



Embracing diversity in ASIA through the adoption of Inclusive Open Practices

618615-EPP-1-2020-1-UKEPPKA2-CBHEJP

WP1 – Presentation

D1.3 – CONSOLIDATED SURVEY FINDINGS

Version – Final v1

Lead – University of Latvia (P8) and Plovdiv University (P6)

Authors:

Teacher and administrative staff survey:

prof. Linda Daniela, Astra Rudolfa, Arta Rudolfa - University of Latvia (P8)

Student survey:

prof. Dora Levterova-Gadjalova, DSc; Tsvetelina Ivanova, PhD; Vanya Sivakova, PhD; prof. Galin Tsokov, PhD; asoc.prof. Dimitar Tokmakov, PhD; assoc.prof. Slavi Luybomirov, PhD; assoc. prof. Hilda Terlemezyan, PhD - Plovdiv University (P6)

Contributors: DiversAsia all project partnersprof

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Table of Contents

Table of Contents	2
1 Introduction	3
2 Main Body	4
3 Conclusion	57

1 Introduction

Inclusive education has been defined since the Salamanca Declaration in 1994. While the need to ensure inclusive education also at higher education level was not specifically identified at the time, it was an important step towards recognising that everyone has the same right to education and that countries must do their utmost to ensure access and support in the educational process, regardless of the barriers they face. Inclusive education can be defined as an educational approach proposing schools in which all the students can participate and all are treated like valuable school members (Morina, 2017). Also, the Dakar Framework for Action 2000 has defined (World Education Forum 2000), all children and youth must have the opportunity to learn and the role of educators is emphasised to ensure an appropriate educational process for everyone. However, this document too does not include a statement that inclusive education should also be ensured at higher education level. The need for inclusivity in higher education has already been highlighted by Jaegler (2022), who defines that inclusivity must be understood as a concept for all stakeholders of a higher education institution: students, employees, alumni, partners. In higher education, the principles of inclusivity are not so self-evident and are pointed out by several researchers (Nimante, Baranova, Stramkale, 2021; Stentiford & Koutsouris, 2020). One of the reasons researchers point to is that those working in higher education do not have an understanding of how to provide inclusive education (Nimante, Baranova, & Stramkale, 2021; Bunbury, 2020) and how to assess student achievement in light of inclusive education principles (Griskevica et al. 2022).

Inclusive education applies to every teacher, administrator, and student in HEIs. Through the application of innovative learning models, through the introduction of the competence approach, and global learning, through digitalization, it is clear that education can be an education that values all differences, and education for different learners that ensures equal rights, accessibility, and inclusion. Because each learner is unique and the education of the future will motivate learning, will bring personal development to all students according to their strengths and needs, and each teacher will have more and more opportunities to develop their innovative and creative potential. Then inclusive higher education will be such a natural model of education that it will not even be noted as a feature, because humanity lives as an inclusive society.

Several studies on inclusive higher education have been carried out and the results show in most cases that there are still many unresolved issues where resources need to be invested to make higher education accessible to people with different special needs (Ivanova, Tsv. et al., 2021; Shopland et al., 2022). Different regulations and various political guidelines indicate that it would be recommended and most Europe universities are bound to guarantee people with disabilities or special educational needs the appropriate environment to facilitate access and promotion, as well as full participation in academic life under equal conditions (Faura-Martínez, Javier Cifuentes-Faura, 2022), however, it must be admitted that it is not always so. For some years, inclusive principles and practices have been making inroads into university agendas, policies, and teaching and learning practices. In the context of higher education, there is still a long way to go before we can claim that there is ensured inclusion, and many challenges must be addressed to align educational practices with the principles of inclusive education (Morina, 2017).

This report is about the results of the project, which focuses on inclusive higher education in India and Bangladesh. There, too, inclusive education is more thought about at the general education level than it is at the higher education level (Ambia & Rahman, 2021; Taneja-Johansson, Singal, & Samson, 2021; Singal, 2019; Fayaz, 2019). In higher

education, change happens a little more slowly. Accessible India Campaign (Sugamya Bharat Abhiyan) was launched by the government in 2015 to “facilitate barrier-free urban development for persons with disabilities in three broad domains i.e., Built Environment, Information Technology, and Transportation.” This process has been concluded with the Supreme Court's decision that higher education institutions in India must provide access to higher education to persons with disabilities (India Today, 25th of July, 2022). Bangladesh has been gradually addressing inclusive education, both in terms of including students with disabilities in education and providing material support, and in terms of thinking about gender equality (Grimes et al. 2021) so it was important for the project partners to find out what the current situation is with inclusive education provision in higher education today. Despite the fact that steps have been taken to ensure inclusive education in the above-mentioned countries, research findings show that problems persist and that despite the support defined in legislation for students with special needs, this support is received by those who are more familiar with the various laws and regulations, can read documents and know where to turn for help (Dongre, Sarin & Singhal, 2022; Das and Shah, 2014), meaning that it cannot be said that all students are provided with an equal amount of inclusive education according to their needs.

2 MAIN BODY

2.1. Methodology

2.1. 1. Teacher and administrative staff survey:

A questionnaire was developed for the needs of the project and it was created on Google Sheets, enabling the questionnaire to be distributed digitally. The questionnaire had five sections to collect data on - demographic information, inclusive policies and practices in educational institutions, questions on experiences and knowledge about inclusive education and a section related to the support needed to provide inclusive education and distance learning in universities. The questionnaire consisted of 36 questions and 77 sub- questions. The initial version of the questionnaire was developed in English and then the project partners from India and Bangladesh could choose whether to translate the questionnaire. The Indian partners chose to use the English version of the questionnaire as one of the official languages in India is English. The Bangladeshi partners translated the questionnaire into Bangla. Thus, the results of the study were extracted in two streams, but then exported in Excel format and merged to import into the SPSS software. Descriptive methods and diagnostic methods were used in data analysis, also in some cases the results obtained are compared between the two countries.

The questionnaires were distributed to academic and administrative staff by the project partners in the countries where the study was carried out. The survey sample was conveniently sampled by sending questionnaires to a wide range of people representing the group whose views the researchers were seeking and asking them to complete the questionnaire. Completion was voluntary and the data were analyzed only in aggregate form. This study focuses on two Asian countries which are quite different on various parameters, so the comparison of data was done for statistical purposes only, without in-depth analysis at this stage.

2.1.2. Student survey:

The questionnaire was developed by the DIVERSASIA project team. The study was done by partners from Bangladesh and from India with students studying in higher education institutions.

A questionnaire was developed for the needs of the project and it was created on Google Forms, enabling the questionnaire to be distributed digitally. The questionnaire had five sections to collect data on - demographic information, inclusive policies and practices in educational institutions, questions on experiences and knowledge about inclusive education and a section related to the support needed to provide inclusive education and distance learning in universities. The questionnaire consisted of 37 questions. The initial version of the questionnaire was developed in English and then the project partners from India and Bangladesh could choose whether to translate the questionnaire. The Indian partners chose to use the English version of the questionnaire as one of the official languages in India is English. The Bangladeshi partners translated the questionnaire into Bangla. Thus, the results of the study were extracted in two streams, but then exported in Excel format and merged to import into the SPSS software. Descriptive methods and



diagnostic methods were used in data analysis, also in some cases the results obtained are compared between the two countries.

The questionnaires were distributed to academic students by the project partners in the countries where the study was carried out. The survey sample was conveniently sampled by sending questionnaires to a wide range of people representing the group whose views the researchers were seeking and asking them to complete the questionnaire. Completion was voluntary and the data were analyzed only in aggregate form. This study focuses on two Asian countries which are quite different on various parameters, so the comparison of data was done for statistical purposes only, without in-depth analysis at this stage.

This survey aims to increase the level of an inclusive culture and inclusive practices in higher education. The results will be used for research purposes related to the improvement of inclusive practices for people with different needs both when entering university and within university education.

The aim of this study is to identify:

- inclusive policies and practices that currently exist in the educational institution through the eyes of the students.
- students' experience and knowledge of the processes and practices of inclusive education.
- support needed to provide inclusive education and personalized learning in a Higher Educational Institution.
- respondents' experiences and knowledge about inclusive higher education.
- online inclusive learning and the support students require in a Higher Educational Institution to engage with it.

This inclusive capacity-building project will provide Indian and Bangladeshi universities with a compendium of inclusive and personalized education guidelines together with a validation toolkit that will evaluate and provide guidelines for further improvement of the existing OERs & MOOCs. This toolkit will include appropriate strategies for validation and recommendations for adapting and making all digitized training materials inclusive in these countries.

Education 4.0 (<https://www.jisc.ac.uk/education-4-0>) will allow customization of training according to the needs and interests of the students. The personalization of education brings support to all students to reach their full potential. Both Artificial intelligence (AI) and machine learning (ML) will be implemented to improve the personalized training experience.

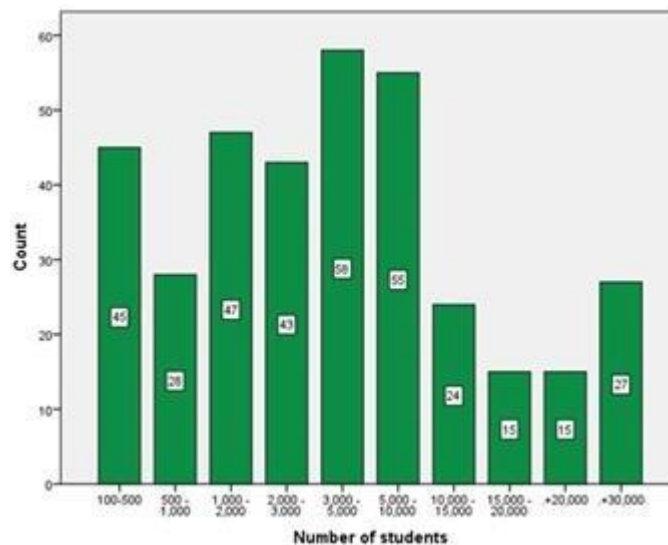
2.2. Results

2.2.1. Teacher and administrative staff survey:

1. DEMOGRAPHIC INFORMATION

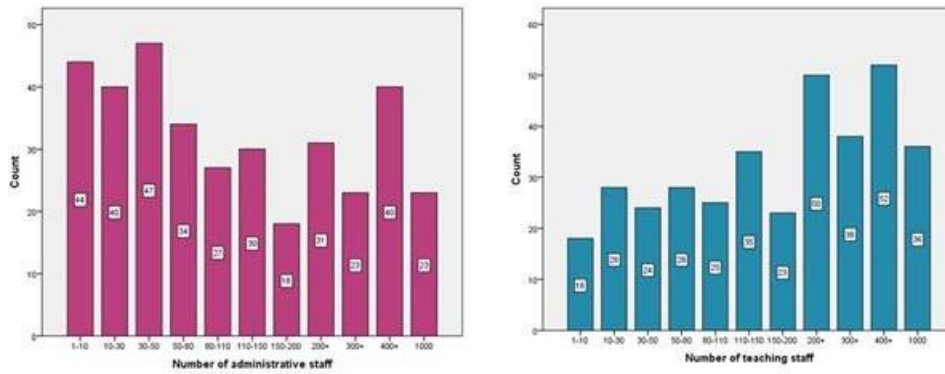
A total of 356 respondents from India (192) and Bangladesh (164) participated in the study. There were 224 men and 132 women among the study participants. Most of the study participants were 25-34 years old (150 participants) and 34-44 years old (140 participants). The majority of respondents are university teachers or administrative staff of HE. A significant part of the respondents did not indicate the level of the educational institution they represented, while the rest of the respondents represented special educational institutions, secondary schools or higher education institutions with profession-oriented study programs. A majority of respondents in both India and Bangladesh live in capital cities (146), major cities (74) or suburbs of large cities (59). Much fewer respondents come from smaller towns, villages and the outskirts of the country (72). This is due to the fact that in this step of the research the opinions of higher education lecturers and administrators were analyzed and higher education institutions are concentrated in larger urban areas.

The respondents come from different educational institutions and the number of students in these institutions varies. The number of students in educational institutions which are represented in opinions of respondents can be seen in graph No.1.



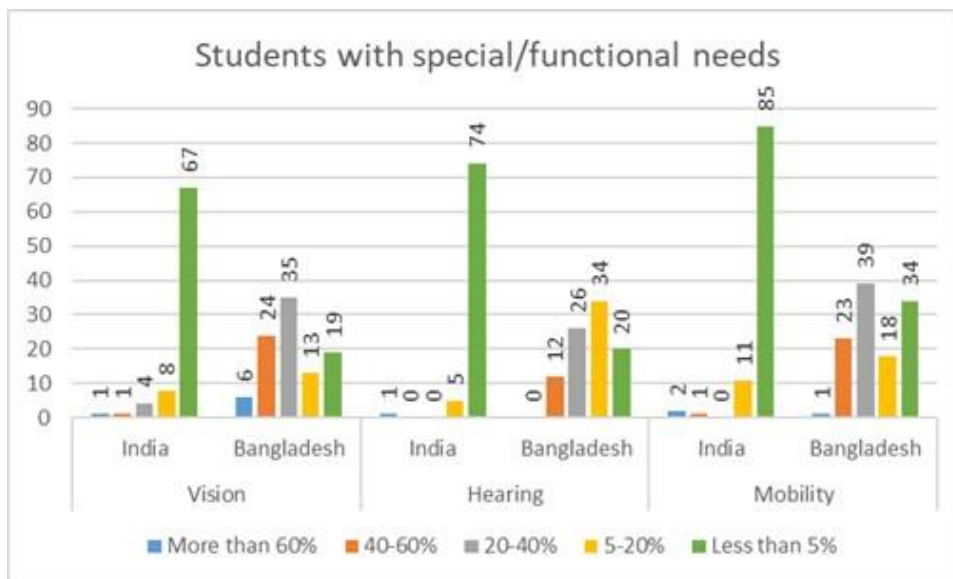
Graph No. 1 Number of students

Data was collected from both teaching staff and administrative staff and number of participants from particular groups can be seen in graphs no. 2.1. and 2.2.



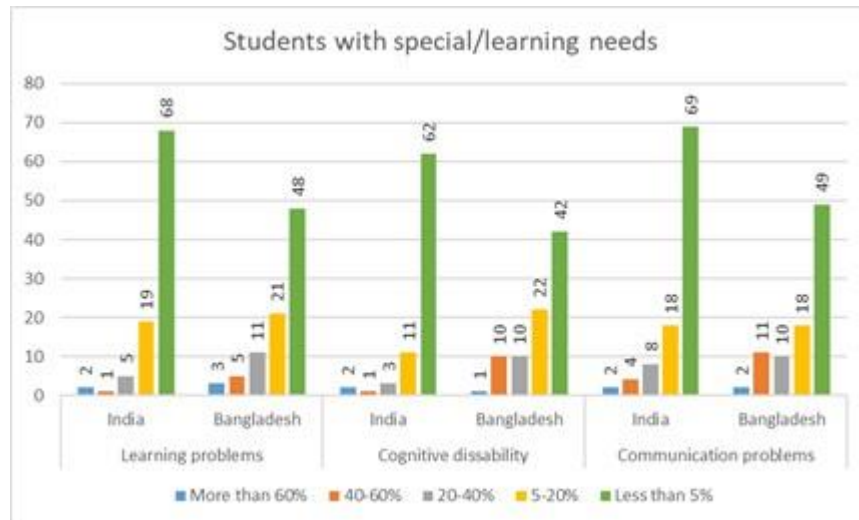
Graphs No. 2.1. and 2.2. Number of staff members

During the study, data was collected in order to find out what the percentage of students with special/functional needs are in HE and data from India and Bangladesh was analyzed to understand the situation in Higher Education (HE) institutions in both countries (see graph 3). As it can be seen from data, the situation in India and Bangladesh differs and more students with special needs study in Bangladesh and the biggest percentage of students with special needs are those who have mobility problems. Such a difference can indicate that students with special/functional needs from Bangladesh get more support during compulsory education to allow them to get education and enter HE. Situation in India can start changing positively as in July of 2022 the Supreme Court of India took a decision that HE institutions should ensure that education is accessible for disabled students.



