

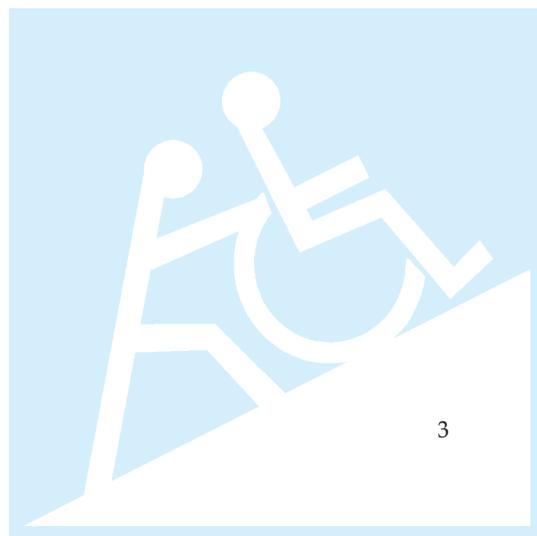


**CENTRUM
POMOCI
HANDICAPOVANÝM**

**COUNSELLING FOR STUDENTS WITH SPECIAL EDUCATION NEEDS
COORDINATED BY
THE CENTRE FOR HELPING STUDENTS WITH DISABILITIES**

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In this material we take the opportunity to briefly introduce the counselling activities for students and applicants with health disabilities and/or other special education needs for studies at Palacký University, Olomouc. Those activities are coordinated by the Centre for Helping Students with Disabilities of the Faculty of Education. In addition to the specification of main priorities and counselling activities offered, main specifications of the three most frequently represented groups of students and applicants that we meet in our counselling practice (students with sensory disabilities and with specific developmental learning difficulties) are mentioned as well as the summary of the main approaches and possibilities for adaptation of education activities in the academic environment.



1. THE FUNDAMENTAL FIELDS AND MAIN PRIORITIES OF COUNSELLING ACTIVITIES FOR STUDENTS WITH HEALTH DISABILITIES AND OTHER SPECIAL EDUCATION NEEDS AT THE PALACKÝ UNIVERSITY, OLOMOUC

Education at **tertiary level of schooling** represents one of the most complicated processes in pedagogical practice. The high demands placed on the quality of teaching are reciprocally reflected in the requirements imposed on the students by university teachers, especially in regard to their performance. One of the commitments resulting from the European standard of university education, recently adopted by the Czech Republic, concerns, among others, assurance and provision of equal **inclusion of students with special needs** (disability or other disadvantage) in university education. Several economic studies demonstrate the benefits of participating in establishing the conditions for this category of students with respect to their further involvement in the labour market and thus strengthening the economic power of the society in general. **The degree of accessibility** to universities for students with health disabilities is on the rise every year; currently, we have reached the level of developed European countries and we are also able to share our experience.

Improving the conditions of university education for students with health disabilities (or other special education needs) constitutes an integral part of a challenging longitudinal process of **inclusion**, which should be, if it aspires to be successful, crowned with professional and social inclusion. The level and quality of education achieved at this final level enables the university graduates to perform independent gainful activities, a gratifying culmination of which is less intensive financial dependence on the state supported social and organizational assistance in the future.

Legislative amendments paved the way for establishing the basic conditions for active modernization of the education environment for students with health disabilities (or other special education needs) for implementation by the universities themselves. These conditions take into consideration not only students with physical or sensory disabilities but also individuals with impaired communication abilities, including students with persistent specific developmental learning difficulties or other types of disorders. In such instances, the services afforded by the university advisory centres are of great benefit as they assist by bringing efficiency and coordination in communication between the individual organizational levels of a university and thus contribute to the continuous enrichment of specific technical, organizational and personnel conditions of the studies.

Fulfilment of the tasks and actions specified above should not be understood exclusively as an effort to address ethical issues related to health disabilities – in the long run the resources invested by the society in such supportive **measures**

are efficiently and significantly returnable. The knowledge of the EU countries, where the service departments for students with special needs are included in the education system as a matter of fact, may be used to deduce that the degree of “accessibility” of a university for students with health disabilities is going to become an indicator of its standard and quality.

We have summarized the **activities of university advisory centres** for students with special needs under the following categories:

A. *personal assistance*

- a. interpreting into sign language or signed Czech
- b. visualization of spoken language (oral interpreting)
- c. assistance with providing mobility of students with serious visual impairment or with major physical disability (or combined disability)

B. *adaptation of study materials*

- a. scanning
- b. transcription of print into Braille letters
- c. transcription of audio records of lectures and seminars
- d. enlargement of study texts
- e. final digitalization and print
- f. audio records of study texts

C. *photocopying services*

D. *counselling activities*

- a. counselling for students with special education needs
- b. counselling for the so-called intact students, intermediation of co-operation between both groups
- c. counselling for university teachers
- d. counselling for the student's family
- e. counselling for staff of university facilities
- f. counselling for the general public
- g. addressing the current problematic life situations
- h. counselling with regards to legislation
- i. psychological counselling

