE COURSES

The above analyses of language skills suggest specific principles for an outline of a Polish language course that is relevant. What should be practiced are comprehension skills (literary and academic text comprehension, polylogue comprehension, i.e. group discussions), speaking (e.g. clarity of speech, accurate use of speech prosody, enriching vocabulary, improving grammatical accuracy in inflection, morphology, word formation and syntax, using different styles, using phrasemes (sayings, metaphors, idiomatic expressions)), and writing (e.g. writing summaries, taking notes, paraphrasing texts, writing essays and academic papers, including theses, creating footnotes and bibliography). Agnieszka Dłużniewska (2010, p. 39), who has been a speech therapist and a support teacher for the deaf and hard of hearing children and students for many years, emphasizes that “improving their competence in this domain should concern both oral and written discourse and take into consideration

the functions it might have in organizing the process of communication, including the ability to inform, evaluate (estimation and assessment), and argue, among others. The analysis and interpretation of any product of culture requires the student to possess knowledge on the phenomena of the surrounding reality and the skills that allow functioning in the world of values, to distinguish facts from fiction, and to analyse the content of the text. Thus, accurate analysis and interpretation of literary text requires using the language efficiently in relation to the cultural reality". The author proposes a very interesting comparison of linguistic difficulties encountered by the hearing impaired and the possible methods of teaching (A. Dłużniewska 2010, p 44):

Table 1. Linguistic difficulties of the hearing-impaired students

Difficulties caused by hearing impairment	Principles of work supporting the education process
Difficulties in learning new concepts, defining them and constructing systems of concepts	<ul style="list-style-type: none"> • When introducing new topics, write down any key concepts on the blackboard and use visual aids (boards, charts, illustrations, etc.) • Explain any unknown and abstract concepts, • Gradually increase the level of difficulty, • Help in analysing the content of the text – oriented text analysis (bring attention to causeeffect relation and spatialtemporal relations).
Difficulties in linguistic structuring of the text concerning expressing opinions, judgments, arguments, evaluation, etc.	<ul style="list-style-type: none"> • Help in interpreting content, • Help in formulating answers, preparing presentation outline in the form of questions.
Difficulties in constructing utterances (poor vocabulary, syntactical mistakes, stylistic mistakes)	<ul style="list-style-type: none"> • Ask supporting questions that facilitate constructing a coherent logical storyline, • Bring attention to three-part composition of written texts, • Introduce the practicing of linguistic competence through written assignments (accurate style, grammar and punctuation).
Difficulties in selecting information	<ol style="list-style-type: none"> 1. Help in selecting material – point to important information for comprehension and learning, 2. Prepare notes with the most important information.
Difficulties in permanent memorization of content	<ul style="list-style-type: none"> • Frequent repetitions and systematic revision of important content, refer to previously discussed content, • Verify smaller portions of material more often, • Repeat key information during recap at the end of the lesson.

Limited ability to concentrate on content conveyed through hearing	<ul style="list-style-type: none"> • When presenting new material, use teaching aids that allow the content to be perceived through as many channels as possible (visual, auditory, kinaesthetic, kinetic).
Learning by heart without understanding	<ul style="list-style-type: none"> • Help by asking leading questions.

Interesting suggestions for classes that develop the ability to understand metaphorical language can be found in works by Białas (2007) and Maciejewska (2012). Białas (2007, p. 245) mainly encourages the promotion of reading classes, as “working with text enriches the lexical resources, especially as far as cognitive, ethical and aesthetic values are concerned. Exercises on a literary text will stimulate the adequate use of the new categories of words, and will also broaden the scope of associations which relate linguistic expressions to the culturebound meaning”. Maciejewska (2012, p. 202), amongst other suggestions, proposes to use puzzles. “In order to understand a puzzle it is necessary to discover and understand the meaning of images and metaphors, as well as information inscribed into the context. It is also necessary to create hypotheses using the given data and verify it. Not only does one check his knowledge of the subject but also traces similarities and differences in associations, perception and language use. Solving puzzles is an exercise for the mind in defining concepts, by reflecting, inquiring, logical thinking: it is creative, curious, cautious and critical, revealing hidden meanings and expressing ideas through words. It engages imagination, memory, thought fluency and flexibility, and also linguistic actions, such as researching equivalents for sentences, expressions, synonyms and terms.” The linguistic training based upon puzzlesolving brings to the attention of the hearingimpaired student the fact that in any text every item, even the smallest one, has meaning and modifies the meaning of other elements. It is a very useful skill in the process of acquiring academic knowledge, which is characterized by the constant need to use similar thought processes and linguistic analyses.