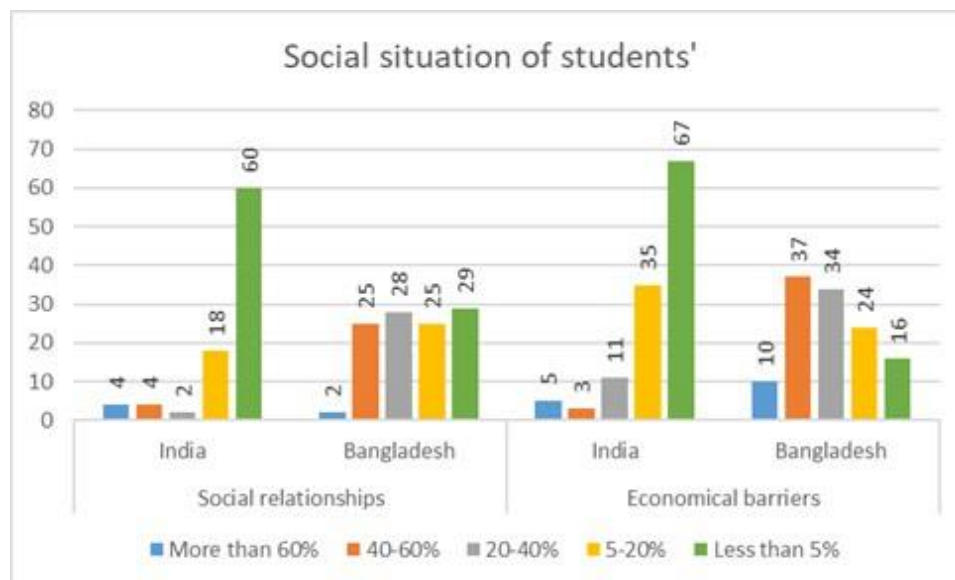
Graph No. 3 Students with special/functional needs

The following part of the questions was about different special/learning needs and also from these data it can be seen that the situation is slightly different in Bangladesh compared to India, where there are more students with special/learning needs in HE (see graph 4) and it can be assumed that there is support provided for them (Dongre Sarin & Singhal, 2022).



Graph No. 4 Students with special/learning needs

If we analyze data about students' problems with social relations and economical barriers it can be seen from data (see graph 5) that the situations in those countries are different and it could be concluded that in Bangladesh there are more students with social and economic problems. But researchers believe that this data shows that HE in Bangladesh is more open for students with diverse needs and teachers from HE recognizes them in the study process. These data are in line with previous ones (see graphs 3 and 4) where it could be seen that in, HE of Bangladesh there are more students with special needs included. But as it is seen in research of other authors there is not such a positive attitude towards students with high support needs (Ahsan and Sharma, 2018).



Graph No. 5 Social situation of students'

The participants were then asked how they rate their knowledge of Inclusion, Equality and Access for students with disabilities and their experience of working with students with special needs, both on a scale of 1 - 5, where 1 meant no knowledge and no experience and 5 meant a very high level of knowledge and experience. This aspect is very important

as lecturers' attitudes and knowledge about inclusive education is a powerful factor in ensuring that students with special needs can learn successfully and this aspect already has been highlighted by other researchers (Bodhi, Singh, Joshi and Sangroya, 2022). The results (see table 1) show that the participants rated their knowledge higher than their experience of working with students with special needs. Comparing research participants by country, respondents from India think that their knowledge is higher than their Bangladeshi counterparts. This study uses a self-assessment method, so it is not possible for the researchers to say at this stage whether respondents' self-assessment is the same as their actual knowledge. At this point, we can only speculate that given that HE in India includes very few students with special needs, respondents are optimistic and think that their knowledge is sufficient. On the other hand, respondents from Bangladesh, where HE includes relatively more students with various special needs, are aware that their knowledge is insufficient.

Whether our speculative conclusion is correct or whether the data should be interpreted differently, it is clear to the researchers that knowledge about inclusive education needs to be improved so that students can receive the support they need in their studies.

Country		How do you rate your knowledge in the field of Inclusion, Equality and Access for students with disabilities in HEIs?	What is your experience working with students with disabilities in HEIs?
India	Mean	3,16	2,59
	Variance	1,537	1,496
Bangladesh	Mean	2,44	2,26
	Variance	1,319	1,024
Total	Mean	2,85	2,45
	Variance	1,567	1,317

Table 1, Case Summaries

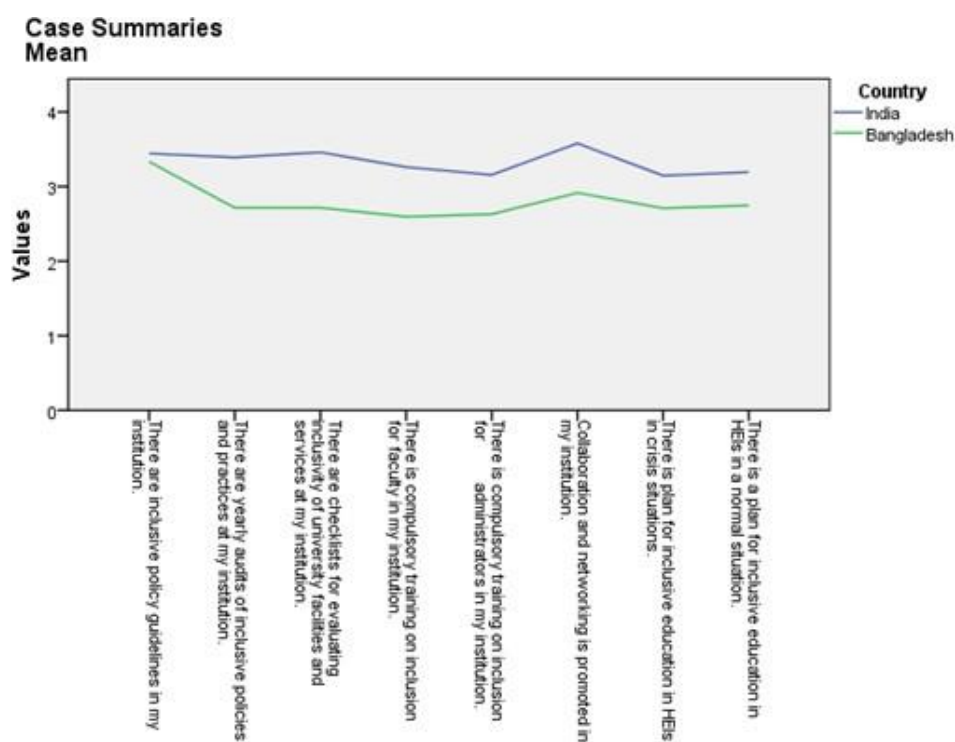
When asked if research participants have a degree or they have attended special course in special education the answers show (see table 2), 26 people in India and 17 in Bangladesh indicated that they had such education, and a very small number indicated that they had received this knowledge in courses or were currently studying. These data confirm the need for the activities planned in the project, which foresees the development of training materials on inclusive education and the organization of workshops for higher education on inclusive education.

		have a degree / diploma in special education				Total
		No	I am studying now	At the level of additional courses	Yes	
Country	India	158	1	7	26	192
	Bangladesh	135	8	4	17	164
Total		293	9	11	43	356

Table 2, Degree / diploma in special education Crosstabulation

2. INCLUSIVE POLICIES AND PRACTICES

Respondents were asked to indicate to what extent the following statements apply to their institution, by checking evaluating them in a scale from 1 to 4, where 4 - Yes (fully addressed), 3 - Yes (partially addressed), 2 - Not addressed or 1 - Unaware. The data analysis (see graph 6) shows that there is a slight difference between the two countries in all statements. These are interesting data taking in mind that the percentage of students with special needs is higher in Bangladesh HE. Almost the same results are for the statement 'There are inclusive policy guidelines in my institution but all other statements are evaluated by lower level by respondents of Bangladesh. The highest results are for the statement 'Collaboration and networking is promoted in my institution' in both countries with higher results from India.



Graph No. 6, Inclusive policy

In this research we didn't ask to provide the information on all these documents mentioned. That is why we should continue our research to find out why there are such differences in answers about different documents and in the percentage of students with special needs enrolled in HE in both countries. As it can be seen from graphs 3 and 4 in Bangladesh there are more students with special needs enrolled in HE but in India there are higher results when respondents evaluate the statements about documents. We can make some speculative conclusions at this moment but these should be investigated in further steps of project development.

Those speculative conclusions could be that here are higher results in evaluation of documents ensuring inclusive policies in India:

1. because there is a decision of the supreme court of India that all the HE institutions should ensure that HE is accessible for disabled students and that is why institutions have developed such policies but not many students are enrolled yet because of long time traditions that students with special needs can't enter HE.
2. because there is a tradition to prepare documentation which states that there are services provided but in reality, it is a different situation.
3. because there is different understanding on what is meant by the statements on inclusive policy.

These findings indicate that researchers should go deeper in data analyses to find the answers which are raised here.

Summarizing and analyzing the answers to the open-ended question "Is there anything you would like to add regarding inclusive policies and practices in your institution or higher education in general?". Some respondents in their answers talk about needs, such as a necessary separate special education curriculum, a more individual approach to the learning process and the need for assistive technology. However, some respondents mention that several effective practices are already being implemented in their educational institutions, such as club activities based on student interest, providing additional security facilities for girl students, encouragement in sports activities for all the students and also reduction in the fees. We can conclude that not all respondents answer unequivocally negatively, and yet, in some educational institutions, pedagogues can also name positive features of already implemented inclusive education.

In the next question participants were asked about the biggest challenges in their experience in the learning process with students with disabilities. In the answers to the open-ended question about the biggest challenges in the experience of the teaching staff, such answers stand out very clearly "to make them understand the content; to ensure joy of learning; to teach the engineering concepts" and in some sense it may indicate the cause of the challenge, perhaps the teachers do not know the pedagogical methods to work with the particular student, perhaps there is no special curriculum. But when evaluating all the answers submitted in general, it could be said that all kinds of challenges are mentioned, both regarding the environment and technologies, as well as the general aspects of the implementation of special and inclusive education, cognitive, mental and emotional aspects.

In the next step participants were asked what were their best achievements in the teaching process with students who have special functional needs. Several educators

mentioned that their best achievement is the achievements of their students, which also required them to invest more time in additional study time, individual approach, additional explanation or understanding, and of course, the achievement is passed tests or knowledge gained.

Summarizing and analyzing the answers to the open-ended question "Do you have any further comments on the biggest challenges for HEI in the area of disability?" It can be concluded that the respondents understand the nature of special needs and varying levels of support which may be needed, from the perspective of the whole country level to basic environmental improvements. The problems mentioned by the respondents include issues of pedagogues and teaching methodology, as well as financial issues of technological provision.

For example:

- There should be laws that promote equal opportunities on national levels which will open the door for creating jobs for people with various disabilities.
- There should be improvement in the environment accessibility as many places and buildings are not accessible for those with functional needs.
- There should be improved technical development and latest tools, equipment provided to support students with special needs.
- The administration of HE should take steps for ensuring inclusive education in educational institution.

3. SUPPORT NEEDED TO PROVIDE INCLUSIVE EDUCATION AND REMOTE LEARNING IN HEI

There were also question about support tools and other measures which can be used in learning process to support students with special needs and a short list (see below) was provided as an example of such and participants were asked to indicate if they know how to use them and there was also possibility to add other options used in teaching and learning process. A large part (100N = 1/3 of the respondents) indicate that they do not know, for example, such tools and support measures and no one gave another example on different options not mentioned in the list, which means that more information about such options may be needed.

- Guide dogs for mobility and orientation
- Google Chromebooks audio-visual assistance
- Microsoft's Surface Pro - assistive technology, including text-to-speech software, word prediction and settings that allow screens to be adjusted for students with epilepsy and colour blindness
- Word prediction
- Alternative and augmentative communication - AAC
- Eye recognition software

2.2.2. Student survey:

1 DEMOGRAPHIC INFORMATION

Total participants are 424. **Fig. 1** presents the distribution of participants by country. The results show that the most participants (64,2%) are from India and other 35,8% - from Bangladesh.

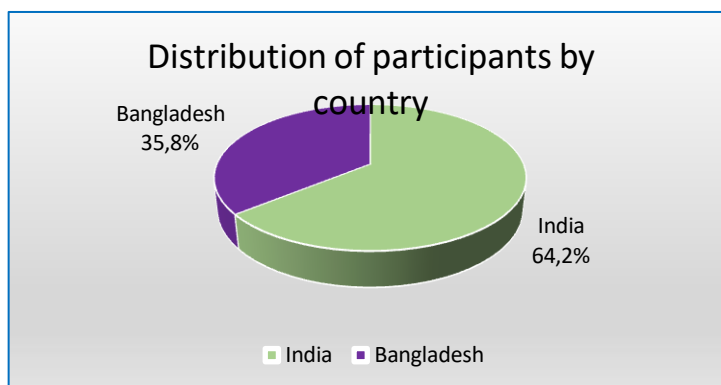


Figure 1. Diagram for distribution of participants by country

Fig. 2 presents the distribution of participants by special educational needs (SEN). The results show that the most participants 40,1% have special educational needs. Almost the same 36,6% are those who are without SEN. Some of them 23,3% don't know if they have SEN or not.

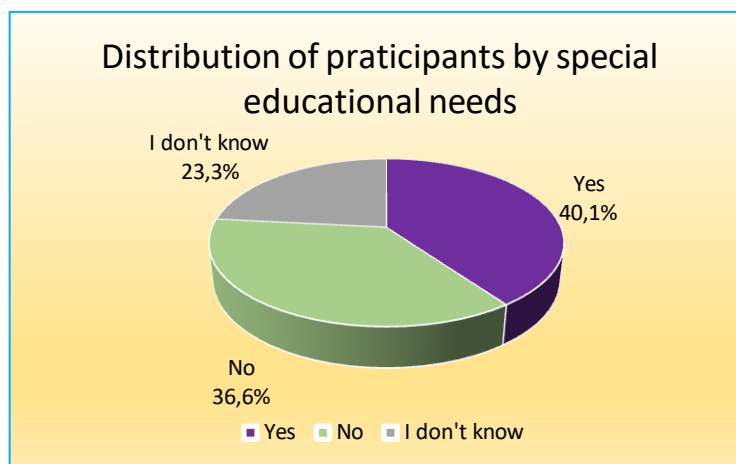


Figure 2. Diagram for distribution of participants by special educational needs

The distribution of answers about details for SEN is shown at **Fig. 3**. The participants had the opportunity to give some brief details if they have special educational needs. Some participants have indicated that are blind (6,9%) and they need thing such as: Braille books for higher education in higher secondary and university, technical equipment, refreshable Braille-display, e-books which support Unicode format and can be with a help of screen reader, financial support and audio books. They propose to give disabled people

to have the opportunity to take the University Admission Test twice.

Some of them have indicated that are disabled (6,9%) and need system that can capture lecture in class. Some of them are suffering from slow hand writing and pain due to cerebral pulsy problem in their hand and need extra time at exams and other facilities in the classroom.

A part of the participants (9,2%) have pointed that the needed assistive technology to study such as: special glasses to see, voice to text converter, advanced learning materials for math education such as Taylor Frame Geometry Box Talking Calculator, smartphone with voice recorder, Advanced Screen Reader, Braille keyboard for computer, Braille Printer, Brain Press and to maintain the Brain Library of each University, hearing device (4,6%), a computer 5,7%, captioned phone, captioned machine to detect what teacher says, captioned notes.

Financial support is needed too. Some have pointed out that they want to study (4,6%). Another need any kind of skill development.

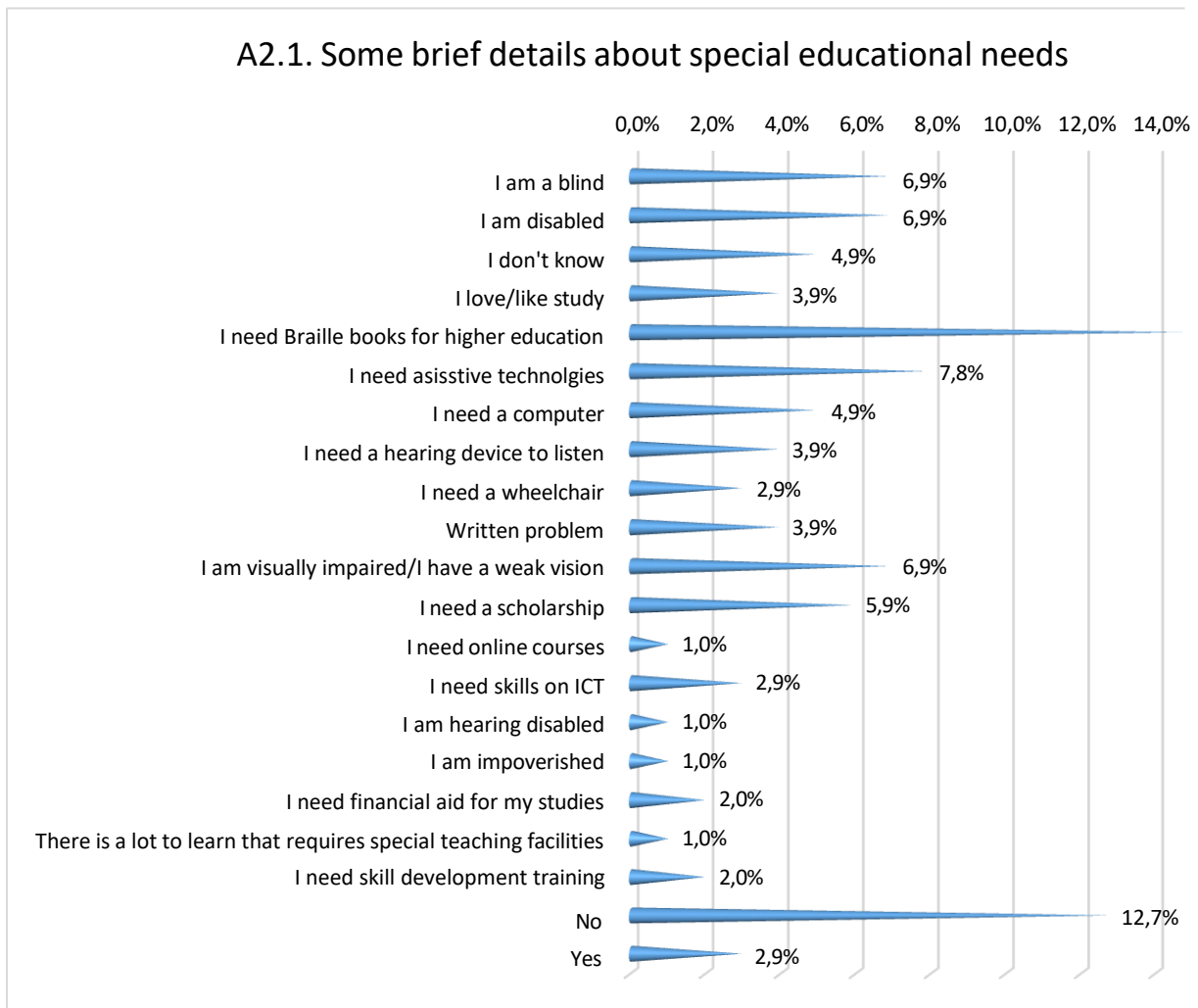


Figure 3. Diagram for details about SEN

The distribution of participants by age is given at **Fig .4**. The results show that the most of the participants (83,7%) are between 18 and 24 years old. The next large group of participants is this of 25-34 years old. There are no participants over 55 years old. Those

who are between 45 and 54 years old are 0,2%, and between 35 and 44 years old are 1,4%.

