

# TEACHERS AND STUDENTS WITH SPECIAL NEEDS AT THE UNIVERSITY

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## Abstract

The paper deals with the issue of students with special needs at the university. The goal of universities (and university teachers as well) should be to provide, create an universally accessible academic milieu and appropriate policies (of the study) for prospective students with specific needs without reducing the requirements for their study performance. A survey was carried out among university teachers at the Technical University in Košice. It aimed to examine their opinions and knowledge concerning this issue. This research was conducted at the beginning of the winter semester in 2018. The questions in questionnaire used in this research were developed by the researchers. The aim of this study was to confirm the importance of addressing this issue, when preparing university teachers.

Key words: engineering pedagogy, further university teachers' education, students with special needs

## 1 Introduction

Improving the quality of teacher education can be one of the means to make the teaching profession an attractive career choice. Official Journal of the Europe Union notes that it is very important to endeavour to ensure that teachers have university qualification based on suitable balance between theoretical study and teaching experience and specialized knowledge of their subjects, as well as the required teaching skills. Our society needs well-prepared teachers, including university teachers. In our opinion every university teacher (not only teaching programs graduates) should be prepared for teaching.

The university teachers' quality has a significant impact on higher education's quality. It is related to university teachers' competences (professional, psychological and pedagogical/didactical). Professional competencies are acquired in university study, through the scientific and research activities, by professional growth. They obtain psychological and pedagogical/didactical competencies through their practice as the result of their experience, thus unsystematically and randomly. University teachers at the Technical University in Kosice (TUKE) can undertake a course "Engineering Pedagogy" (EP) at Department of Engineering Pedagogy (DEP), where they can supplement/add their qualification by acquiring their pedagogical qualification to teach at the university.

IGIP, of which The DEP at TUKE is a member, has defined several goals. One of which is focused on "the necessity of building on the curriculum to be tailored to the students' needs". There are more and more students with specific/special needs (SN) each year at universities. In agreement with authors Belková (2015) and Rovňanová (2013) we state, that especially university teachers should be provided with further education for a purpose to be prepared for a work with students with SN.

Pedagogical theory and practice have been always focused on the students with SN with aim to ensure their proper integration in the primary and secondary schools. However, the issue of the creating accessible and proper academic environment with adequate policies for students with SN, have gained more attention only over past 20 years. The evidence of interest is legislative (laws and directives with definitions, characteristics, classifications and recommendations for their education) as well as centres for supporting those students, whose education has specific aspect when compared to the intact students. The higher

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education law nominated two special pedagogical supporting centres for students with disabilities in 2012, with goal to provide methodical support and coordinate roles for all Slovak universities. Those centres are namely at the national level: The Supporting centre for students with SN at the Comenius University (CU) in Bratislava and the *Access Centre (AC) at the TUKE*. They have supported students with SN at their universities and even have collaborated with secondary schools since 2000. They should meet the need of the objective evaluation of the students' needs, creating an accessible academic environment and appropriate conditions for them without reducing the requirements for their study performance ([www.tuke.sk](http://www.tuke.sk)). The main area of AC TUKE activity is carried out technical, advisory, methodical, knowledge, and training activities to support students with SN before and during higher education and providing of information and advisory services for public and university teachers in the field. Almost all the services it provides are aimed on students with SN (f. E. cooperation with management of Faculties and Universities in creation of better conditions for students with disabilities; evaluation of students abilities and needs; counselling, advisory and technical support; training of students in special technology usage; developing and printing of different information materials; study materials transformation in digital or audial form; cooperation with Ministry of education and the third sector; coordination of international projects). AC has a wide range of assistive technology hardware and software. The facility is primarily used by students who are blind, have visual impairments, physical limitations, who require the use of a variety of assistive technologies. AC Assistive Technology Specialist assists students in assessing, evaluating, applying and using a variety of assistive technology, computers and software that can offset the effects of a disability. University teachers (and help how to teach) are mention only in one of them. Building on the experience of university teachers (our colleagues), this AC service is inadequate.