It is worth mentioning that textbooks for teaching Polish as a foreign language are goldmines of interesting and very useful exercises that can be used in teaching older school and university students to practice vocabulary, grammar, style, and phrasemes. They help with listening and reading comprehension practice, speaking and writing. Importantly, the exercises are ordered based on the level of difficulty and are adapted to the interests of adult students. Listening comprehension can be practiced using filling the gaps or true/false exercises, choosing illustrations for texts and other exercises using illustrations or open questions, etc. Grammatical accuracy practice comprises morphological transformations (declination and conjugation of different parts of speech), word formation (derivation processes, creating lexical fields), syntax (constructing different sentence types, principles of syntactical associations, using prepositions and prepositional

phrases, conjunctions, etc.). Both student and teacher can find many examples of interesting exercises in reading comprehension, writing, speaking, constructing various texts: communication situations, i.e. dialogues, monologues in a given subject, descriptions, expressing one's own opinions on a given subject, summarizing texts and sharing one's impressions on what is problematic.

At universities, the organization of Polish language courses, which would take into account the findings described in this paper, would create an enormous opportunity for students with hearing impairment to develop and improve their language skills during this important and difficult stage of education. All the research mentioned above clearly shows that for hearingimpaired people it is necessary to create conditions of continuous education so that they are able to finally achieve the level of competence that will enable them to be independent, and professionally and socially active.

¹ In sign language acquisition children are said to manifest initial language skills even earlier due to the quicker development of motor skills as compared to speech.

REFERENCES

- Aitchison J. (1991). *Ssak, który mówi. Wstęp do psycholingwistyki*. Transl. M. Czarnecka. Warszawa: PWN.
- Białas M. (2007). *Głusi – język – metafora. Rozumienie metaforycznego znaczenia wyrażeń językowych przez uczniów niesłyszących*. Piotrków Trybunalski: Naukowe Wydawnictwo Piotrkowskie.
- Dłużniewska A. (2010). *Model pracy z uczniem niesłyszącym i słabosłyszącym* In: AUTOR *Podniesienie efektywności kształcenia uczniów ze specjalnymi potrzebami edukacyjnymi. Materiały szkoleniowe. Part II*. Warszawa: MEN.
- Domagała-Zyśk E. (2013). *Wielojęzyczni. Studenci niesłyszący i słabosłyszący w procesie uczenia się i nauczania języków obcych*. Lublin: Wydawnictwo KUL.
- Gleason, J. B., Ratner N. B. (2005). *Przyswajanie języka*. In: *Psycholingwistyka*. J. B. Gleason, N. B. Ratner (ed.). Gdańsk: Gdańskie Wydawnictwo Psychologiczne, 375-438.
- Jurkowski A. (1986). *Ontogeneza mowy i myślenia*. 2nd edition. Warszawa: WSiP.
- Maciejewska A. (2012). *Świat ukryty za słowami. Definiowanie wyrazów przez studentów z uszkodzonym słuchem*. In: K. Krakowiak, A. Dziurda-Multan (ed.) *Nie głos, ale słowo... Wychowanie dzieci z uszkodzeniami słuchu – nowe wyzwania dla rodziców i specjalistów*. Lublin: Wydawnictwo KUL, 199 – 218.
- Kaczmarek L. (1988). *Nasze dziecko uczy się mowy*. 5th edition. Lublin: Wyd. Lubelskie.

- Kołodziejczyk R. (2011). *Osoba z uszkodzeniem słuchu w komunikacji interpersonalnej*. In: K Krakowiak, R. Kołodziejczyk, A. Borowicz, E. Domagała-Zyśk *Student niesłyszący we wspólnocie akademickiej. Informator o warunkach edukacji wyższej osób z uszkodzeniami słuchu*. Lublin: Wydawnictwo KUL. 35-61.
- Krakowiak K. (2006). *Studia i szkice o wychowaniu dzieci z uszkodzeniami słuchu*. Lublin: Wydawnictwo KUL.
- Krakowiak K. (2012). *Dar języka. Podręcznik metodyki wychowania językowego dzieci i młodzieży z uszkodzeniami narządu słuchu*. Wydawnictwo KUL.
- Kurcz I. (2000). *Psychologia języka i komunikacji*. Warszawa: Scholar.
- Porayski-Pomsta J. (1994). *Umiejętności komunikacyjne dzieci w wieku przedszkolnym. Studium psycholingwistyczne*. Warszawa: Wydawnictwo UW.
- Rocławski B. (1986). *Poradnik fonetyczny dla nauczycieli*. Warszawa: WSiP.
- Smoczyński P. (1955). *Przyswajanie przez dziecko systemu językowego*. Łódź-Wrocław: Ossolineum.
- Szczepankowski B. (2009). *Wspomaganie rozwoju dziecka niesłyszącego. Audiofonologia pedagogiczna*. Warszawa: Wydawnictwo UKSW.
- Trochymiuk A. (2008). *Wymowa dzieci niesłyszących. Analiza audytywna i akustyczna*. Lublin: Wydawnictwo UMCS.
- Zarębina M. (1965). *Kształtowanie się systemu językowego dziecka*. Wrocław-Kraków: Zakład Narodowy im. Ossolińskich.