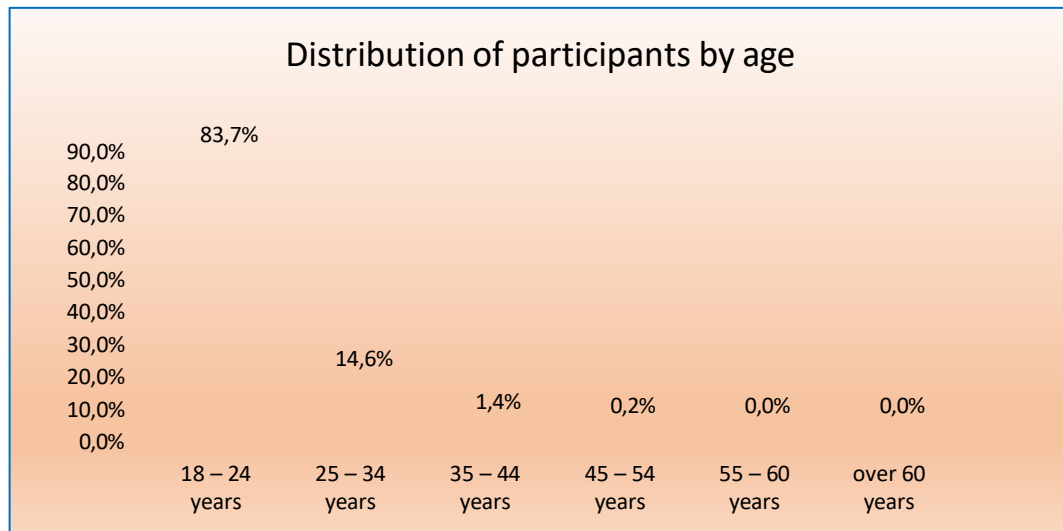


Figure 4. Diagram for distribution of participants by age

Fig. 5 presents the distribution of participants by gender. The most participants are male (71,7%), 27,6% are female. A small part of the participants 0,5% prefer not to say what is their gender and 0,2% have chosen the option *others*.

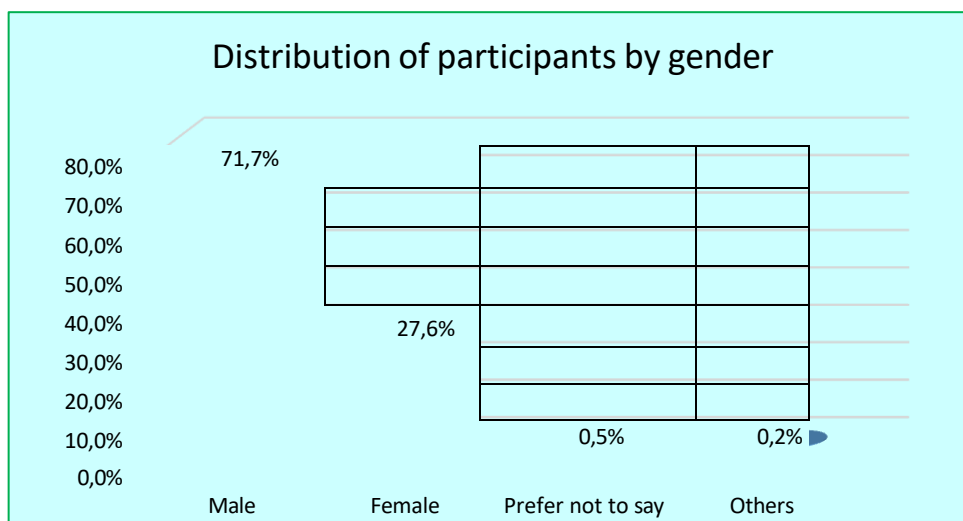


Figure 5. Diagram for distribution of participants by gender

The distribution of participants by place of residence is given at Fig .6. The results show that the most of the participants (37%) are from a village. Almost the same is percentage of those who are from a city. The next large group of participants is from a town – 19,6%. Those who are from the national capital are 9,9%. The least participants are from a suburb of the national capital territory (2,4%), the capital city of the state/territory/ division (1,4%) and other places of residence (1,2%).

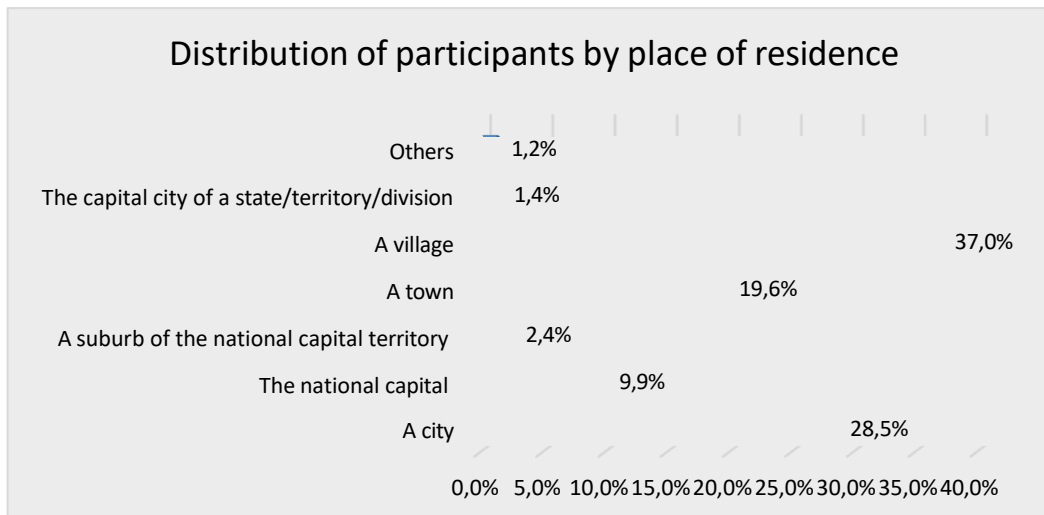


Figure 6. Diagram for distribution by place of gender

The distribution of participants by self-determination to a group is given at **Fig .7**. The participants could give as many answers as applicable and If they do not identify themselves with any of the groups can choose answer None. The percentage indicates how many time a group has been selected. The results are presented also in **Table 1**.

In **Table 2** are presented the groups that are selected by the participants in different combination. The most participants identifies themselves by group with disabilities (44%) and 29,3% have selected only group with disabilities. A lot of them selected the option None (45%). The other large group is that of impoverished group (15%) and minority group (8%). There is no participants from groups “those who have adopted children” and “migrant”.

The other groups: Different ethnic group, Group with chronic and severe disease, Those who have been adopted by families, Gifted and talented group, Religious group that does not tolerate a high levels of education are poorly represented under 2%.

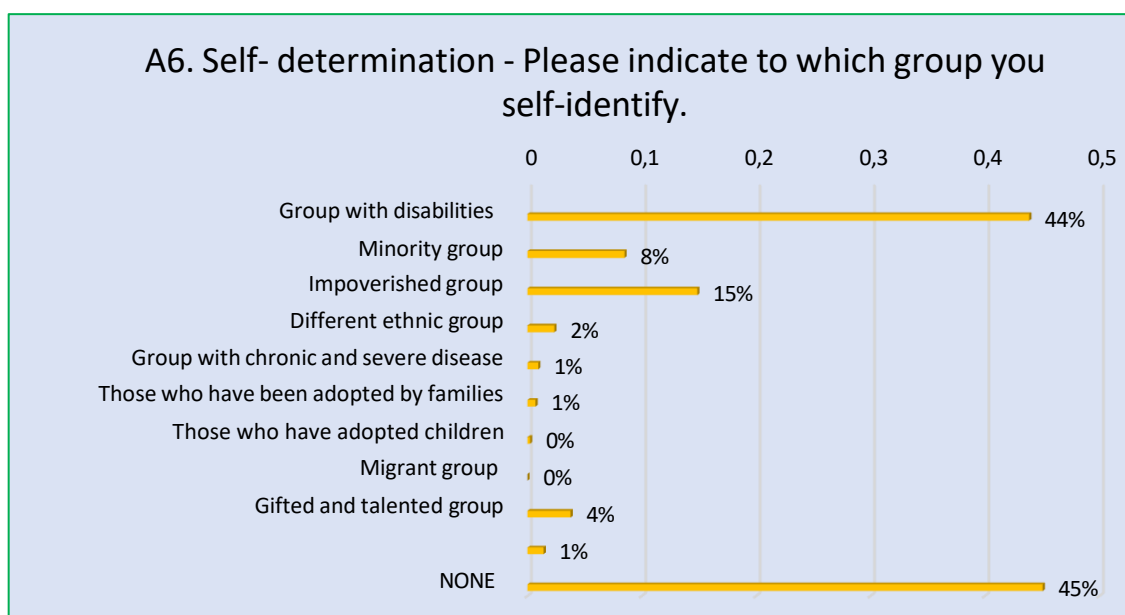


Figure 7. Diagram of results for self-determination of participants

Table 1. Distribution of results for self-determination of participants

Group	Percentage
Group with disabilities	44%
Minority group	8%
Impoverished group	15%
Different ethnic group	2%
Group with chronic and severe disease	1%
Those who have been adopted by families	1%
Those who have adopted children	0%
Migrant group	0%
Gifted and talented group	4%
Religious group that does not tolerate a high levels of education	1%
None	45%
Total	100%

Table 2. Distribution of results for self-determination of participants in combination

Group	percentage
NONE	45.2%
Group with disabilities	29.3%
Different ethnic group	1.0%
Minority group	4.6%
Impoverished group	1.9%
Gifted and talented group	2.2%
Group with disabilities Impoverished group	9.1%
Group with disabilities, Minority group	0.5%
Group with disabilities, Minority group, Impoverished group	2.6%
Group with disabilities, Different ethnic group	0.5%
Group with disabilities, Gifted and talented group	0.7%
Group with disabilities, Group with chronic and severe disease	0.5%
Group with disabilities, Impoverished group, Different ethnic group	0.2%
Group with disabilities, Impoverished group, Gifted and talented group	0.2%
Group with disabilities, Impoverished group, Group with chronic and severe disease, Gifted and talented group	0.2%
Group with disabilities, Minority group, Impoverished group, Group with chronic and severe disease	0.2%
Group with disabilities, Those who have adopted children	0.2%
Minority group, Different ethnic group, Religious group that does not tolerate a high levels of education	0.2%
Minority group, Gifted and talented group, Religious group that does not tolerate a high levels of education	0.2%
Minority group, Impoverished group	0.2%

Fig. 8 presents the distribution of participants by study at university. The results show that the most participants (66,3%) study at a university and the other 33,7% do not study.

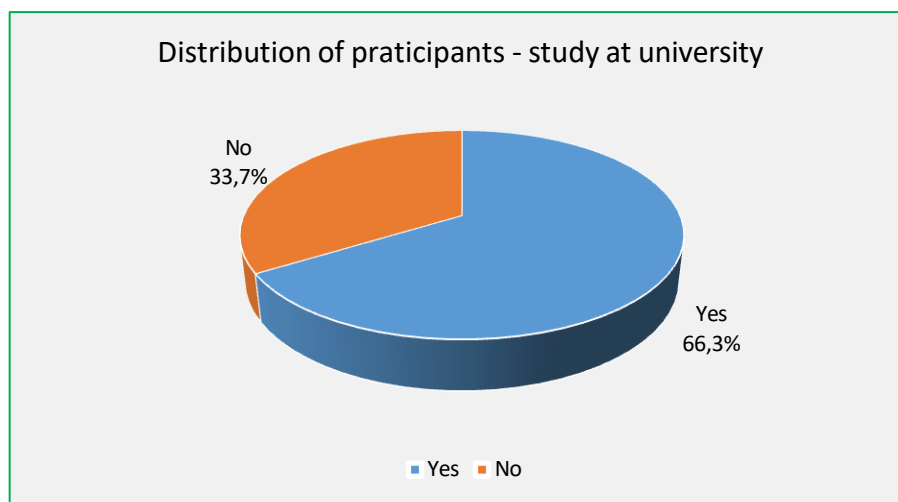


Figure 8. Diagram for distribution of participants by study at university

Most of the participants study in university (66,9%). The others have indicated university collage (15,3%) as their type of higher education institution and 11,4% selected branch of the university. A small part pointed others (6,4%). The distribution of answers is shown at **Fig. 9**. Only 281 participants have answered this question.

2 ANALYSIS OF RESULTS FOR THOSE WHO ARE STUDYING AT A UNIVERSITY

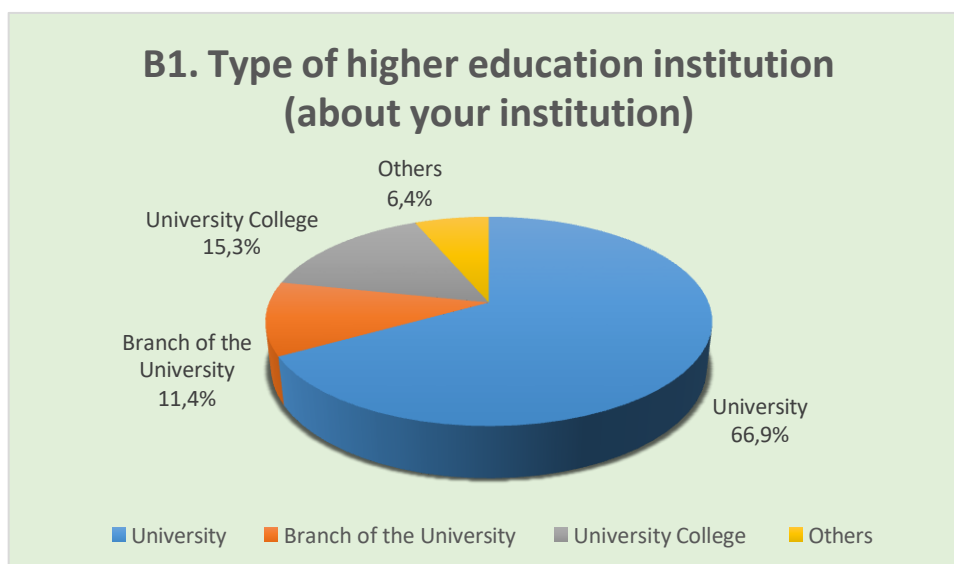


Figure 9. Diagram for the type of higher education institution

On the question „**Does your educational institution tend to exclude students with disabilities?**“ most of the participants indicated that they disagree almost 40% (disagree – 26,7% and strongly disagree - 12,5%). The other 32,8% have chosen mostly agree

(agree – 25,3%, strongly agree – 7,5%). A part of them or 28,1% are not sure that their educational institution tend to exclude students with disabilities. The distribution of answers is shown at **Fig. 10**. Only 281 participants have answered this question.