Legal standards and obligations, including international instruments should be the central documents ensuring the proper conditions of the education for students with SN at the universities, with the main objective to ensure equal opportunities in access to education at tertiary level as well. Basic documents include:

1. Law Act No.57/2012 which amends from Law No. 131/2002 on Higher Education and on Changes and Supplements to Some Laws. As amended by later regulations Section 100 (hereinafter referred to as Law about universities). Pursuant to provision of Section 100 of this Law, everybody who fulfils the basic conditions for admission to study (and other university conditions) has the right to study selected program. Universities are required to create a universally accessible academic environment and appropriate education policies for the prospective students having SN without reducing the requirements for their study performance. In accordance with stipulation of Section 100 Law about higher education, the following student will be considered a student with SN: a/with sensory, physical and multiple disabilities; b/with chronic disease; c/with a health weakening; d/with mental illness; e/with autism or other pervasive developmental disorders; with learning disabilities. Universities provide these students support services, they have asked for. University can examine student's needs and determine the scope of support service based on this requirement, including medical conclusions, psychologist's statements and expert (speech therapist or special pedagogue) statements. Basically, the 5 possibilities of support services are offered. Student can: a/use specific training tools, b/have individual educational approaches, c/have individual educational policies (without reducing the requirements for their study performance), d/use individual teachers' approach, e/have forgiven tuition fees (in case recovering the standard length of study if the extension was due to a specific need).
2. Act No. 365/2004 Coll. on Equal Treatment in Some Areas and on Protection from Discrimination, and on amendments and supplements of certain acts, as amended (the Anti-discrimination Act).
3. Convention on the Rights of Persons with Disabilities OSN (article 24 Education access to education and training opportunities) including the Optional Protocol (regulating the possibility of complaints and the procedure for investigating breaches of the State's obligations of the Convention).
4. The Bolonian Declaration process underlines: the importance of students' mobility supporting, compatibility of European study programs, end-of-study support, conditions adjustments such as prevention of disability of students with SN during admission to study, during study, in tests and in job descriptions as well.

5. National Programme of Living Conditions for Persons with Disabilities for the Years 2014-2020 - Education (strategy goal – ensure people with disability to get educated, or to become lifelong learners without discrimination and under equal conditions; create accessible academic environment and the individual conditions for the students with SN, as well as to provide a network support and training to the university teachers systematically).
6. No. 458/2012 Coll. on the Minimum Rights (claim) of Students with SN.
7. Methodological guidelines for creating an accessible academic environment for students with SN which is the output of the Council of the Minister to support students' with SN study, according to the abovementioned laws. The Directive was created with the purpose to determine: a/students with SN characteristics according to the type of disability and/or health disadvantages, b/coordinators' recommendations, c/recommendations for institutional documents' preparation. As consequence of the mentioned guidelines, there are the access centres and faculty coordinators at the universities. To ensure a systematic approach to the subject of study and to create a platform for cooperation between the Ministry, universities and non-profit organizations, the Ministry of Education, Science, Research and Sport of the Slovak Republic established the Council of Ministry as a special advisory body in the university section, consisting of 11 members, whose meeting are convened by its chairman needs, at least twice a year.

The Ministry of Education, Science, Research and Sport of the Slovak Republic has initiated a lot of projects for the purpose of systematic improvement of terms and conditions of study for students' with SN. One of those projects was implemented in 2011. Its aim was to map the current conditions and tools used to create equal opportunities for access to higher education abroad, as well as to draft recommendations for universities in Slovakia on this topic. The project was coordinated by the Comenius University in Bratislava (the CU in BA). The evidence of effort to map and analyse the availability of the study at the universities in Slovakia, with specific emphasis on different cohorts (within disabled students) is also a Lifelong Learning Program - national study with the support of the European Commission (IBAR, 2011). The project related activities have resulted in a report on strategic, legislative and financial support for study and education provided to the students with SN at the universities in selected European countries. Education and training institution from 9 European countries collaborated on the project "Standards of conditionality Study for people with disabilities at Higher Education Institutions in Slovakia for years 2011-2013" under the guidance of CU in BA. Interesting findings about the most common adaptation problems of 15 students with SN at the beginning of the study in the academic year 2012/2013 have been demonstrated in the survey prepared by the Matej Bel University in Banská Bystrica (Belková, 2015).

## 2 Aim of the study

To fulfil the mentioned IGIP aim, we decided to initiate a survey among TUKE university teachers at the beginning of the winter semester in 2018. The purpose of the survey was to confirm the importance of addressing this issue, when preparing university teachers. In our opinion, their competencies are still inadequate. This situation requires reflection on content changes within the framework of their preparation for teaching at the universities. Attention should be provided to the specific preparation of the university teachers, as well as graduates of non-teaching study programs. They may experience this type of students too.