E. *methodology assistance, diagnostics and differential diagnostics*

- a. lending of methodology materials
- b. assistance with individual study programmes

- c. differential diagnostics of the impact the specific disadvantage imposes on the study performance
- d. methodology assistance with processing adapted study texts and the teaching approach

F. *material and technical facilities*

- a. purchase and modernization of equipment (including mobile equipment)
- b. provision of consumables
- c. purchase of technical literature

G. *grant-related activities*

- a. acquisition of financial resources to provide counselling services
- b. intermediation of financial support to students
- c. intermediation of financial support to personal assistants
- d. participation in implementation of projects organized by other organizations (universities as well as non-university organizations) and funded through grants

H. *publication and education activities*

- a. publication activities of counselling staff
- b. publication activities of students
- c. organizing expert meetings, workshops
- d. participation in expert conferences, seminars and courses

I. *Training*

- a. training of tutors and assistants among students
- b. training of teaching staff
- c. training of university staff

J. *Extracurricular activities*

- a. organizing supplementary activities for students during the entire academic year

In 1996, the Department of Special Education established the **Centre of Assistance for the Handicapped** (hereinafter also referred to as “Centre”) with support from the grant provided by the University Development Fund. This single-purpose facility, from the perspective of its technical investment and its personnel, is competent to provide specific special educational focused services to all students with special education needs who are among the applicants for university studies at the faculties of Palacký University, Olomouc (Palacký University or UP). Nationwide, these services are practically *unique regarding their scope* as compared to similar centres at other universities in the sense that the Centre at the Faculty of Education of Palacký University provides counselling to all categories of students with

any level of health disability or other disadvantage, including impaired communication ability or disadvantaged social environment.

In this manner, Palacký University is at the forefront of **respecting human rights and personal freedom** embedded in many treaties and regulations, such as the European Union recommendations and the Bologna Declaration, the Medium-Term Concept of State Policy on Citizens with Disabilities, the National Plan for Support and Integration of Citizens with Disabilities 2006-2009, and the Convention on Rights of Persons with Disabilities. Likewise, the Long-Term Plan for Education and Scientific, Research, Development, Artistic and other Creative Activities for Higher Education Institutions for 2006-2010 prepared by the Ministry of Education as well as its Update aimed at the necessity of supporting access for non-traditional society groups to university education is similar to the Long-Term Plan for Education and Scientific, Research, Development and other Creative Activities adopted by UP in Olomouc. Another goal is to continue in the provision of existing high quality and co-ordinated services for these clients with particular emphasis on their flexibility and efficiency, and to improve the conditions of studies for students coming from disadvantaged social groups or students with disabilities.

The Centre for Helping Students with Disabilities at Palacký University provides students with special education needs with highly **professional, quality and comprehensive counselling, technical and therapeutic services**, and serves in developing co-operation with the administration departments of the individual faculties, provides counselling for teachers and also co-operates with secondary schools attended by students with special education needs. The contacts with practical aspects of life mediated by the Centre enable to maintain a high professional level of university teachers and students of the study field of Special Education and other related fields included in the Centre's activities. The Centre's priority is **counselling assistance to students with special education needs at Palacký University**, or individuals applying to study at Palacký University. All counselling personnel impart their activities as part of their academic performance without any extra remuneration.

The individual departments of the Centre provide special counselling services primarily for the following **persons**:

- with impaired communication ability (communication disorders) or with communication specifics resulting from differences in cultural-language diversity
- with visual impairment
- with hearing impairment
- with movement disorders and chronic diseases
- with specific learning difficulties and attention disorders
- with several disabilities (e.g. dual sensory disability – deafblindness)
- with pervasive developmental disorders (e.g. autistic spectrum disorders)
- with mental disorders.

The counselling services provided to the clients described above by the Centre have had many years of tradition and belong among the oldest centres at Czech universities. With respect to their scope, content and free of charge provision, the counselling services offered are unique. They are provided by experts of the Department of Special Education at the Faculty, in close co-operation with the department of applied physical education at the Faculty of Physical Culture, Palacký University in Olomouc. In this manner the quality and co-ordination of the provided services are assured. Besides students and applicants for studying at UP with a health disability or coming from disadvantaged social environment, the counselling services are also used by the UP staff and teachers, teachers of applicants for studying at UP with health disabilities or coming from disadvantaged social environment and also families of these applicants.

The Report on Activities of the Centre for Helping Students with Disabilities presented annually by the Palacký University management analyses and assesses in detail the activities of the Centre.

Financial subsidies received through successful completion of projects of the Ministry of Education, Youth and Sports of the Czech Republic and other organizations established a quality basis for further development of the Centre's activities. Simultaneously, however, the number of students with disabilities interested in studying at the university has increased, necessitating the resolve to continue in the already initiated modernization of the Centre aimed at provisioning continuous support for the development of education conditions for students with special education needs.