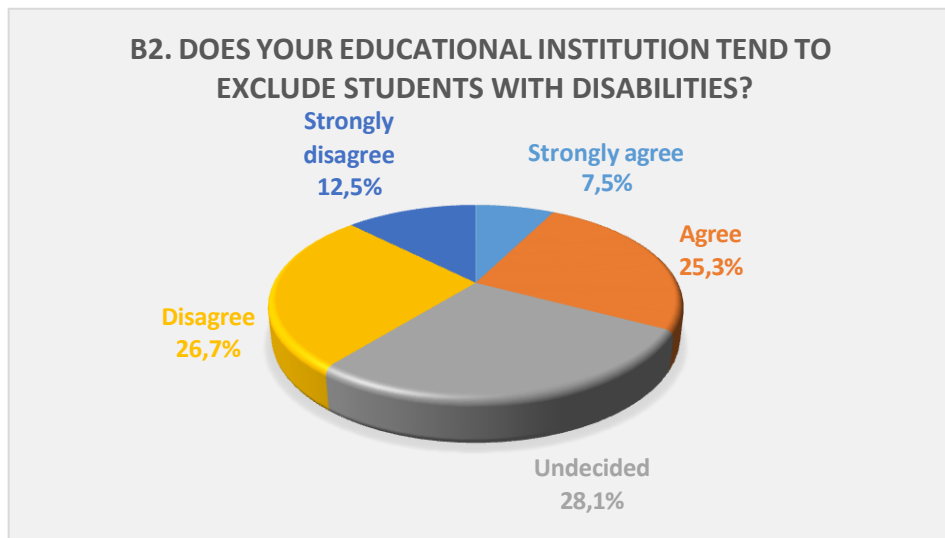


Figure 10. Diagram for the answers of the question “Does your educational institution tend to exclude students with disabilities?”

Fig. 12 presents the distribution of answers of participants of “Do you know of a Centre/Department for Inclusive Education at your university?”. The results show that the most participants or almost half of them 49,1% don’t know a Centre/Department for Inclusive Education at their university. A part of them 33,5% knows such kind of Centre and they use its services. A small part 17,4% knows such a Centre but they don’t use its services. Only 281 participants have answered this question.

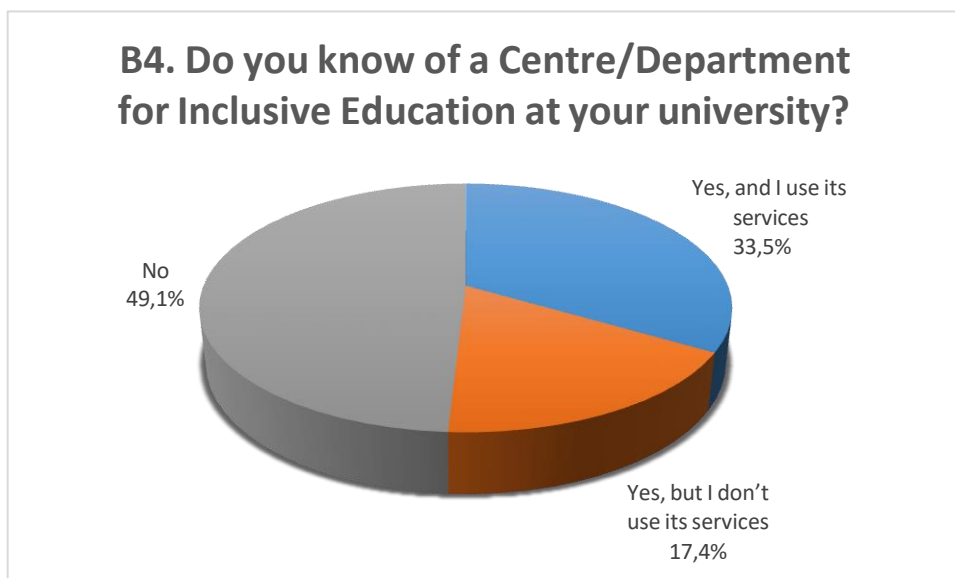


Figure 12. Diagram for the answers of question “Do you know of a Centre/Department for Inclusive Education at your university?”

The students that know and use the services of the Centre/ Department for Inclusive Education at their university have indicated that they use the Centre mostly for:

- solving administrative problems - 51,1%
- the opportunity to participate in various events - 41,5%
- help to fill in documents - 37,2%
- help with everything the students needs - 35,1%.

Next, the use of services is due to the fact that students like their attitude towards them (27,7%) or the service (25.5%), and because the center helps them with their daily activities (21, 3%). Not insignificant is the fact that they use it because they do not feel different, but valuable (16%).

A small part pointed out other reasons to use the services - 12.8%. The distribution of answers is shown at **Fig. 13**. Only 94 participants have answered this question.

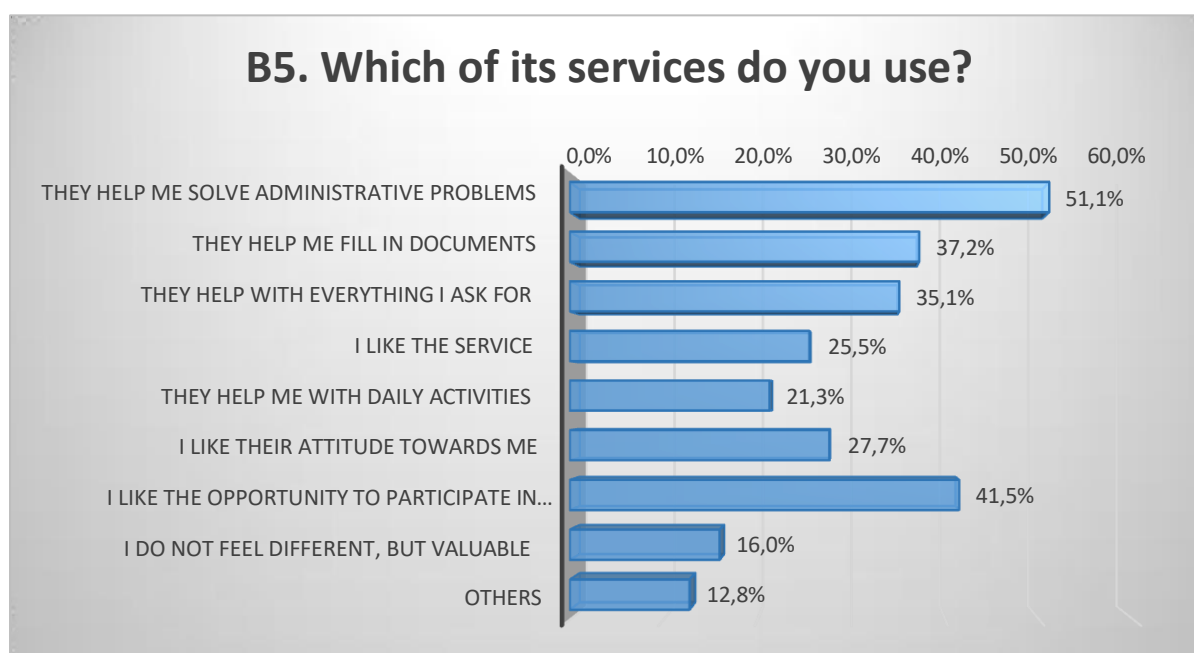


Figure 13. Diagram for the answers of question “Do you know of a Centre/Department for Inclusive Education at your university?”

Almost half of the students (47,9%) **that do not use the services** of the Centre/ Department for Inclusive Education at their university have indicated that they don’t use it because it creates administrative problems for them. Other significant reason is that the Centre wants them to fill in a lot of documents (according to 39,6% of students). A significant part of students don’t like the service – 35,4% or don’t want to be involved in various events (31,3%). A part of students don’t use because they haven’t received help when they needed it (31,3%). The attitude towards the students are also important reason to use the services according to 29,2% of the students.

A small part of students do not use the services because they think that the center uses them, and another part do not want to feel different (10,4%).

Some students have amplified other reasons why they do not use the center.

The distribution of answers is shown at **Fig. 14**. Only 48 participants have answered this question.

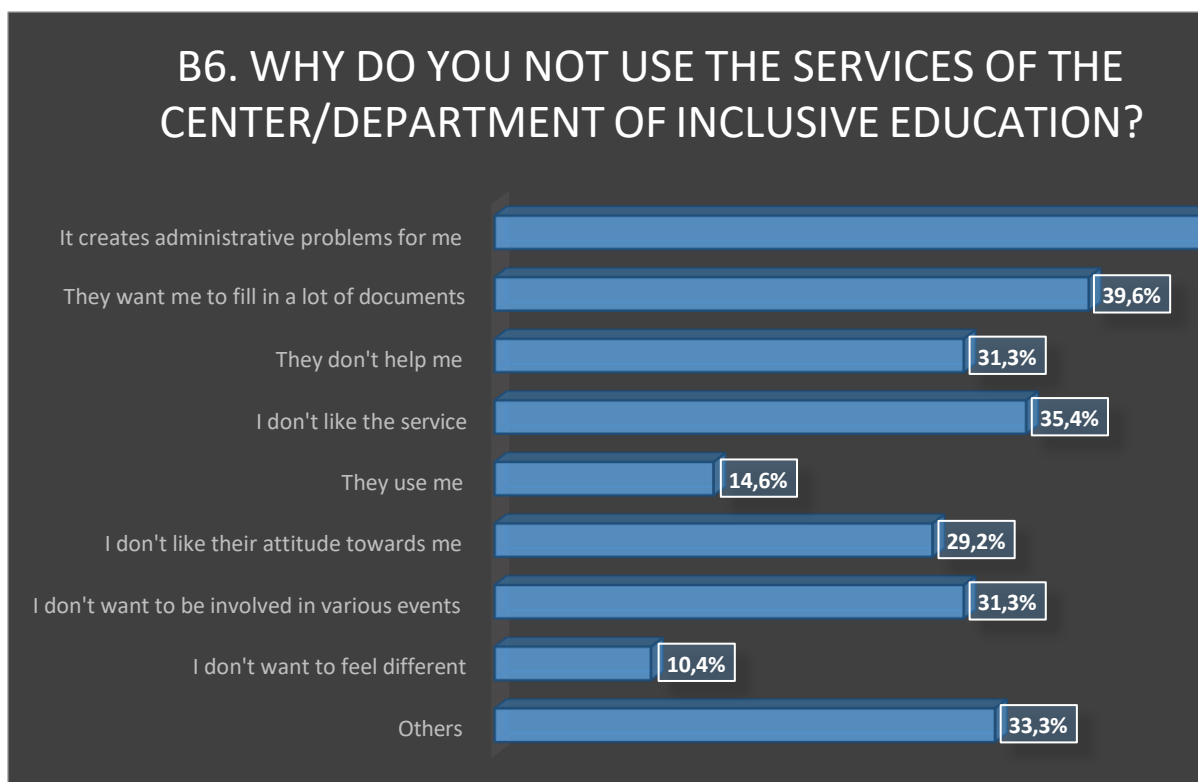


Figure 14. Diagram for the answers of question “Why do you not use the services of the Center/Department of Inclusive Education?”

The participants had to indicate what difficulties they encounter at their university. The results shows that mostly they encounter difficulties such as (**Fig. 15**):

- Lack of assistive technologies for training - 36,3%;
- The physical environment is not appropriate for their condition - 34,9%;
- Lack of teaching aids - 34,2%.

Difficulties which are indicated with lower frequency such as:

- lack of adapted sports facilities - 25,6%;
- lack of a personal electronic device - 25,3%;
- difficulties to find textbooks and scientific literature adapted to their condition in the libraries – 25,3%.
- not suitable food for their type of diet - 24,9%;
- impossibility fort personally communication with the teachers - 22,8%;
- they can't use all the household appliances and utensils in the kitchen – 20,6%;
- they can't use the facilities in the bathroom and toilet - 20,6%;

The least frequently mentioned difficulty in the university is that other students avoid them - 14,6%.

Not a small group has indicated other reasons - 40,2%.

Only 281 participants have answered this question.

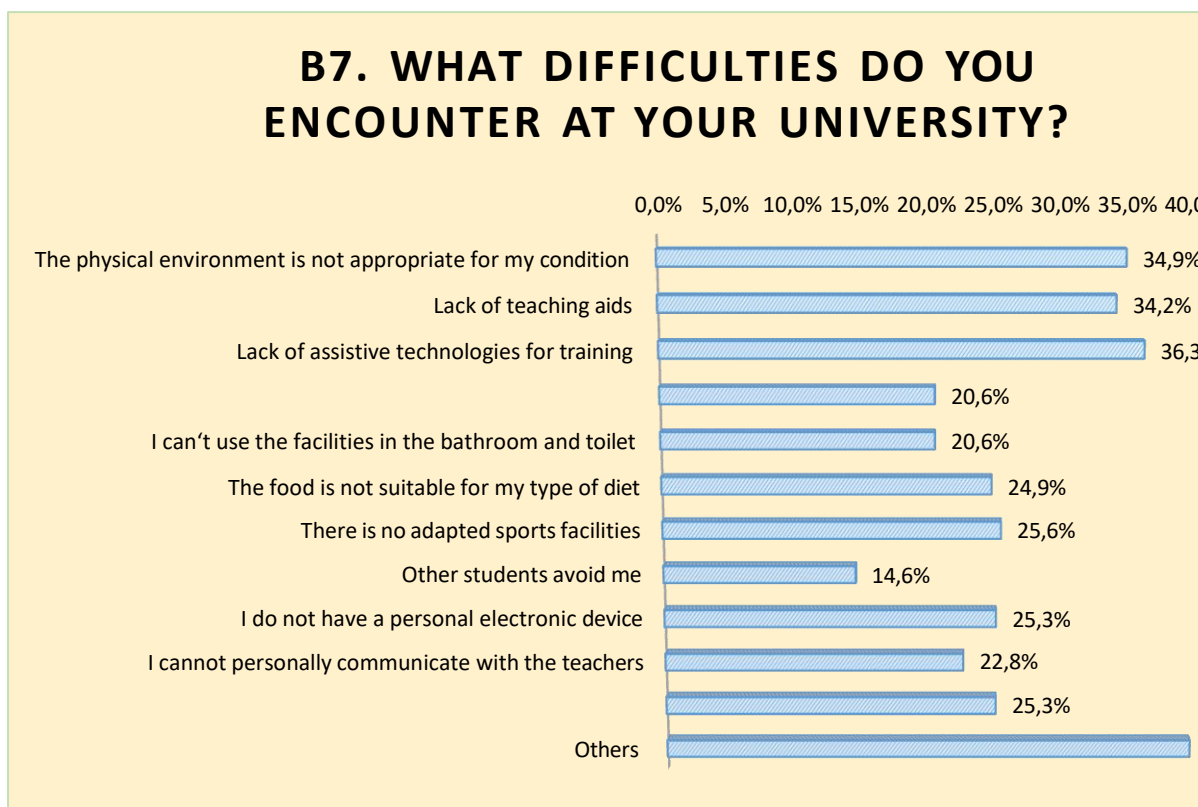


Figure 15. Diagram for the answers of question “What difficulties do you encounter at your university?”

According to 50,9% of the students there are lots of **advantages that studying at university has** for their condition such as a good physical and architectural environment. Another very important advantage is the social environment. Almost 30% are indicated advantages that they received from studying at university are the social contacts with other students. No less important is the help they receive from other students and studying together (28,8%), help from other students in daily activities (24,2%), and also many different types of aids at the university (24,2%).

Many of them have access to various assistive technologies (20,3%). Some participant (24,6%) mentioned that an advantage is the teachers' understandable way of teaching.

According to 24,9% an advantage of studying at the university is that there is a dedicated place of worship for my religion close by.

Advantages indicated with lower frequency are:

- a social scholarship - 18,9%;
- libraries have textbooks and scientific literature adapted for their condition - 17,4%;
- self-service in dormitories is easy for them - 16,4%;
- a personal communication with the teachers - 15,7%;
- a variety of adapted sports facilities - 13,9%.

A very few students think that advantages are the special foods suitable for their type of diet (10,7%) or the specialized transport they receive on request – 7,8%. Only 281 participants have answered this question.