## 3 Methods

### 3.1 Participants

53 university teachers from Technical university in Košice have participated (females 64,2%; males 35,8%) aged from 24 to 65 years (females ranged from 25 to 63 years; males ranged from 24 to 65 years). Participant's average age was 37,5 years (females 36,5 years; males 39,4 years). Participants work at 7 (from all number of 10) departments and faculties.

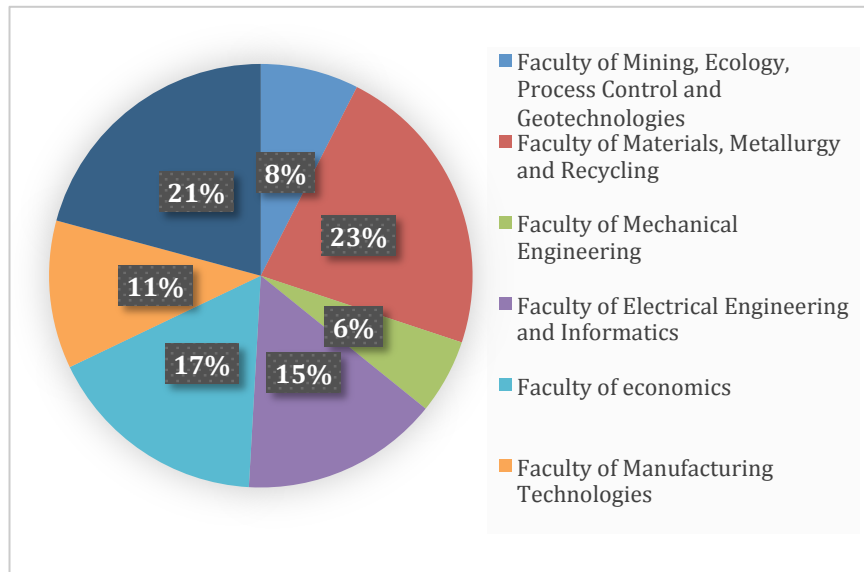


Fig. 1 Distribution of participants according to department and faculties

### 3.2 Questionnaire

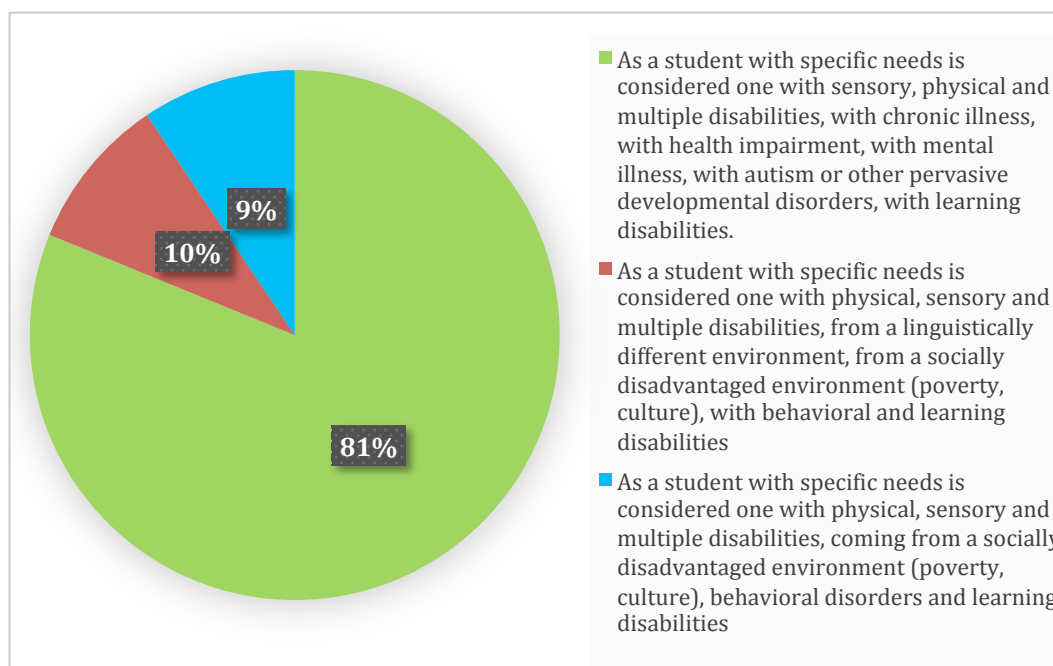
Self-constructed questionnaire have been used. According to the aim of the survey, the questionnaire was divided into 6 main parts – demographic items (age, gender, faculty); choosing the right definition of the student with specific needs (3 options); list of 37 student’s diagnosis that should have been rated according to the relevance of studying at the university (for example *asthma, blindness, dyslexia, depression, autism, etc.*); list of 37 student’s diagnosis that should have been rated according to the right of claiming the status of the student with specific needs (for example *asthma, blindness, dyslexia, depression, autism, etc.*); experiences with students with specific needs („Have you ever have the student with specific needs?“); knowledge about the rights of the students with specific needs („I think that student’s with specific needs have right to ask for individual pedagogical approach.“) and education in the area of special pedagogy („Have you ever been interested in any form of the additional education in the area of special pedagogy?“). The answer options were presented in close-ended format – nominal polytomous, dichotomous and continuous scale.