During the implementation of projects specific relations have been established and maintained with the counselling assistance services for students with specific needs provided by the City Council Olomouc through active participation in the project Olomouc without Barriers. At the meetings, this project's working group addresses particular problems resulting from removal of construction and technical barriers that the UP students have to fight against in Olomouc. The activities include co-ordination of counselling, preparation and processing of surveys; for example, in 2004 a survey mapped out the accessibility for wheelchairs to practitioners' and doctors' offices and healthcare centres in Olomouc. The outcomes were processed and presented at the regional website of Olomouc and according to the feedback received, it is widely used not only by persons with movement disorders or sensory (visual or hearing) disabilities, but also by their assistants and guides recruited from Palacký University students. In this way, access to healthcare centres has been simplified together with the elimination of conflict situations arising due to the lack of knowledge about construction conditions and technical equipment in medical offices and centres accommodating specific conditions for the disabled. At the national and international levels, the Centre actively co-operates with the counselling centres in Brno and Prague, with the Comenius University, Bratislava and other institutions (e.g. Pedagogical-Psychological Counselling Centre in Olomouc, State Scientific Library in Olomouc, etc.) and with the Region of Olomouc.

2. Specifics of Counselling Activities at UP

The nature and scope of counselling activities extended to the students and applicants with disabilities desirous of studying at Palacký University is determined not only by the wide spectrum of individual types and degrees of seriousness of disabilities and other special education needs but also by the significant variability of requirements resulting from the scope of fields of study at the specific faculties (i.e. for example, from a student's profile).

Within the university studies at UP it is possible to specify **determinants identical (uniting) or distinct:**

- a. The identical element of requirements placed on all studied fields concerns high demands on the independence of a university student, both in terms of their mobility and individual studying.
- b. On the other hand, differences may be found, for instance, in the requirements for language competence (in Czech or foreign languages), social communication (e.g. pedagogical or clinical practical experience of students), technical competence (operating special equipment, PC work, etc.) and others.

Determining the counselling techniques and resources is, of course, primarily affected by the students themselves. In addition to the individual *personality characteristics* we have to consider the coexistence of *specifics of their disabilities* or other disadvantages making their education more complicated. The difficulties and needs of students with sensory impairments (visual or hearing) and impaired communication abilities are considerably different from the needs and difficulties of students with movement disorders.

Additionally, there have been more and more students with special educational needs who would like **to spend a part of their studies abroad**. Simultaneously, the number of applications of foreign students for studying in the Czech Republic is increasing and so it is necessary to ensure efficient co-ordination of all activities provided by the counselling centres, university departments and administration departments specified above in order to enable the students and the teachers to avail the full scope of services, including co-operation with other regional, national and international agencies (assurance of mobility during transport to the academic institution in the target country, organizing of expert internships and work experience in local education and clinical institutions, provision of interpreters, etc.).

The main problematic area for students with **hearing impairment** may be found in difficulties *with interpersonal communication* (use of sign language and the level of its knowledge by the student himself/herself, his/her schoolmates or teachers, level of oral communication, utilization of services provided by oral interpreters and interpreters of sign language or signed Czech, transcription of audio records of lectures into graphical form, consulting on problematic aspects of technical terminology, etc.) and in the requirements for *technical support* (use of amplifying systems, dictaphone, audiovisual aids, communication through internet, photocopying services, etc.).

The requirements of students with **visual impairment** are focused primarily towards the area of *technical and material facilities* (hardware and software equipment, consumables enabling digitalization of texts – transfer to Braille letters, enlargement of study texts, special printers and typewriters for the blind, etc.).

The assurance of the highest possible degree of *independent mobility* is the priority for students with **movement disorders**. The concerned activities primarily involve reconstruction of the existing university facilities in order to comply with the basic construction requirements for wheelchair accessibility, which, regarding the predominantly historic nature of these premises, requires considerably extensive funding. Students with this kind of disability have already been able to use acquired special rehabilitation aids and mobile equipment.

A special group comprises of students with **impaired communication ability**, including *persistent specific developmental learning difficulties*; this group is very heterogeneous and also the specific symptoms of these disabilities are rather variable. Students with objectively defined diagnosis of SDDL¹ need, in particular, *adjustment of evaluation conditions for their performance* (modification of testing materials or types of exams, extra time, etc.), or *formal modifications to study materials* (structure of materials, audio transcription, etc.). The variability of disorders in students with a more serious form of impaired communication ability also limits the generalization of their needs; however, the priority is to establish such conditions, *i.e. communication situations*, not preventing them from naturally expressing their real knowledge and skills (especially in persons with stuttering (stammering)², cluttering³, more serious form of articulation disorder⁴ or with voice disorders⁵. University teachers should provide their care regardless of any national, ethnical or religious discrimination. If their interventions do not reflect this approach, the potential risk of misinterpretation of behaviour or actions of a student (parent or another member of a family) or the potential risk of **cultural-language discontinuity** increases, which may subsequently result in a negative impact on all activities directly provided in the educational process at universities. Therefore, special attention has recently been paid to students from **different cultural-language background** that may have specific difficulties resulting from bilingualism or multilingualism or different cultural values and traditions that may distort their academic performance and cause problems in social interaction and communication. These concern specifics of verbal and non-verbal communication, special diet and others. In some cases these difficulties may be by mistakenly taken for symptoms of specific developmental learning disorders and other disorders, or these students sometimes even show specific types of health disability or other special education needs. Therefore, it is necessary to evaluate all of the specifics and at the university premises to create an environment reflecting and imparting due respect for cultural diversity and cultural-linguistic background; this should be executed in due compliance with the principles of **multiculturalism** and

¹ E.g. dyslexia, dysgraphia, dysorthographia, dyscalculia.