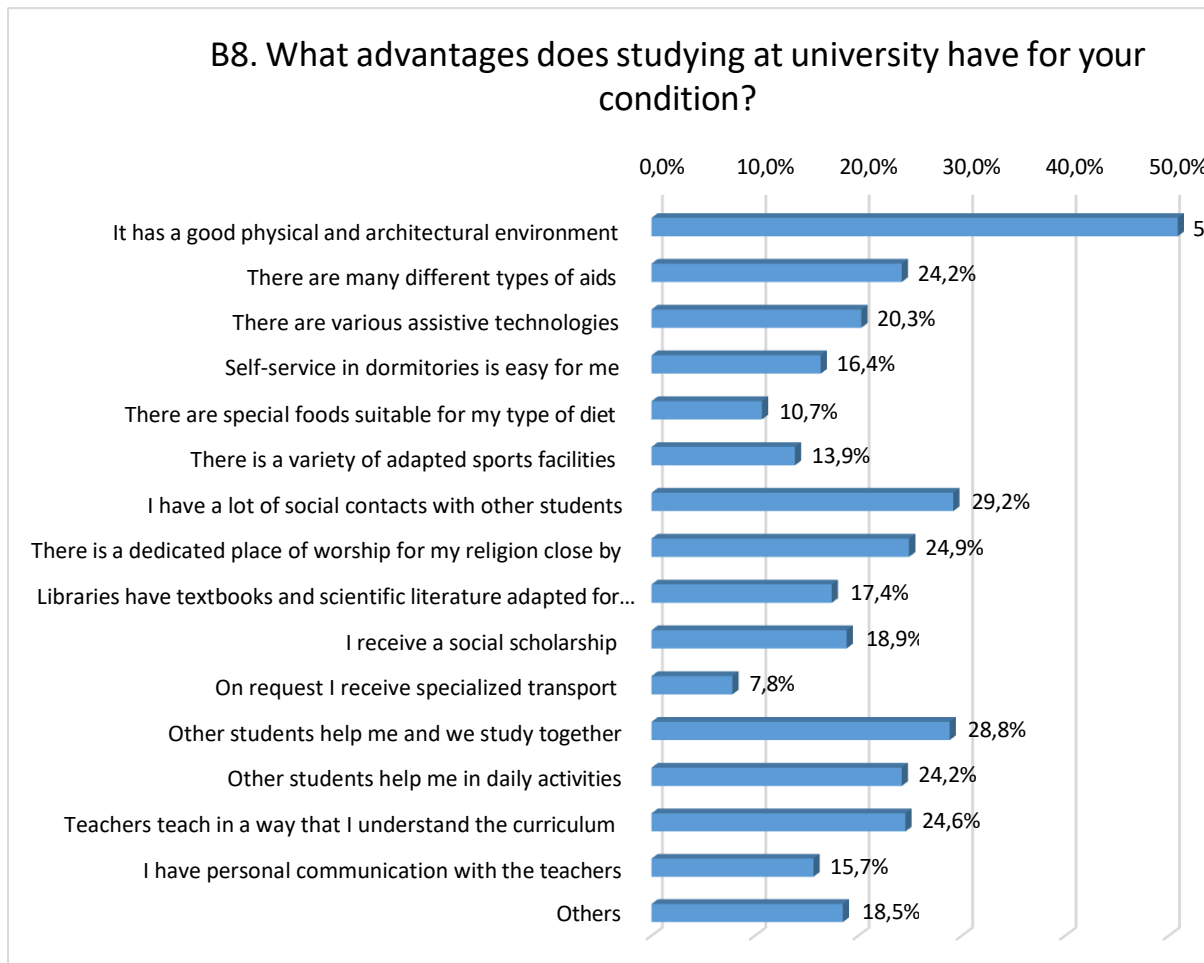


Figure 16. Diagram for the answers of the question “What advantages does studying at university have for your condition?”

Figure 17 presents the distribution of the answers to question “Do you think that others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) influence your thinking and behavior? “. Only 281 participants have answered this question. The results shows that most of the participants think that others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) influence your thinking and behavior – 65,5% answered with yes.

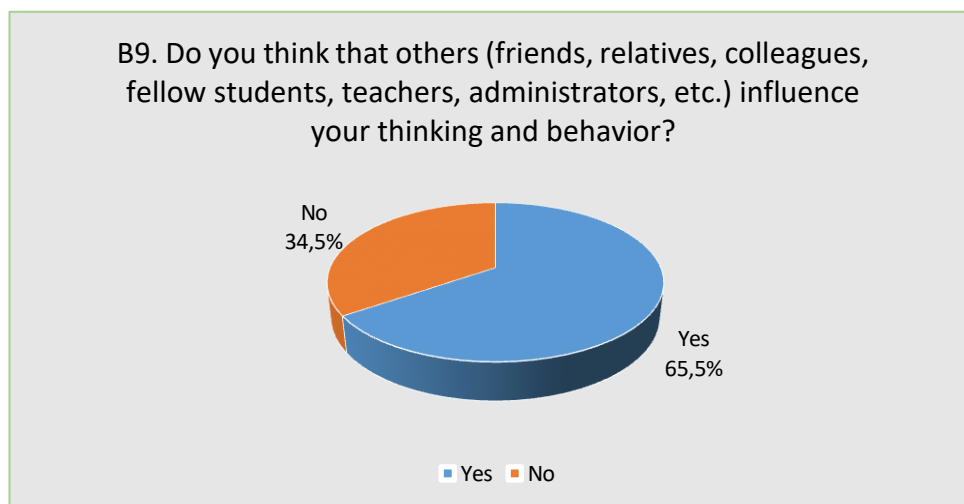


Figure 17. Diagram for the answers of question “Do you think that others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) influence your thinking and behavior?”

Figure 18 presents the distribution of answers to the question “When you receive feedback from others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) does it influence your thinking and behavior? “. The results show most of the participants think that when they receive feedback from others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) it influences their thinking and behavior – 73% answered with yes and other 27% answered with no. Only 281 participants have answered this question.

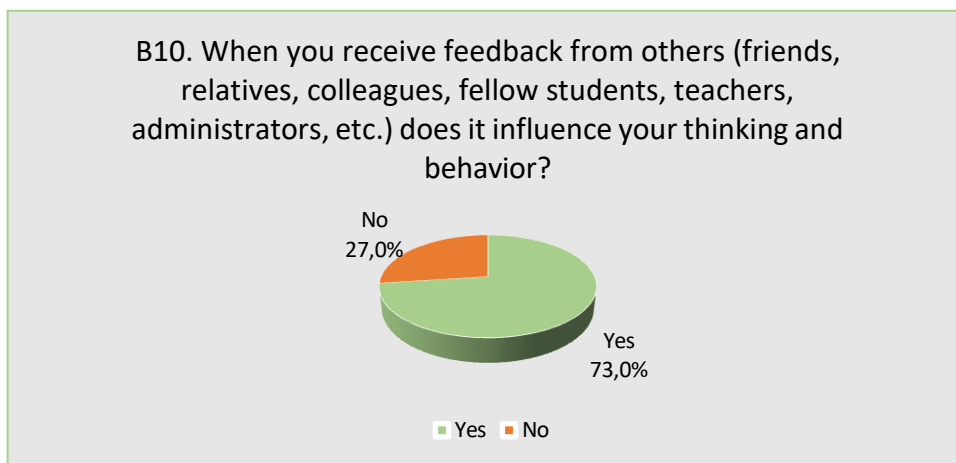


Figure 18. Diagram for the answers of the question “When you receive feedback from others (friends, relatives, colleagues, fellow students, teachers, administrators, etc.) does it influence your thinking and behavior?”

A relatively large part of the participants (70,1%) that are studying at university have an emotional attachment to the university. This is shown at **Fig. 19**. Only 281 participants have answered this question.

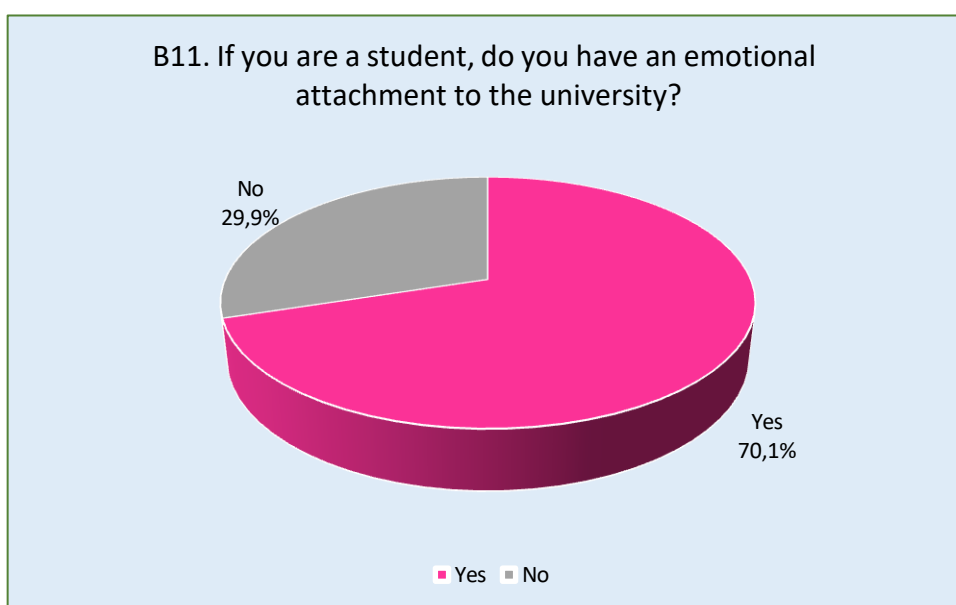


Figure 19. Diagram for the answers of question “If you are a student, do you have

an emotional attachment to the university?

3 ANALYSIS OF RESULTS FOR INCLUSIVE POLICIES AND PRACTICES

The **statements that applies most to the institution** where the students study are (**Fig. 20 A, Fig. 20 B, Fig. 20 C**, Fig. 20 A is divided in two parts Fig. B and Fig. C):

- There are inclusive policy guidelines in my institution (answers *yes* are 51,6%);
- Collaboration and networking is promoted in their institution (answers *yes* are 49,1%);
- There is a plan for inclusive education in Higher Educational Institutions in a crisis situation (answers *yes* are 32%).

The statements, **which mainly do not apply to the institution** where the students study, are:

- That students are involved in annual audits of inclusive policies and practices (54,8% answered *no*);
- They fill in checklists to assess the inclusion of university facilities and services. The distribution of answers *no* are 45,9%;
- In my institution, administrators have inclusive behaviour/ attitude – 37,7% answered *no*;
- In my institution, teachers have an inclusive behaviour/ attitude – 37,7% answered *no*.

Students are **not aware of whether it applies to their institution** is and they answer with *don't know*:

- There is a specialized programme for peer support between non-disabled students and students with disabilities (44%).
- There is an inclusion unit responsible for the support of students with disabilities for study at their institution (44%).
- There is an inclusion unit responsible for the support of students with disabilities during our enrolment (49%).
- There is a plan for inclusive education in Higher Educational Institutions in a normal situation (32%).

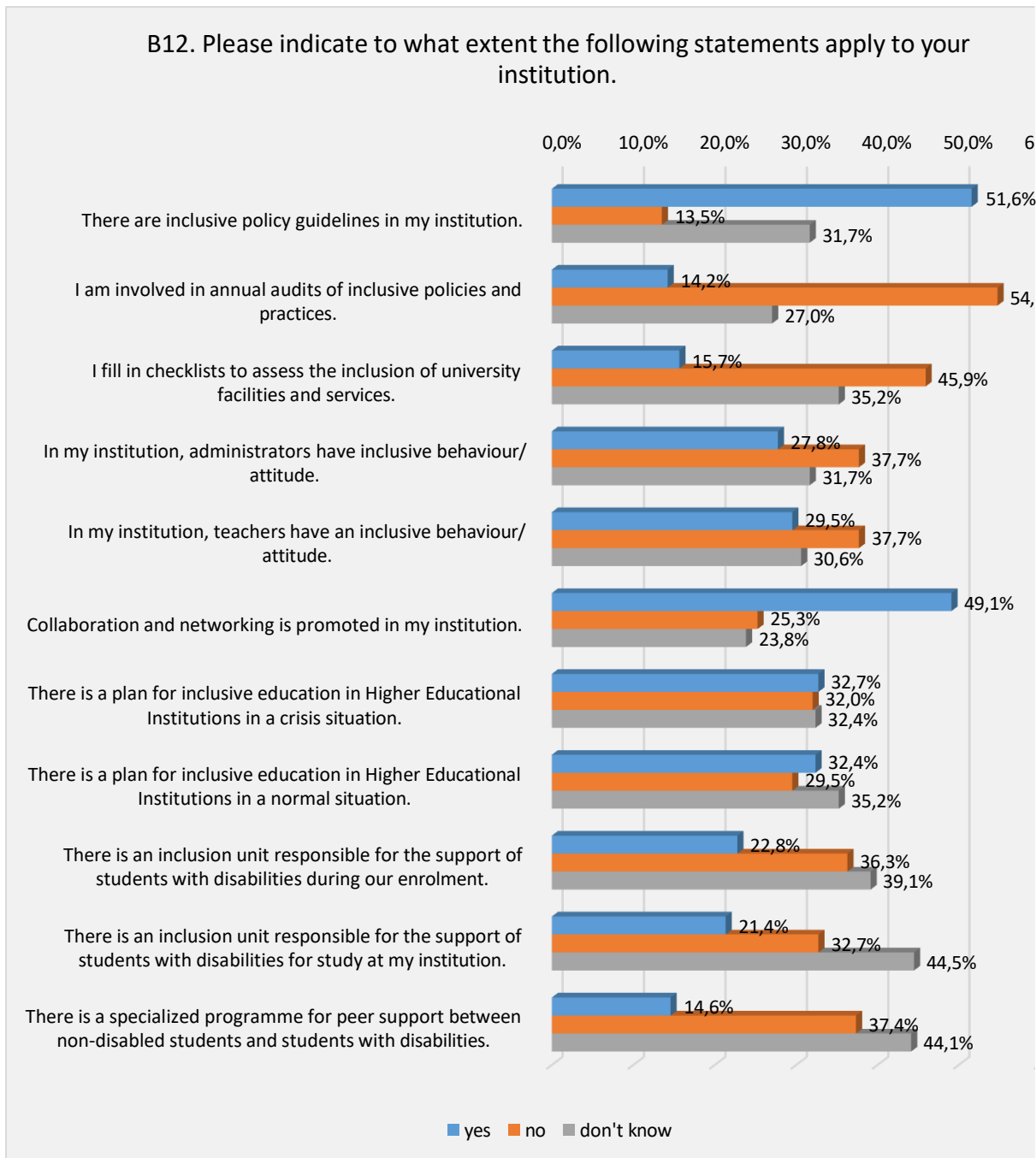


Figure 20. A. Diagram for the answers about the extent the statements apply to institutions

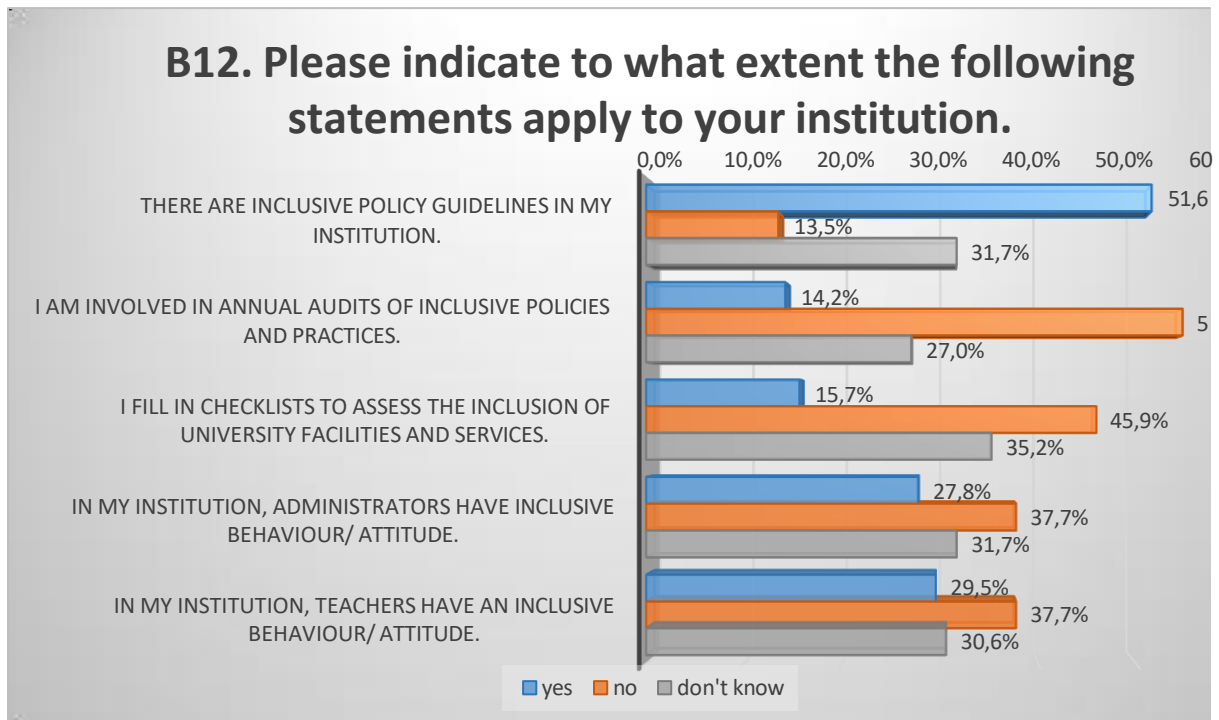


Figure 20. B. Diagram for the answers about the extent the statements apply to institutions