### 3.3 Procedure

Questionnaires were distributed in the electronic form via application Google Docs Form. Convenience and purposive sampling method was used. Data were processed in SPSS 21.0 and summarized by using frequency distributions.

## 4 Results

In the first question we asked participants to choose the right definition (from a total number of 3 options) of the student with specific needs. 81,1% have chosen the right one („As a student with specific needs is considered one with sensory, physical and multiple disabilities, with chronic illness, with health impairment, with mental illness, with autism or other pervasive developmental disorders, with learning disabilities.“). 18,8% have chosen the option included linguistically different environment, socially disadvantaged environment (poverty, culture) and behavioral disorders that all are not considered as a specific need of university student.



**Fig. 2** Choosing the right definition of student with special needs

In the second question, we were interested in participant's perception of the relevance of the studying at the university of students who suffer from listed disorders/disabilities. Below we present the results - the frequencies of participant's relevance rejection.

	disorder/disability	%		disorder/disability	%
1.	achromatopsia	1,9	20.	dysgraphia	20,8
2.	diabetes mellitus	1,9	21.	slerosis multiplex	22,6
3.	post-surgery consequences	1,9	22.	speech and language disroders	26,4
4.	allergy	1,9	23.	deafness	28,3
5.	asthma	1,9	24.	ADHD	28,3
6.	implant	1,9	25.	depression	30,2
7.	partial sight	3,8	26.	dyslexia	32,1
8.	partial paralysis	3,8	27.	dysortographia	32,1
9.	partial hearing loss	7,5	28.	dyscalculia	37,7
10.	celiac disease	7,5	29.	DMO	41,5
11.	histamine intoelrance	9,4	30.	autism	41,5
12.	hyperactivity	9,4	31.	social phobia	41,5
13.	tics	9,4	32.	total paralysis	43,4
14.	blindness	13,2	33.	OCD	45,3
15.	chronic pain	15,1	34.	Down's syndrome	60,4
16.	psoriasis	15,1	35.	self-harming behavior	62,3
17.	epilepsy	17,0	36.	schizophrenia	67,9
18.	muscular dystrophy	18,9	37.	mental retardation	75,5
19.	atopic eczema	18,9			

**Table 1** Participant's perception of the relevance of the studying at the university for students who suffer from listed illnesses - requeencies of participant's rejection

The table shows that participants considered as the most suitable disorders for studying at the university achromatopsia, diabetes mellitus, post-surgery consequences, allergy, asthma, implant partial sight, paralysis and hear loss and celiac disease. Opposite, as the least suitable were rated dysortographia,

dyscalculia, DMO, autism, social phobia, total paralysis, OCD, Down's syndrome, self-harming behavior, schizophrenia and mental retardation.

The third question have asked participants to choose students that are allowed to ask for status of the student with specific needs according to their diagnosis. Below we present the results - the frequencies of participant's rejection.