² Balbuties.

³ Tumultus sermonis.

⁴ Dysarthria.

⁵ Dysphonia.

multicultural education while appreciating the need to emphasize cultural pluralism and positively perceived equal values of the individual's cultural environment.

It is advisable to ensure that the students with cultural-language specifics have the possibility of individual diagnostics and correction of these specifics at the university through expert **speech-language therapy intervention** or through application of the vast knowledge of speech therapists from countries with longer tradition and experience with multicultural education within the adult student education system. Otherwise, there is a risk of omission, underestimation or misinterpretation of several subtle or more significant symptoms, seemingly unimportant, which, however, may eventually and negatively affect not only the **education process but also** social and later occupational inclusion.

The requirements of students with **several disabilities (combined disabilities)** placed on the counselling depend on the nature and degree of their primary health disability and its resulting symptomatology; there are either prevailing disorders *in communication or in mobility of a student*. This fact subsequently affects the specific activity of the counselling department.

All categories of students specified above, however, more or less require personal assistance, either during classes or during their spare time.



3. HEARING IMPAIRED STUDENTS

Individuals with **hearing impairment** represent a very heterogeneous group, the variability of which is in particular given by the different structure and depth of the hearing impairment, the onset of the impairment, the overall level of personality development and the social and cultural conditions under which the early and successive surdopaedic intervention took place. If a child loses hearing in babyhood he/she is deprived of the possibility of communicating using spoken language that is the main manner of presenting information in a hearing society. To communicate using spoken language is seen as a matter of course by those who can hear but it takes two to three years for a hearing child to learn the pronunciation of all sounds and also to understand what is being communicated. A hearing impaired child more naturally receives information through the *visual-motor communication system – sign language*. Children with hearing impairment are, however, born predominantly to *hearing parents* who have no command of the sign language or are not well enough to present information enabling proper development of their personality. Therefore, only children who are born of parents with hearing impairment where the sign language represent the common communication tool have good conditions for the development of communication techniques based on visual perception.

Students with hearing impairment at a university represent a very inhomogeneous *group* with differences primarily in their ability to communicate using the majority language. Students who attended primary and secondary schools for the hearing impaired usually have greater problems with reception of the Czech language. Frequently, they do not show the command of vocabulary necessary to understand the theoretic fundamentals of individual disciplines as, in addition to the Czech language, there are many foreign words or, for instance, Latin terms and these represent another language they are exposed to. Students who in their primary and secondary school years were integrated to regular schools find university studies much easier as they have had the opportunity to establish certain mechanisms facilitating communication with hearing schoolmates as well as studying on their own. Integrated students with hearing impairment also attended some foreign language classes at their primary or secondary schools, so in some cases they are able to continue learning this language at the university and thus take on the exams required by the study programme.

The spectrum and scope of services provided to hearing impaired students are always based on individual evaluation and assessment of the particular situation. Students who prefer communicating using the sign language may be *interpreted* information with *sign language*. However, it may happen that the hearing impaired student or the interpreter do not have full command of the sign language, most frequently there is lack of knowledge of the exact signs for technical terms, the meaning of which must be explained otherwise. This causes time discrepancy between the tutor's speech and the interpretation, which may result not only in disturbed continuity of the interpreted but mainly in the omission of some important information. Experience shows that this problem may be prevented by

familiarizing the interpreter with the lecture's topic in order to enable him/her to prepare and if necessary to have equivalent expressions available.

Interpreting into signed Czech, when in addition to grammar meanings carried by the Czech language flexion the spoken presentation is visualized almost word by word using signs, is easier to understand for the hearing impaired students who has sufficient command of the Czech language. However, while interpreting into signed Czech as well as into the sign language, both the interpreter and the hearing impaired student may face insufficient knowledge of signs for technical terms.

Students with hearing impairment who are good at lip-reading and are fully competent in the Czech language may be provided information in the form of *visualization of spoken Czech* (oral interpreting). Oral interpreting means simultaneous voiceless repeating of important information from the lecturer's speech in order to enable the hearing impaired student to perceive the spoken language with maximum comprehension of the contents and without delay. Oral interpreting may be even given by students from the same study group as this form of interpreting does not require any special knowledge. The student only needs to be given a short training to learn how to articulate in a manner for the hearing impaired student to sufficiently understand.