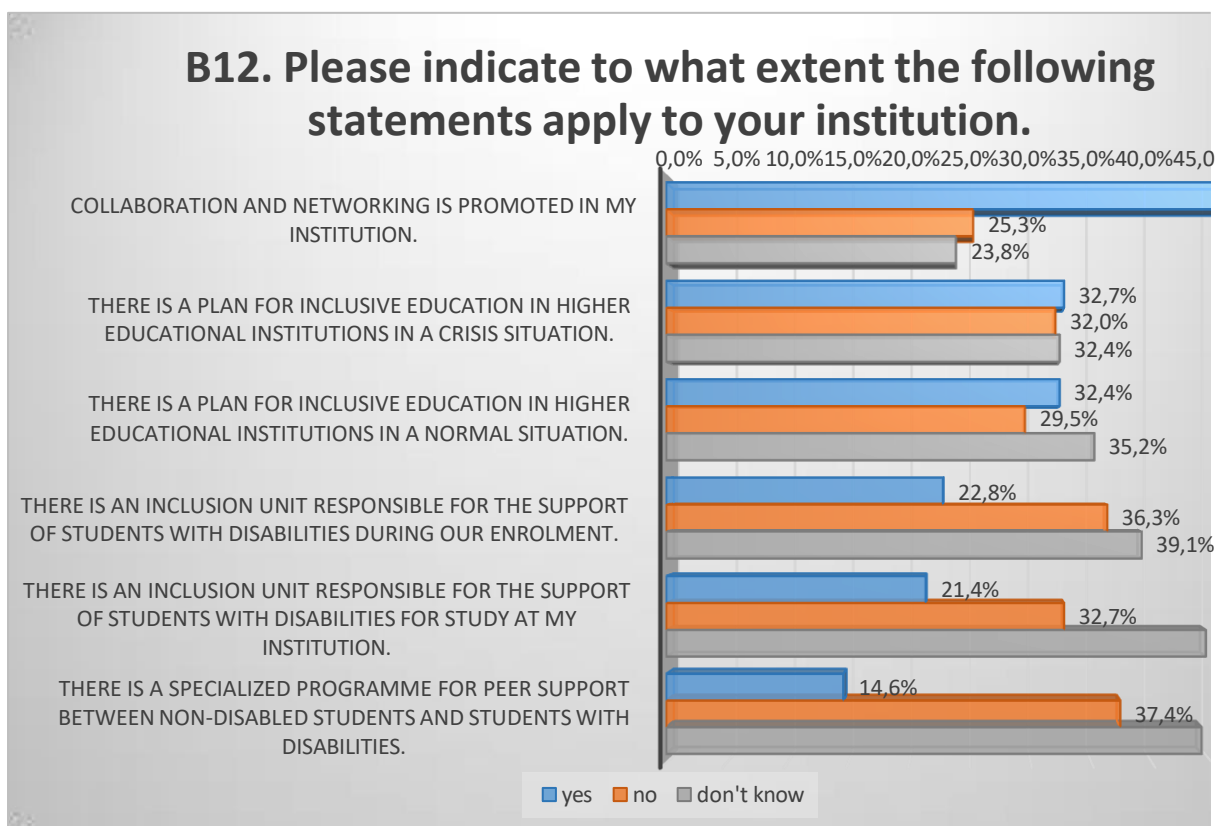


Figure 20. C. Diagram for the answers about the extent the statements apply to institutions

Results reveal that according to most of students (24,6%) assistive technology and software, such as screen readers, dictaphones, Zoom Text, Kurzweil are resources that **are not provided at all** (but they can be bought from a student's own budget). Only 18,5% think that assistive technology and software are provided for students who need it. Another part of students 14,6% answered that assistive technology resources are provided minimally and insufficiently. Very few students think that technological support (if necessary) is provided for all students (the educational institution has good and knowledgeable IT support staff) – 13,2%. Some students answered with others – 29,2%. The distribution of answers can be seen at **Fig. 21**. Only 281 answered this question.

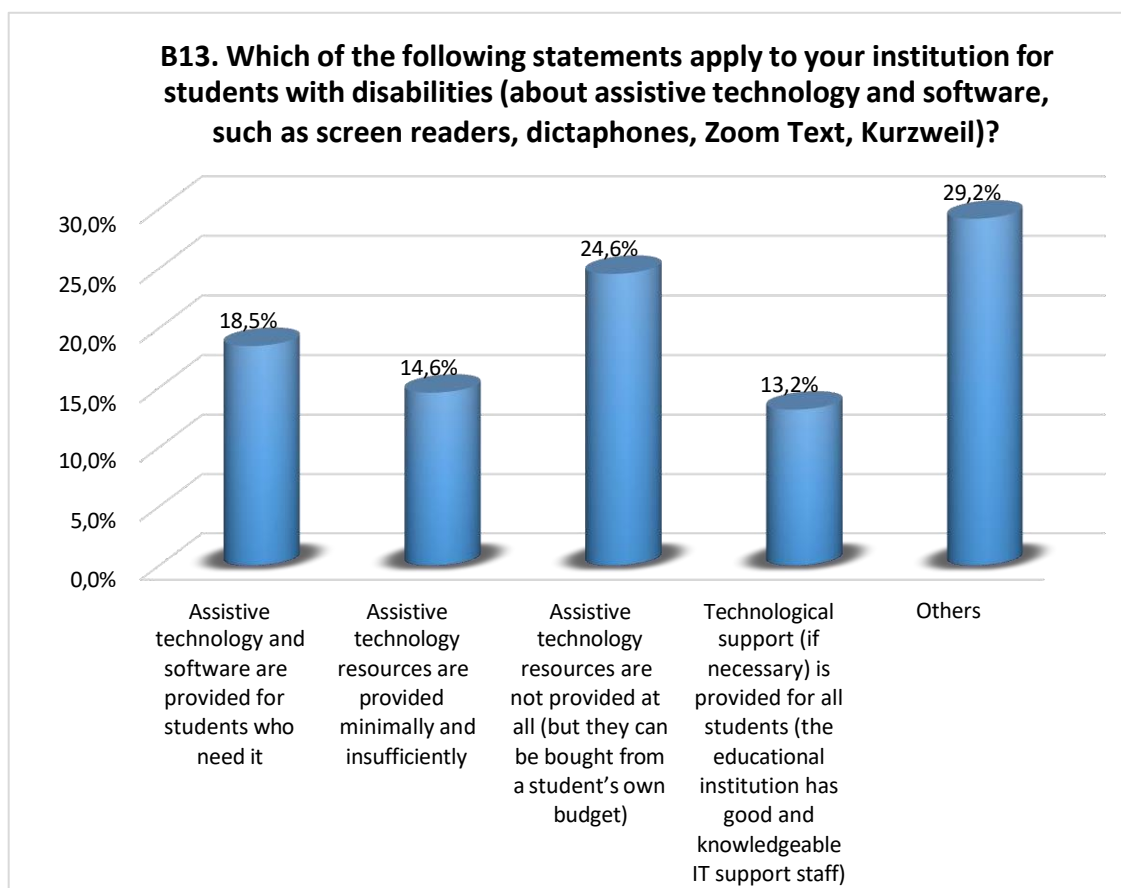


Figure 21. Diagram for the answers of the question “Which of the following statements apply to your institution for students with disabilities (about assistive technology and software, such as screen readers, dictaphones, Zoom Text, Kurzweil)?”

Students consider that their **institution promotes an inclusive curriculum** (which considers the special needs of students with disabilities) by applying mostly collaborative learning (19,3%). Other approaches applied but not very often by the institutions for promoting an inclusive curriculum are connected with:

- Learner-centred design approach with a focus on the student and learning instead of teaching – 15,6%;
- Flexible ways of assessment - 13,7%;
- Individual course guides and/or learning-paths- 7,8%;
- Flexibility in the choice of studies - 11,9%;
- Diversity included in the curriculum - 7,8%.

The least applied is flexible examination and practical sessions (0,9%).

The answer “None” is given by 13,7%, and others -9,3%. The answers distribution can be seen at **Fig. 22**. Only 281 answered this question.

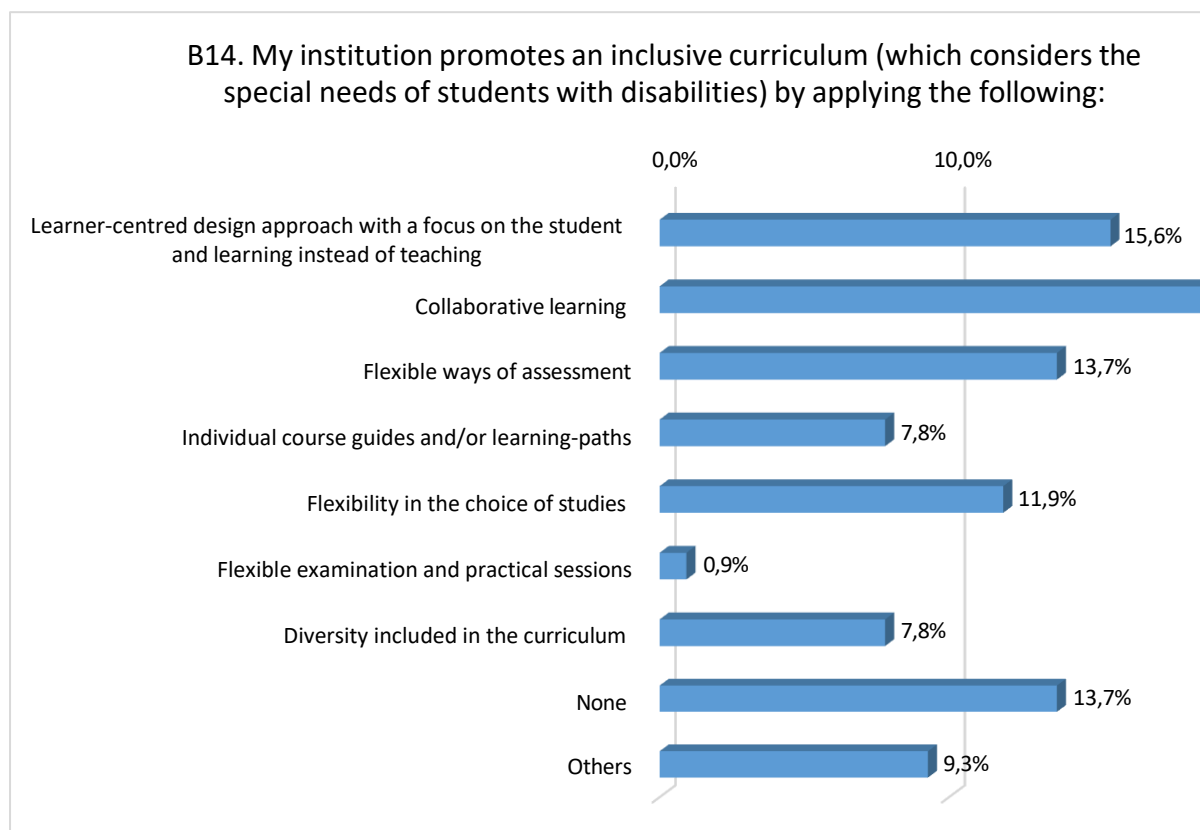


Figure 22. Diagram for the answers of statement “My institution promotes an inclusive curriculum (which considers the special needs of students with disabilities) by applying the following:”

Students consider that their **institution ensures that teaching and learning practices are learner-centred** by encouraging mostly flexible course design (41,3%), to some extent are encouraged flexible instructional methods (28,8%), flexible course assessment (26%), flexible and accessible course content (24,6%) and extra time for studies and/or exams to those students who need it (22,1%).

The institution ensures that teaching and learning practices are learner-centred by encouraging least the non-discriminatory use of language (12,8%). The distribution of answers of 281 students is given at **Fig. 23**.

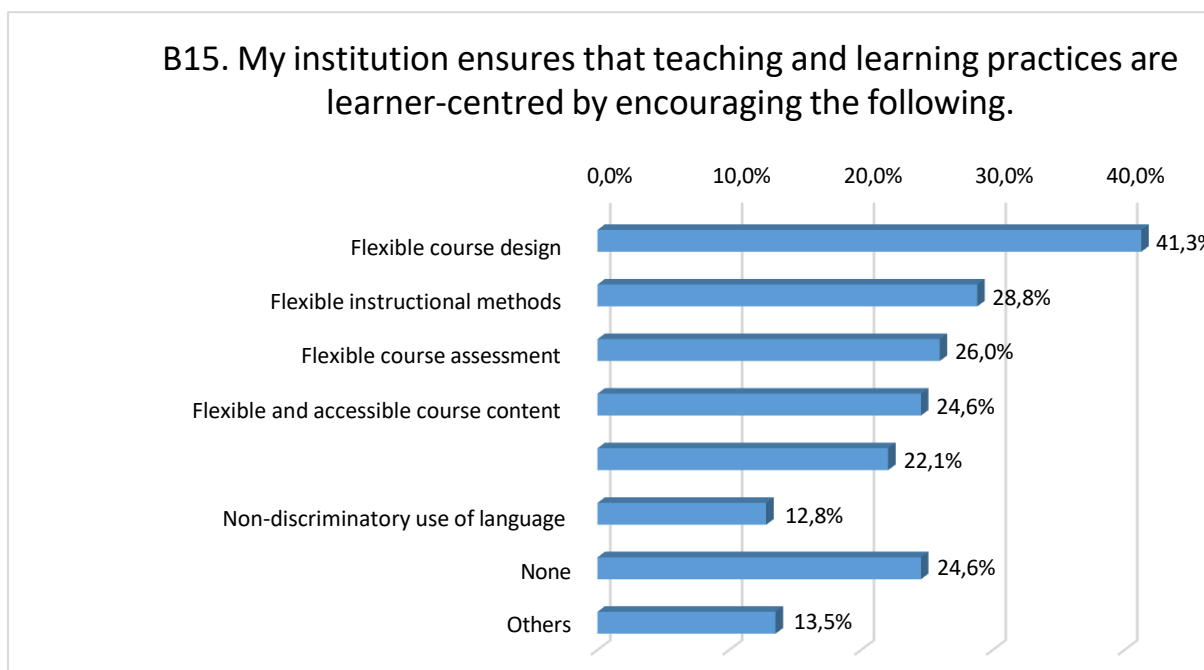


Figure 23. Diagram for the answers of statement “My institution ensures that teaching and learning practices are learner-centred by encouraging the following:”

Students consider that their **institution promotes and encourages inclusion**, which considers the special needs of students with disabilities, by applying and encouraging mostly the following:

- Scholarships / study grants - 44,1%;
- Waiving tuition fees for marginalized groups - 38,8%;
- Free education -27,4%.

At less extent the institution is applying and encouraging the following:

- Flexible admission language requirements - 23,1%;
- Group work and interaction - 22,4%;
- Contact between students with different backgrounds (for instance students with disabilities with minority backgrounds and students without) – 16%
- Student orientation and guidance (such as tutoring / peer-to-peer tutoring, introductory tours by volunteer students etc.) – 15,7%

At least the institutions are applying and encouraging the Inclusion of different gender and sexual minority students – 12,5%.

Others are selected 21% of 281 participants (**Fig. 24**).

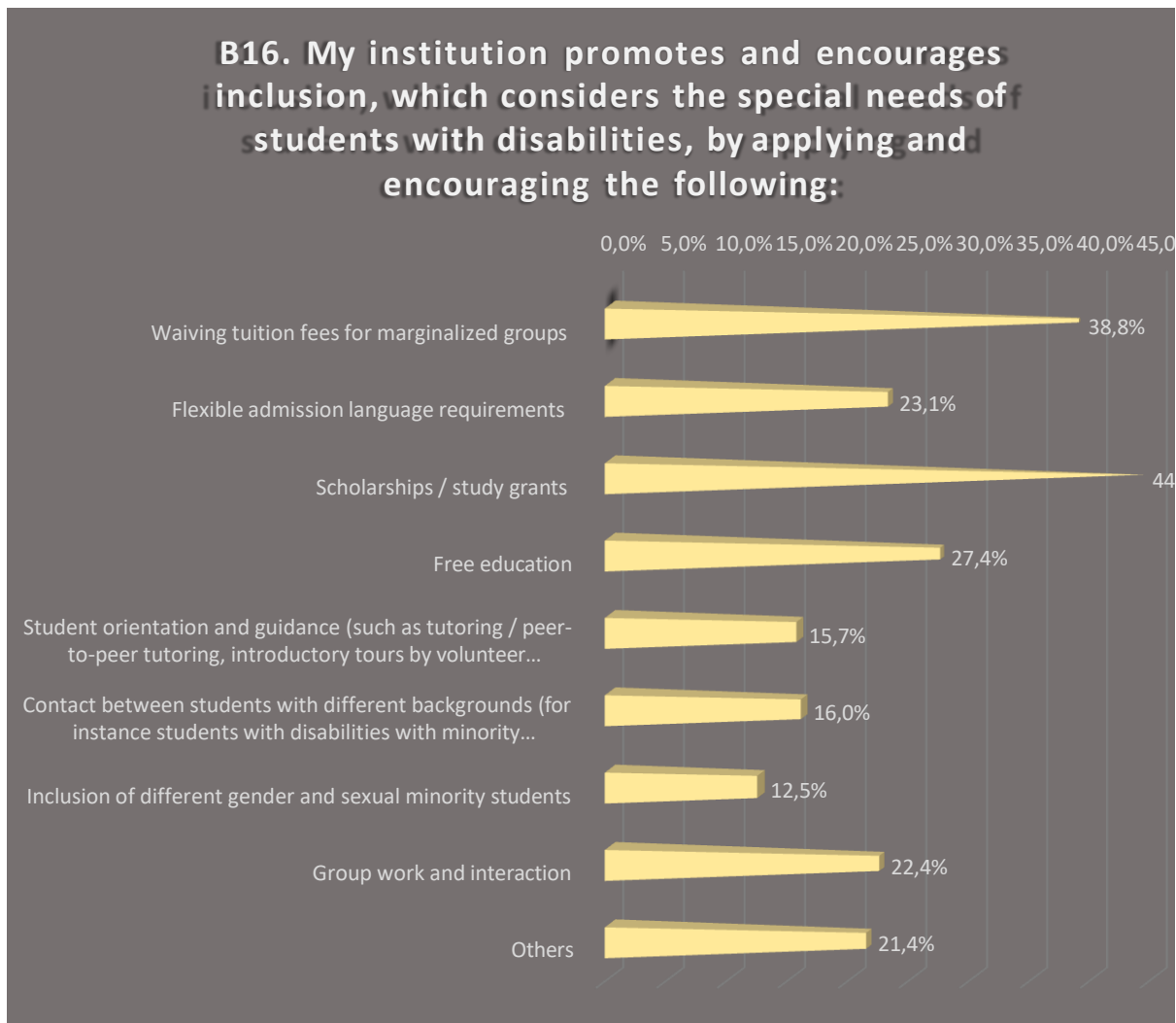


Figure 24. Diagram for the answers of statement “My institution promotes and encourages inclusion, which considers the special needs of students with disabilities, by applying and encouraging the following.”