	disorder/disability	%		disorder/disability	%
1.	blindness	1,9	20.	OCD	39,6
2.	deafness	3,8	21.	post-surgery consequences	39,6
3.	autism	5,7	22.	achromatopsia	43,4
4.	DMO	11,3	23.	self-harming behavior	45,3
5.	total paralysis	11,3	24.	hyperactivity	47,2
6.	partial paralysis	13,2	25.	chronic pain	49,1
7.	sclerosis multiplex	13,2	26.	mental retardation	49,1
8.	Down's syndrome	15,1	27.	depression	52,8
9.	muscular dystrophy	15,1	28.	social phobia	52,8
10.	speech and language disorders	17,0	29.	diabetes mellitus	62,3
11.	dysgraphia	18,9	30.	tics	62,3
12.	dyscalculia	18,9	31.	implant	62,3
13.	dyslexia	22,6	32.	asthma	66
14.	dysortographia	22,6	33.	histamine intolerance	71,7
15.	ADHD	22,6	34.	celiac disease	73,6
16.	partial sight	24,5	35.	allergy	73,6
17.	partial hearing loss	32,1	36.	atopic eczema	75,5
18.	epilepsy	35,8	37.	psoriasis	77,4
19.	schizophrenia	39,6			

**Table 2** Participant's perception of allowance to ask for status of the student with specific needs according to diagnosis - frequencies of participant's rejection

The table shows that participants considered as the most allowed for asking for status of the student with specific needs are that ones who suffer from blindness, deafness, autism, DMO, total paralysis, partial paralysis, sclerosis multiplex, Down's syndrome, muscular dystrophy and speech and language disorders. Opposite, as the least allowed were rated students suffering from depression, social phobia, diabetes mellitus, tics, implant, asthma, histamine intolerance, celiac disease, allergy, atopic eczema and psoriasis.

In the next set of questions we were interested in teacher's experiences with students with specific needs. At first we have asked about their estimation of the number of students with specific needs at Technical university in Košice. In average they answered 298 students (females 428 students; males 65 students). The right answer is around 65.

85% of participants consider as worthy to allow people with specific needs to study at the universities. 54,7% have the experience with the student with specific needs, but 52,8% don't know who to ask for help when the student comes with this kind of requirement. 71,7% don't think they know how to work with student with specific needs. 54,7% don't know if there is any department at Technical university in Košice that provides help and support for students with specific needs (there is [Accessibility Center](#) and [Center for Consultancy and Psychological Services](#) at Technical university in Košice) and 62,3% don't have any information about at least one person who takes care of the student's with specific needs. Opposite, 96,2% of the participants consider as important centres for student's with specific needs that help and support to work at the universities. Those numbers support our conviction that that it's necessary to educate university teachers in the area of students with special needs.

The next set of questions was focused on the education in the area of special pedagogy or similar fields in any form (additional education, courses, etc.). 88,7% have never been interested in any form of additional education in this area, but 77,3% rated that it is needed to provide additional education in the area of the work with students with specific needs. 66% claimed their interest to attend the additional education in the area of the work with students with specific needs if there would be the opportunity to join. 77,4% think that all new pedagogical employees should attend the lesson about the work with students with specific needs.

The last section of the items was focused on participant's knowledge about the rights of students with specific needs. 62,3% were right that students with specific needs don't have the right for decreased requirements about their academic performance. 84,8% answered right that students with specific needs have the right to ask for individual pedagogical approach. 83% were right that students with specific needs have right to ask the university to provide specific educational resources and tools. 73,6% were right that students with specific needs don't have right to be accepted in admission procedure out of the order. 79,3% were right that students with specific needs have right to ask for specific form of admission procedure according to the kind of their specific need. 86,8% were right that students with specific needs have right to ask for forgiving tuition fees (in case recovering the standard length of study if the extension was due to a specific need). 60,4% were not right that applicants with specific needs have right for having special conditions during admission procedure.

## 5 Conclusion

The purpose of the survey was to confirm the importance of addressing the issue of work with students with specific needs, when preparing university teachers, because in our opinion, their competencies are still inadequate. According to our survey we conclude that there is a big need to provide additional education in the area of students' specific needs for university teachers. Unfortunately our survey shows that university teachers' knowledge about severity of some diagnosis is very poor. Even if most of participants were not internally motivated to search for some additional options of improving their knowledge, the high percentage would attend the course or any form of additional education if there would be the opportunity. This situation requires reflection on content changes within the framework of their preparation for teaching at the universities. Attention should be provided to the specific preparation of the university teachers, as well as graduates of non-teaching study programs. They may experience this type of students too.

According to European commission (2007, p.3) it is empirically proven that „*the quality of teachers significantly and positively correlates with students' results and it's the most important within-school aspect influencing students' performance*“. It's influence is much bigger than the influence of school organization, school leadership or financial conditions. Thus the quality of teachers' education is the key factor for education quality and it supports the academic performance.

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