Regardless of the form of interpreting, the *interpreter's position* towards the hearing impaired student is important. It is necessary to find a certain compromise between the student's needs and organization of the lecture, seminar or lesson for other students. Experience shows that if the hearing impaired student and the interpreter sit close to the lecturer, the necessary flow of information as well as a certain degree of contact between the lecturer and the hearing impaired student, rather disturbed due to the interpreter's presence, are maintained. At seminars and lessons based on mutual communication of students it is necessary to make sure that the hearing impaired student sits where it is possible to visually identify the speaking student whose presentation is being interpreted.

The situation is rather different for the hearing impaired with surgically implanted *cochlear implant* (device, the principle of which is based on stimulation of surviving fibres of auditory nerves) or hearing impaired students whose defect is well compensated by hearing aids. These students usually prefer receiving audio information; however, very favourable acoustic conditions are needed. These students usually do not command any visual-motor communication tools (sign language, signed Czech, dactyl – fingerspelling) and also their lip -reading (speechreading) is not as perfect as in their communication they rather rely on their hearing. At lectures when the lecturer speaks loud enough, at adequate pace and does not change position often, they are able to follow the spoken presentation without any major problems. It is more difficult for them to apprehend spoken language at seminars where there are more speakers, speaking from different parts of a room and sometimes even simultaneously. Seminars are usually noisier, which does not allow the student to receive the information in a form enabling him/her to decode the entire meaning of the message.

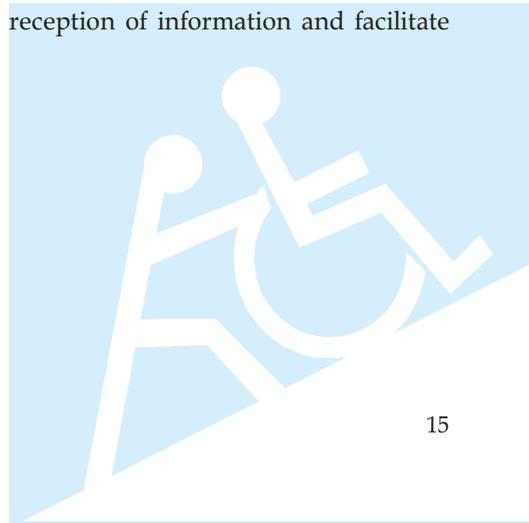
While **communicating with a hearing impaired student** it is appropriate to continuously ensure that the student really understands all essential information. To verify understanding it is better to ask questions making the student

to repeat basic information (What did you understand?) and not just ask for confirmation to “Do you understand?” A hearing impaired person who permanently faces situations where verbal presentation is not fully understood (for any reason) usually nods approval when asked about understanding as just the idea of constant attention is often very frustrating. Also, as lip-reading is rather demanding, an error may occur in understanding the presented information, which may result in serious misunderstanding, especially when it comes to setting deadlines for student’s tasks. A good solution is to assign a hearing impaired student with tasks for a semester or year-end tests in writing. If a hearing impaired student does not have a sufficiently understandable spoken presentation, it is possible to check his/her knowledge also in writing. Time given for tests is advised to be extended by at least one third compared to time provided to other hearing students.

To fulfil their required tasks, the hearing impaired students are also provided with other *special services*, such as transcription of lectures from audio records, language assistance for writing presentation and, in co-operation with the Department of Pedagogical Training, assistance with placing the students into parallel and continuous work experience.

In order to **improve the quality of pre-gradual studies** of hearing impaired students it is possible to prepare special study programmes with entrance course to university studies, acquire auxiliary study texts, syllabi of lectured disciplines and terminology dictionaries in advance enabling longer preparation, individual study plan, assignment of personal consultant among university teachers, provision of interpreting services and special aids, or offer interpreting or assistant services during the entire studies.

According to the classification of the World Health Organization **hearing impairment** is one of the most serious disabilities. It is reflected in a number of more or less successful attempts to provide hearing impaired persons with such education that would be comparable with the education standard of a hearing population and thus provide them with equal access to job opportunities in the major hearing society. Needless to say that most, though well-intentioned, efforts have not resulted in overcoming the great communication barrier caused by hearing impairment. Perhaps acceptance of the natural language of the individuals with hearing impairment, the sign language, will bring a new perspective to the possibilities of education of individuals preferring visual reception of information and facilitate mutual intercultural communication.



3. VISUALLY IMPAIRED STUDENTS

Vision impairment may be defined as a condition resulting from damage to the visual system or its functions seriously hampering the process of person's awareness in the broadest sense and affecting their overall development, formation of personality, subsequent job opportunities and existence within the society.

Blindness is such a serious disorder that it affects the entire personality of an individual. Due to blindness these people are not able to correctly, visually, control their mimics. Their ideas about the world around them are distorted, they have difficulties with managing spatial orientation and their social and employment relations are reduced. The orientation ability of the blind depends on a complex of hearing, haptic, dermal and olfactory perceptions. Blind people learn the language through hearing and often incline to verbalism.