The students **are mostly disagreed** (43,7%) that the institution they are studying promotes an inclusive environment **by ensuring the environment is physically accessible** (Strongly disagree – 20,7%, Disagree – 23%). Those who agreed are fewer (21,5; agree – 16,7%, Strongly agree – 4,8%).

The students **are mostly disagreed** (42,2%) that the institution they are studying promotes an inclusive environment **by ensuring the climate and culture is open and inclusive** (Strongly disagree – 28,5%, Disagree – 13,7%). Those who agreed are fewer (25,6; agree – 20,4%, Strongly agree – 5,2%).

The results are shown at **Fig. 25**. Only 281 students are answered.

The students **are mostly disagreed** (41,4%) that the institution they are studying promotes an inclusive environment **by providing educational materials (textbooks, PowerPoints, lectures) in alternative accessible formats** (Strongly disagree – 14,4%, Disagree – 27%). Those who agreed are fewer (27,5; agree – 21,9%, Strongly agree – 5,6%).

The students **are mostly disagreed** (45,9%) that the institution they are studying promotes an inclusive environment **by arranging all types of exams in a flexible manner adjusted to my needs** (Strongly disagree – 17,4%, Disagree – 28,5%). Those who agreed are fewer (24,1; agree – 20%, Strongly agree – 4,1%).

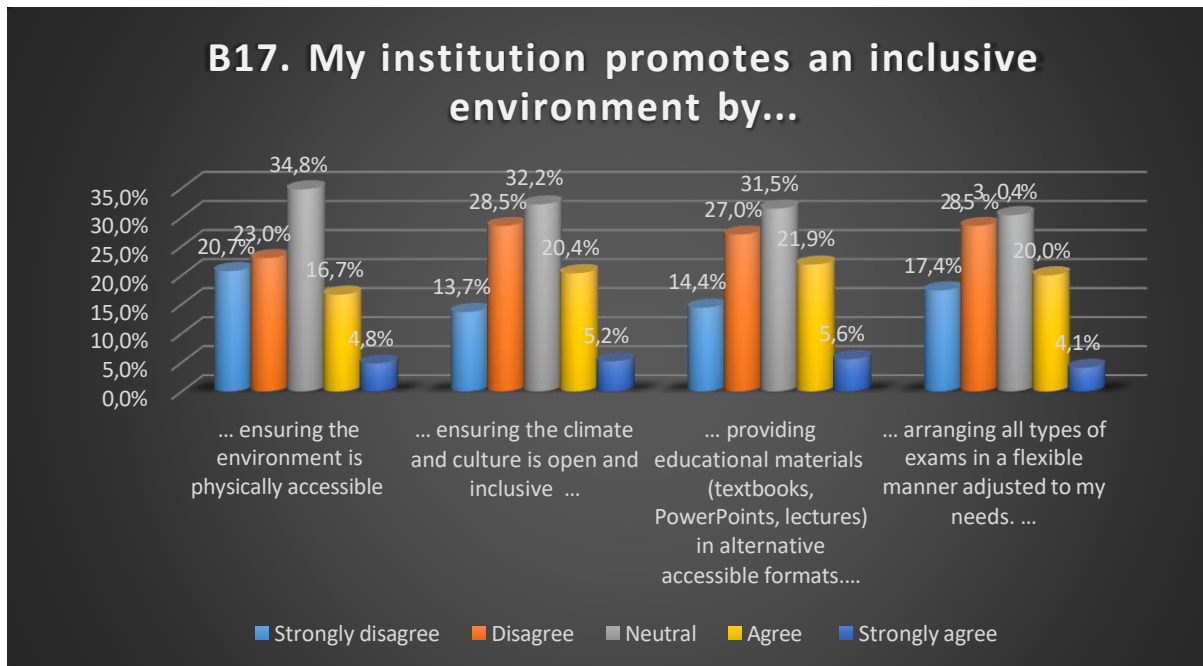


Figure 25. Diagram for the answers of statement “My institution promotes an inclusive environment by...”

The institutions ensure that the physical environment is accessible and inclusive by providing easy access to campus facilities (including indoor and outdoor paths, elevators, wheelchair ramps, automatic door openers, accessible/barrier-free toilets, accessible lighting, etc.) at 54,1% of cases.

Less often are provided:

- Online campus maps that demonstrate accessible areas - 19,2%;
- Parking space close to the entrance - 18,1%.
- University bus that is accessible for student -17,8%;
- Workstation with Access Ability sticker - 14,2%;

As others are indicated 32,7%.

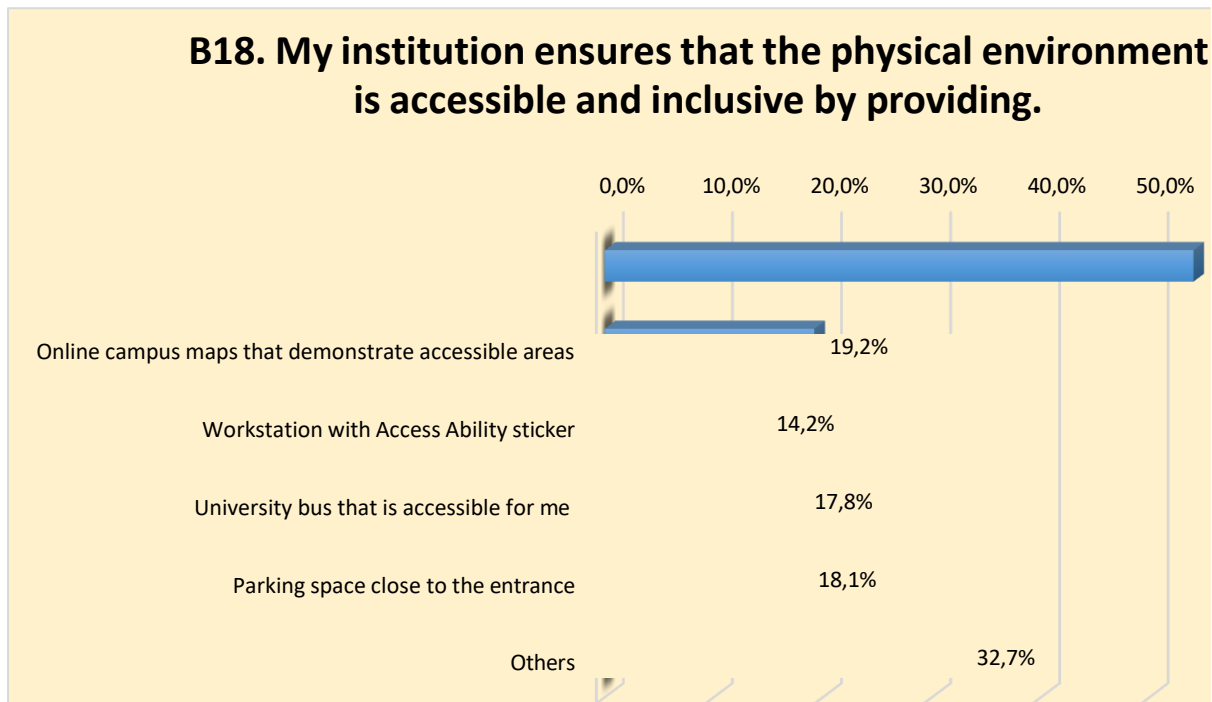


Figure 26. Diagram for the answers of the statement “My institution ensures that the physical environment is accessible and inclusive by providing:”

Most of the students do not have anything to add regarding inclusive policies and practices in your Higher Education Institutions (most answers no are 81,5%). Some answered yes (10,3%) without commenting what they mean. Other have evaluated inclusive policies and practices as good and very good. Their percentage is under 1%. Some don't know (3%). Another answers are illustrated at **Fig. 27**.

The following free responses are provided:

1 To build infrastructure for students with disabilities in every place on campus so persons with disabilities can move freely. College Kartik to provide advanced technology of cost.

2 To arrange special training for teachers to facilitate the education of students disabilities.

Adequate use of technology, and provision of adequate Braille books

Appropriate action needs to be taken

Assessing what kind of problem a disabled student is suffering, I request you to action accordingly.

Assessment modes should be flexible

Being unable to attend classes directly due to disability, online classes are profitable addition, if the library books are in PDF format, it is convenient to use the library's resource

Block chain, artificial intelligence

Certainly Critical Revealed Burman visually impaired students at every level of colleg

College premises and buildings should be made accessible for people with disa through construction of necessary structures.

Computer training for visually impaired students.

Computer training should be provided in the university, adequate quantity of Br books should be provided, travel guidelines should be provided, Braille printing facil

should be provided in all places of the university.

Emphasis on ICT.

Ensuring accessibility of students with disabilities at every level of the college.

For the people with disabilities in college there should be a personal attendant with them to help them in every way possible.

I think inclusivity should involve networking and interactions between people of opposite gender, disabilities or even differences without fearing any ill remarks or backlash. There is no educational bias but inclusivity must be pan campus.

I think there is no strong policy on inclusive education in my university.

I think University administration and teachers should gain proper knowledge in inclusive education. they have to take enough training about inclusive education and disabilities.

I want to go to USA to complete my PHD

If a better environment and technological support is need

Improve in food quality

In all colleges so that computer education system is kept for the visually impaired

Invite Guest Speakers to Share Their Stories.

Lower charges for services. Encouraging social interactions setting aside old social stigmas many things need.

Must have all the necessary materials for teaching

Needed flexible system in higher Studies for disable Students with Scholarship.

Of course I want to include integrated education policy

Other

Properly planned infrastructure for the disabled to move around the campus. Provide free advanced technology. To arrange special training for teachers to facilitate the education of students with disabilities. To organize a seminar every two months for the integration of general and disabled students.

Provide more collaborative facilities to students with special needs

Providing educational loans and developing us to do the innovative projects

Robotics technology and quantum computing

Secure campus

The quality of education should be further enhanced by stopping waiting and raising the standard of special education.

There are barriers to inclusive education for persons with disabilities in my higher education institutions.

There are no policies for students with disabilities, especially for university admissions dictator and exam assessment.

Travel bus

Try to develop many workshop as possible

University bus that is accessible for student

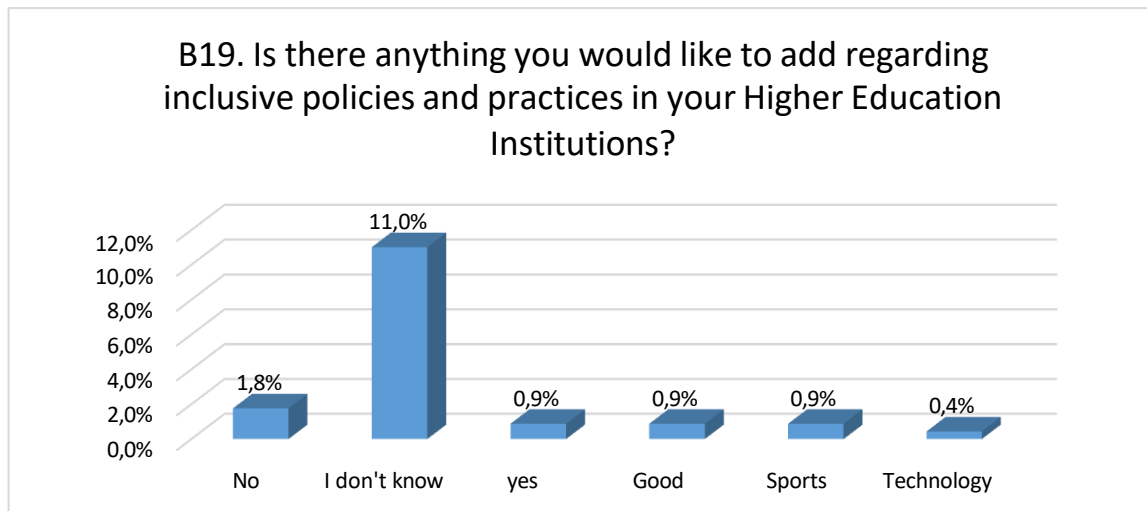


Figure 27. Diagram for the answers of the question “Is there anything you would like to add regarding inclusive policies and practices in your Higher Education Institutions?”

About the experience in the learning process with administrators most answers are “no” – 70,9%. This means that they had no challenges with administrators. 10,6% define it as good. The answers are shown at **Fig. 28**. Only 1,4% define it as bad and 2,1% as not good.

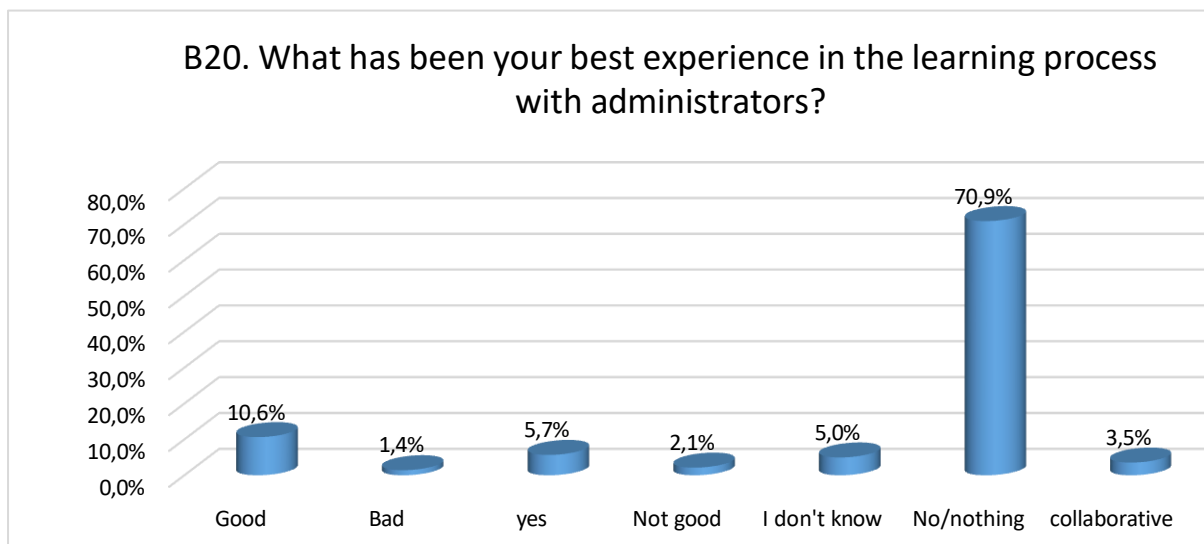


Figure 28. Diagram for the answers of the question “What has been your best experience in the learning process with administrators?”

About the experience in the learning process with university teachers most answers are “no” – 70,9%. This means that they had no challenges with teachers. 16,9% define it as good. The answers are shown at **Fig. 29**. There are no answers related to too bad impressions.