Individuals with **residual vision** have usually suffered a serious disorder of or damage to the visual apparatus that is either congenial or acquired. This category includes people who are just on the borderline between visually impaired and blind. Their visual acuity with the best possible correction is between 6/18 and 3/60.

Residual vision is not constant. It may worsen or actually even get better depending on the cause and thus, as of the first grade these students learn by the so called double method (both printed letters and Braille letters). This category of visually impaired people shows significantly limited visual concepts, graphic abilities and it is also difficult for them to find opportunities in the labour market. These people are able to use their residual vision for spatial orientation only partially and to read and write they need adequately enlarged or otherwise modified text.

Partially-sighted persons suffer from reduction of visual acuity in both eyes, even with optimum spectacle correction, and this reduction is so significant that it causes problems in common life. It is a permanent organ defect and it is often progressive.

It is a matter of course that individuals with visual impairment, who successfully passed the school leaving exams, either at special secondary schools for visually impaired youth or at regular secondary schools, have the opportunity to study at a university.

There are no universities in the Czech Republic specializing in teaching students with visual impairment; however, many universities or higher education institutions have established **support centres** in order to provide school-related assistance to visually impaired students.

During recent years, the number of visually impaired students has increased together with the **expansion of the spectrum of fields** that they study. Upon selecting the field of study it is important to take into account not only their interest or their previous knowledge but also the suitability of the field with regards to the type of visual impairment and the available opportunities in the labour market after graduating.

Despite significant developments in typhlo technology simplifying access for visually impaired persons to information it is much more demanding for the visually impaired to study at university than for students

without disabilities. The centres mentioned above are one of possible forms helping to address the resulting situations.

The universities should already modify the conditions of **entrance proceedings** in order to reflect the needs of the applicant, which actually means, for instance, modification of the entrance examination to electronic form, printing the tests in Point Writing System or in large print, or even providing extra time for the exam itself.

During studies, the visually impaired students need, among others, modification of texts based on the specific impairment, the corresponding technical equipment, and the provision of expert counselling and advisory services.

A visually impaired student may successfully take part in studying at a tertiary education institution only if, as already mentioned, they are provided with the **material conditions and the methodological procedures** enabling them to overcome the information deficit pursuant to the sensory disability. These students can receive information primarily acoustically and also from materials written in Braille letters or in enlarged print.

Audio records of texts or even just the texts may be borrowed from libraries for the visually impaired. They offer audio records and books in Point Writing System and music materials (in special Braille notation). Audio records or digitalized forms of some lecture notes and text books may be borrowed directly from the Centre for Helping Students with Disabilities at the Faculty of Education, Palacký University, Olomouc, Department of Special Education. The same audio records of lecture notes and text books may also be borrowed from the University Library at UP.

If necessary, it is possible to **make audio records** of specific materials or to **modify these through digitalization or enlargement** so that they suit the needs of the student. When making the audio record of a text it is necessary to follow certain specifics ensuring the necessary comprehensibility of the text.

For example:

- rhythm, melodiousness and fluency of reading,
- mentioning numbers of pages, pictures, charts even with details in order to enable adequate notion,
- exact citation.

The quality of the recorded text may also be affected by the health condition of the reader or undesirable background noises. There should not be any errors in facts.

After **processing the study texts** into the Point Writing System it is necessary to make very high quality copies or save the text on a disc or CD with minimum graphic modifications (tables, pictures, highlighted texts). To be able to transfer text to Braille it is thus necessary to own a computer equipped with a reading device (scanner); after scanning the text must be checked and any errors resulting from scanning corrected. Then, using special software, the text is translated into Braille letters and printed on a printer (e.g. Everest) directly in the Point Writing System.

The computer is also equipped with the Index Obr programme that is able to recognize a documented printed in Braille Point Writing using a standard scanner. The blind can thus work with their Braille texts just like with regular

texts, including all forms of presentations and communication the computer system allows, for example, synthetic language, e-mail, Internet, etc. Therefore, the blind can easily make copies of the borrowed Braille originals; they can also transcript their own notes written on Picht typewriter into computer files for further processing.

Recently, many students have started to use their **own laptops with audio output**, and therefore publications in electronic form are the most popular. Based on the above mentioned there is an ongoing debate between the university centres on how to best modify a scanned text.

Weak-sighted students may use the computer if equipped with **special enlargement programmes** fully corresponding to the needs of a certain group of visually impaired. This kind of programme can enlarge text, enlarge only a part of a window on the screen, convert colours and set contrast as needed; they also offer synchronized enlargement and audio reading of the screen. The programmes have intelligent tracing of mouse, cursor and GUI control features, and they smooth uneven edges of enlarged text and graphics. A student can work with a highlighted cursor, take advantage of the Windows audio commands, read text character by character, word by word or line by line only by a simple movement of the cursor; the programme voices out written characters and words and supports voice synthesis in several languages, e.g. Czech, English, German, French, Spanish and Italian.

Students and teachers may, for education purposes, use, for example, Picht typewriters to write Braille letters using special paper for these typewriters; in addition they can use Dictaphones or devices such as Arie and Eureka, which are small portable computers with installed programmes and audio output. To print it is possible to connect to a regular printer or to a Point Writing printer. The keyboard has a total of twenty keys (first set of keys to write a text, second set to choose various functions and the third set enables us to move within the written text). Just to mention some functions, there is an organizer (announces the time and date of a meeting), calendar, calculator, music editor, thermometer, text editor, clock, phonebook for up to one hundred numbers, and a Braille keyboard.

In addition to Eureka and Arie, used rather by older students, it is possible to borrow a laptop with an **enlargement or reading programme**. This lending service is probably the most popular. Other devices are borrowed only sporadically.

Other aids that may be well used during university studies include classical **TV magnifying glass** and portable colour TV magnifying glasses used again by weak-sighted students. It concerns an ergonomic design of a manually operated TV magnifying glass, shaped as a computer mouse, with own portable monitor or it may also be connected to a regular monitor via the aerial or VCR output. The device contains a miniature highly sensitive camera. The magnifying glass provides an enlarged picture of the read text on the monitor; the text remains still, it is the camera that is moved. The design enables a highly weak-sighted user comfortably ready regular print in less accessible places (in the thick backcover of a book). The magnifying glass offers optional sizes of enlargement and also various reading regimes: positive, negative, coloured text or coloured background based on the weak-sighted person's needs and a photo-regime to view pictures.

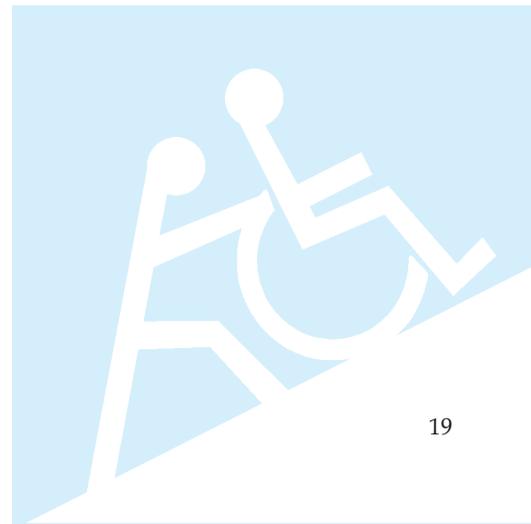
The centres of assistance for visually impaired university students should also offer aids helping the students to cope with everyday tasks related to **spatial orientation** and **taking care of themselves**, etc. Apart from a white stick, they include the following: wooden 6-dot Braille trainer, The Braille Peg Slate Size I. and II., various adapted Braille slates, typewriter with standard layout of keys for writing with all ten fingers and output in points, tape recorder, embossed picture material, Braille line attached to a computer set (the blind may read by touch what is written on the screen), Braille labeler, drawing set for geometry in mathematics, embossed maps, dictaphones used in classes and for recording lecture notes, and text books for the blind.

In order to offer optimum conditions for students with visual impairment it is necessary to provide **expert counselling activities**. These should be focused on consultations regarding study-related issues helping to satisfy the high demands of university studies as well as they should include counselling for applicants, **future applicants and their parents**.

While addressing the study-related issues, attention of the counselling services should be focused on **writing papers, the final theses or diploma theses, preparation for exams, tests and the final and state exams**.

However, counselling should not be solely focused on the visually impaired student but must also include counselling **for all teaching and other staff** who work with the student in order to make sure they are well aware of the specifics resulting from the visual impairment and thus to apply adequate approach when working with the student.

Among the services widely used by blind students and students with residual vision the most frequently used include training of routes and spatial orientation around dormitories, the school and the downtown. This training is always carried out in co-operation with schoolmates as well as with a qualified expert in this area.



4. STUDENTS WITH SPECIFIC DEVELOPMENTAL LEARNING DIFFICULTIES

Students with objectively determined diagnosis of specific developmental learning difficulty (SDLD) primarily require **modification of the evaluation conditions of their study performance** (modification of text materials or even types of testing, provision of extra time), or *formal modification of the study materials* (structure of materials, audio transcription, etc.). **The main specifics** of students with **SDLD in adulthood** include, for example, preference of the so called *right hemisphere processing* of information resulting in *difficult manipulation with verbal material* in read, heard and even written forms. Students often have difficulties with *processing longer texts* as they are unable to pinpoint substantial information. If they continue having formal difficulties with reading it may result in *deformed comprehension of the contents* (caused by too slow reading or even mutilation of words). They may also have problems with taking notes (dictation) as the student is not quick enough to *select substantial terms*. Moreover, if the graphomotor skills are grossly impaired the process of taking notes may slow down to such an extent that the student is unable to actually take any written notes. These students also find difficult to *structure texts*, for instance, when preparing outlines of papers or structuring their schooling materials. However, there are also the so called *L-types of dyslexia*⁶, which, contrary to the previous type, are demonstrated by errors resulting from extremely fast reading and insufficient revision of the contents. The student leaves out syllables or even words, guesses the text or skips lines. Frequently, we may encounter a disorder of *retrieving words* shown in the inability to find an adequate term in the so called lexicon. Denomination is slow and often inaccurate. Disorders of *phonological awareness* are the root cause of many problems in the Czech as well as in foreign languages. Students with SDLD primarily suffer from failure of the so called *metaphonological skills and metacognition*. As these are skills and abilities formed during early stages of ontogenesis, in adulthood it is not possible to correct these disorders efficiently enough; often they may only be compensated. Moreover, students with SDLD frequently demonstrate problems with *spatio-temporal orientation*. The perception of time is a matter of mastering certain linear consequence, which is mostly a left hemisphere ability. If we adopt the hypothesis of right hemisphere dominance in people with SDLD, we confirm the proven difficulties of students with time management and arrangement of activities during a day. And it is this reduced ability to manage the time necessary to solve a problem that is reflected in the individual preparation of students for tests and exams as well as to keeping the time limit during exams.

In our counselling practice we often get complaints from students with SDLD regarding the **attitude of teachers**. However, not always it is the teacher or counsellor who is responsible for the inadequate attitude. In the real university life, in the Czech Republic as well as abroad, it is not unusual that students conceal such learning disorders, both at

⁶ The so called left hemisphere processing predominates.

entrance examinations and during studies. They are afraid of not being accepted to a university or of the negative perception of their disorders by their environment. They only start complaining when they fail an exam (e.g. in foreign language) or when they have problems with writing or defending a thesis or other paper.

A completely different case is the matter of *ungrounded emphasis* on SDLD even if there is no actual diagnosis, just difficulties with learning. Unlike primary and secondary school that may get financial subsidy for integrating pupils with SDLD, universities cannot be suspected of trying to have “students with objective diagnosis”. Foreign counsellors, however, know this problem well. They talk about “declaration of help”, for instance, to individuals with dyslexia based on which the student decides to study the respective faculty to only find out that the actual support lags behind the originally promised.

Under the **primary counselling strategies** it is possible, for example:

- ❑ to analyse a student’s learning style (learning strategy), technique of spoken and written presentation and propose new ones
- ❑ to analyse the psychological problems, secondary symptoms of SDLD and experience with the intervention so far
- ❑ to propose a onetime financial subsidy for material and technical equipment (onetime scholarships)
- ❑ to propose participation in special seminars or courses, and consultations
- ❑ to ascertain whether the student has been prescribed any pharmaceutical therapy.

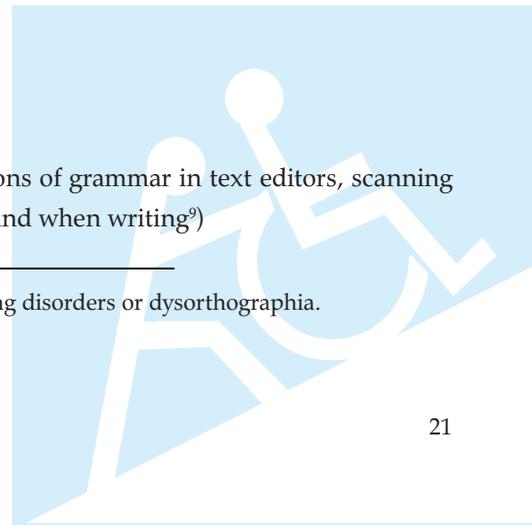
With respect to **evaluation of study performance** it is possible:

- ❑ to modify the forms of testing (replace written test with extended oral exam and vice versa⁷)
- ❑ to propose extra time to complete the project or task⁸
- ❑ to propose extra lessons, special consultations
- ❑ to propose the use of devices (laptop, Dictaphone)
- ❑ or special software (learning or designed to correct disorders)
- ❑ to suggest using literature (monolingual dictionaries)
- ❑ to verify the manner of using compensation strategies (corrections of grammar in text editors, scanning and enlargement of texts, modification of contrast and background when writing⁹)

⁷ Mere completion of missing parts of the text is often insufficient in cases of reading disorders or dysorthographia.

⁸ In most countries usually 25% of extra time, in U.S. even 50% extra.

⁹ Use of colour slides or change in contrast of text and background on the screen.



- ❑ audio record of testing instructions and tasks enabling reproduction by the student
- ❑ to intermediate modification of study texts and its audio records (establish library of texts)

In many developed countries people with dyslexia and other SDLD have established co-operative associations attempting to enforce their interests in the legislative and institutional areas. At present, we can experience the following trends and proposed options:

- ❑ set up working groups for tutor classes
- ❑ personal assistance
- ❑ adaptation of form of final papers and theses (abroad it is possible to replace the written form with spoken presentation or a different product of own activity)¹⁰
- ❑ creation of “reading” software programmes and devices scanning text and transferring it into audio form¹¹
- ❑ writing electronic publications.

¹⁰ The question is whether such information should be stated in an amendment to the diploma.

¹¹ There are various programmes, for some it is possible to change type of voice (female, male, child, etc.).