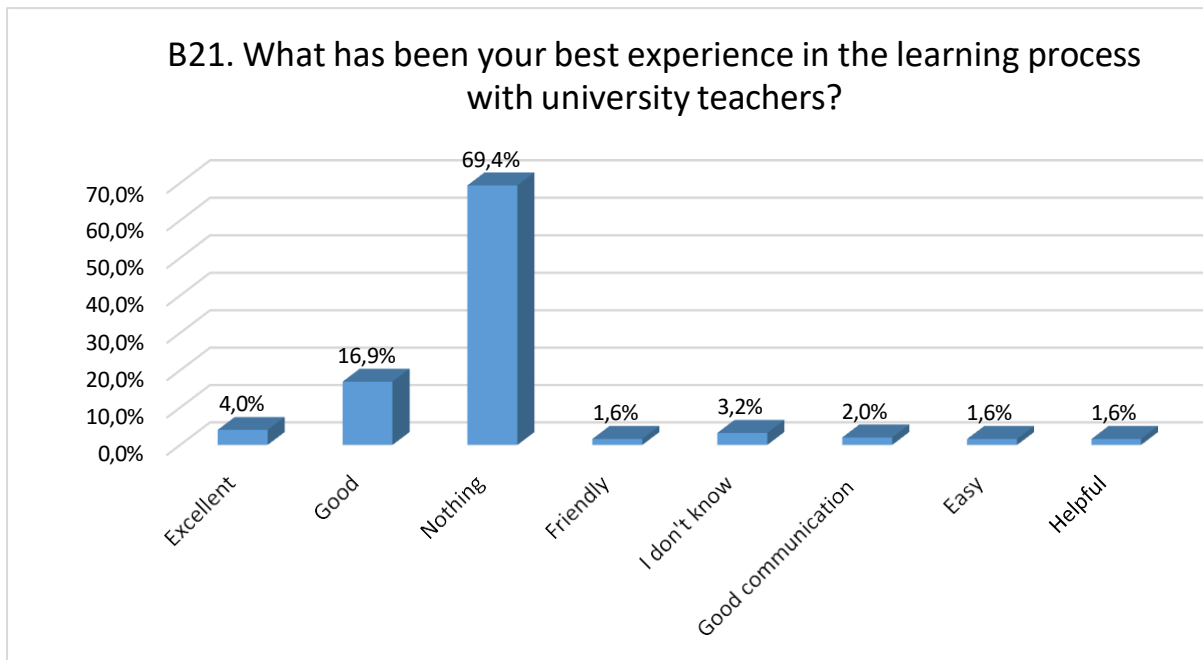


Figure 29. Diagram for the answers of the question “What has been your best experience in the learning process with university teachers?”

About the biggest challenges in experience in the learning process in Higher Educational Institutions most answers are “no” – 81,6% which means that they had no challenges in the learning process. 7,1% don't know. The answers are shown at **Fig. 30**.

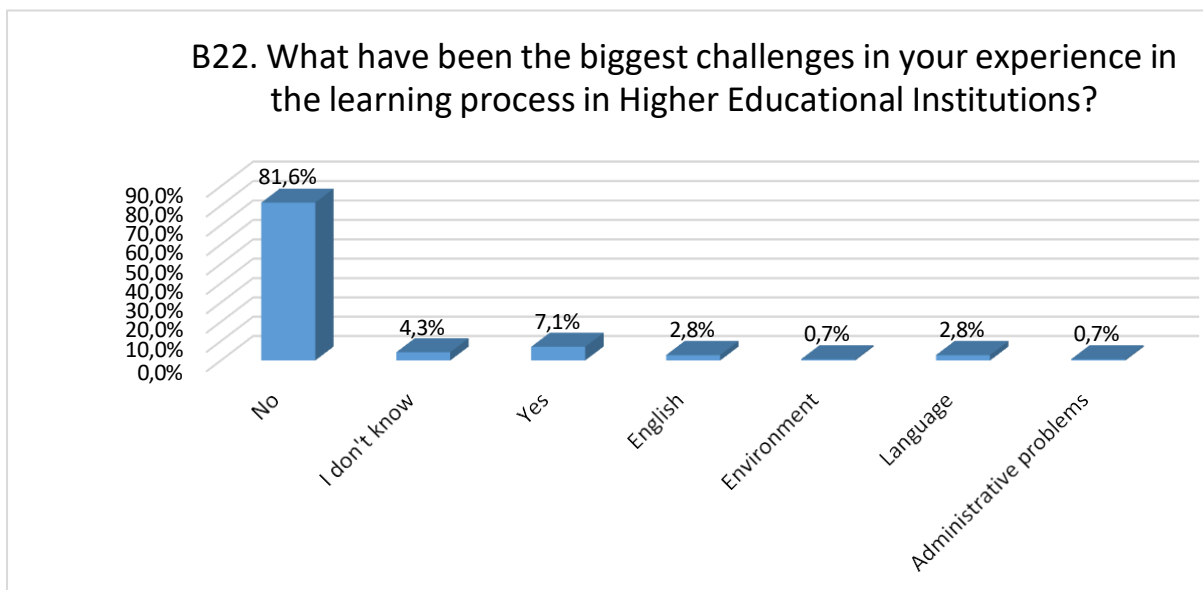


Figure 30. Diagram for the answers of the question “What have been the biggest challenges in your experience in the learning process in Higher Educational Institutions?” About the best achievements in the learning process most answers are “nothing” – 53,6% which means that they had no impression for the achievements in the learning process. The answers are shown at **Fig. 31**.

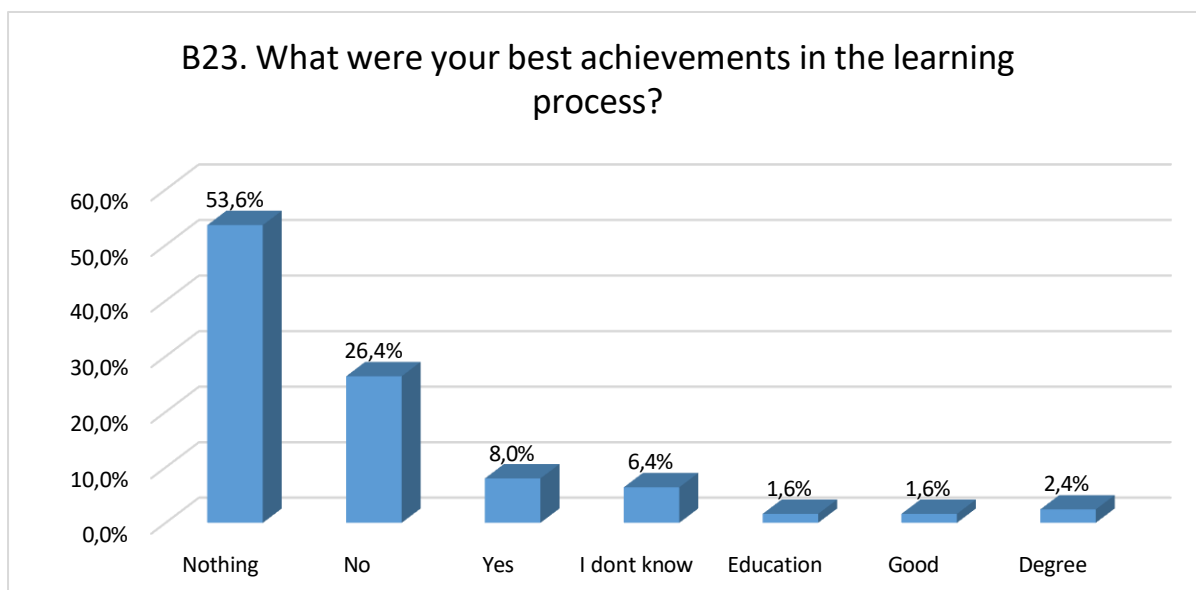


Figure 31. Diagram for the answers of the question “What were your best achievements in the learning process?”

3 ANALYSIS OF RESULTS FOR THOSE WHO ARE NOT CURRENTLY STUDYING AT A UNIVERSITY

The highest percentage is of participants who have not become students due to an early marriage. They are 60.1%. Another part (18.9%) indicated that they do not study because they have no interest in education. Another reason is the low success in the diploma (9,1%). There are many other reasons mentioned but less often (under 4% and less) that hindered or prevented the university studies such as (**Fig. 32**):

- Taking care of family members;
- Lack of decent clothes;
- failed the entrance exams;
- lack of a license for a high school diploma;
- Lack of transport to the university;
- Lack of finances;
- Lack of dormitories;
- Family traditions;
- A good income from their current job;
- The fear that they are not smart enough;
- Caring for their own children;
- Religious reasons;
- Stereotypes of their ethnicity;
- Social benefits are enough for them;
- Others.

The rarest reason (0,2%) is the fear that no employer will hire them with a university degree.

The students answered this question is 143 and they could select as many answers as applicable.

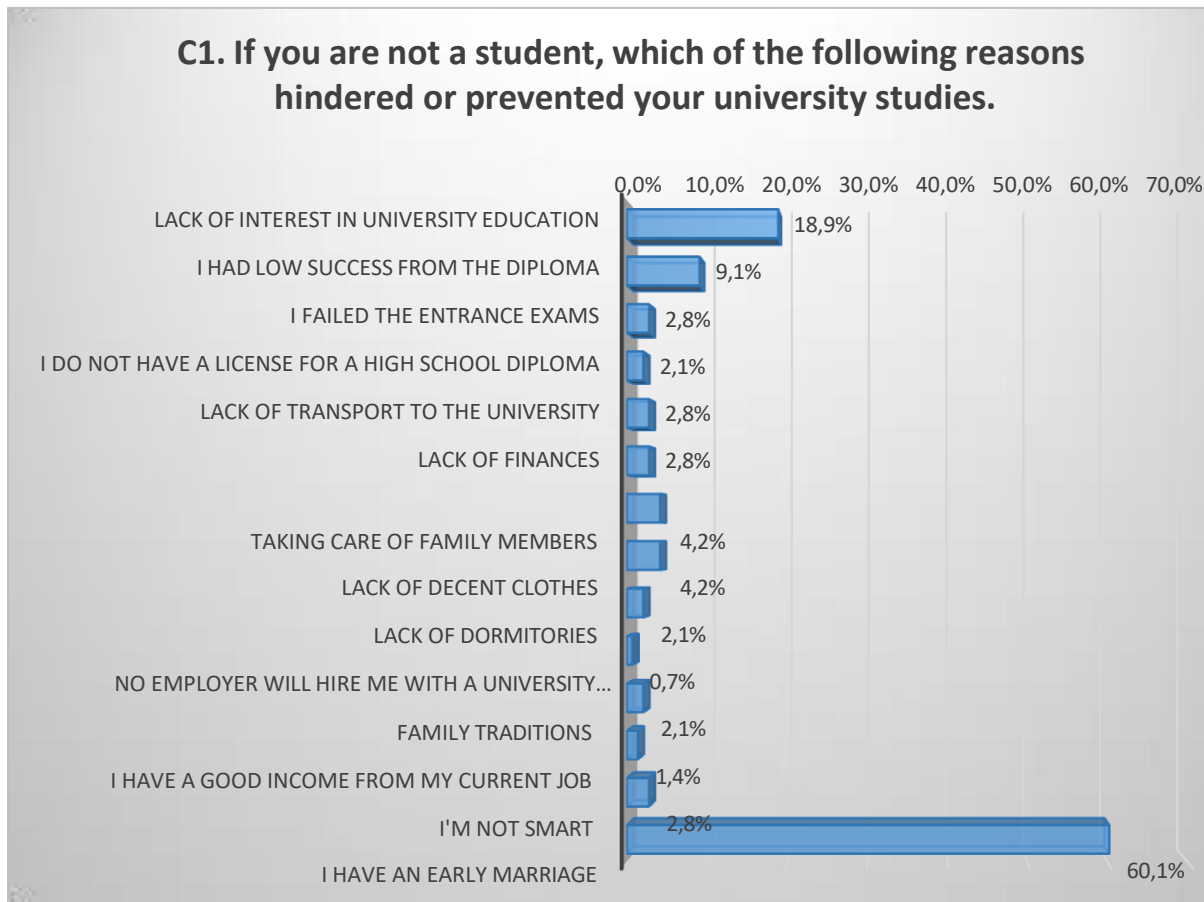


Figure 32. Diagram for the answers of the question about the reasons hindered or prevented university studies

Most of the participants (88,9%) have indicated that they married at age between 20 and 24. There are also participants who are married between the ages of 15 and 19, but they are just 7,4%. Even fewer are married between the ages of 10 and 14 - 3,7%. The results for 143 participants are shown at **Fig. 33.**

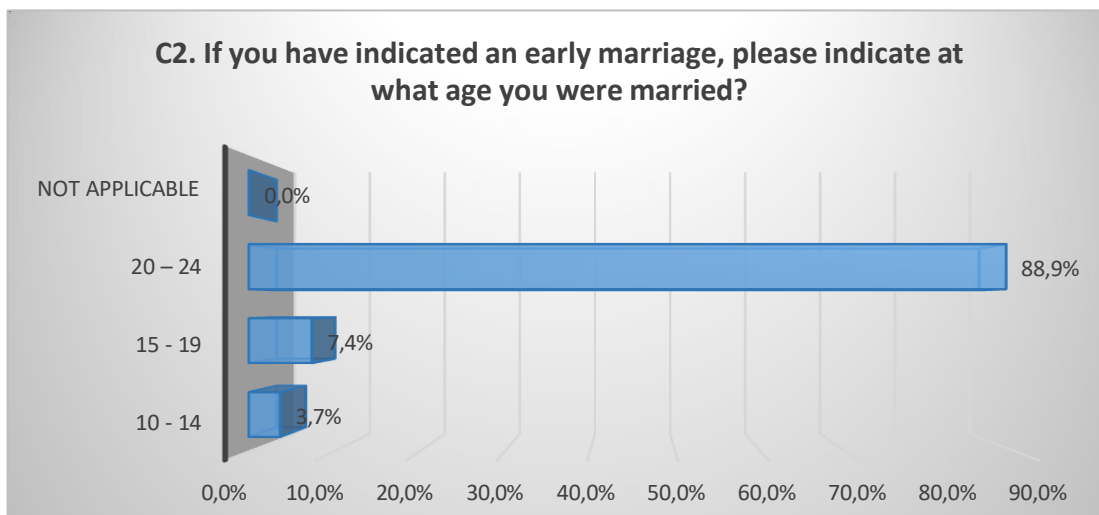


Figure 33. Diagram for the answers of question “If you have indicated an early marriage, please indicate at what age you were married?”

Only 10,5% of 143 participants have indicated that they have not been able to attend university due to caring for their own children. Most are those with two children – 4,2%, and at least 4 or more. The distribution of the answers is shown at **Fig. 34**. The other 89,5% answered that this is not applicable for them.

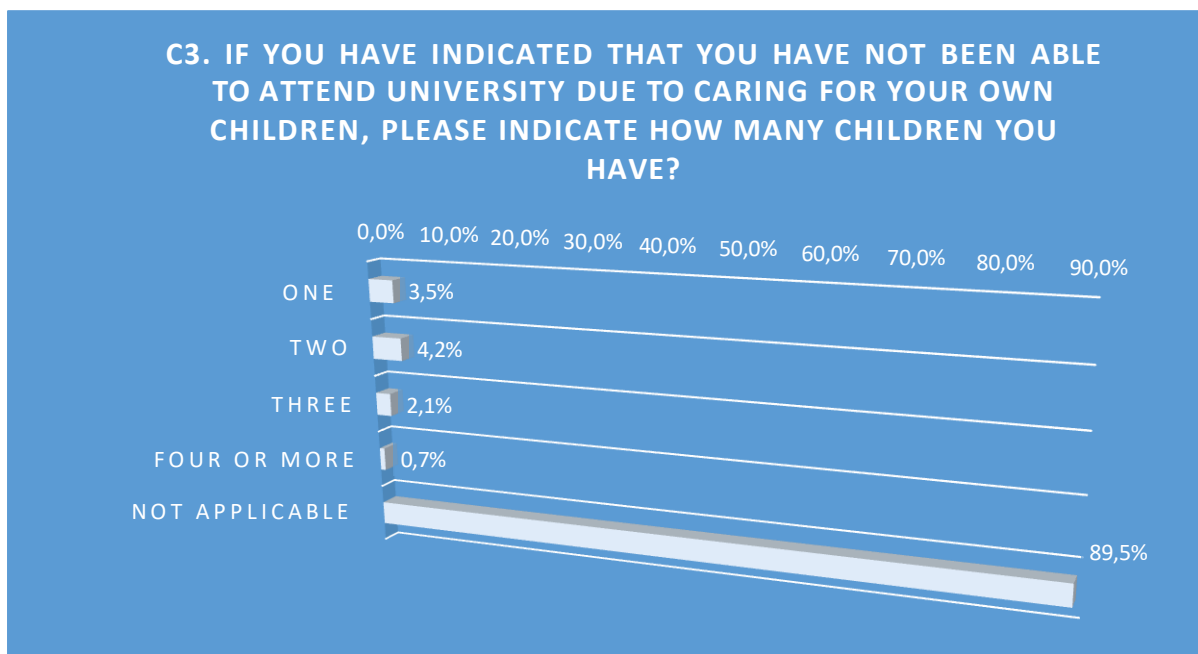


Figure 34. Diagram for the answers of the question “How many children you have?”

Almost all of participants indicated that they would prefer to be students. They are 93,7%. Other 6,3% wouldn't prefer to be a student.

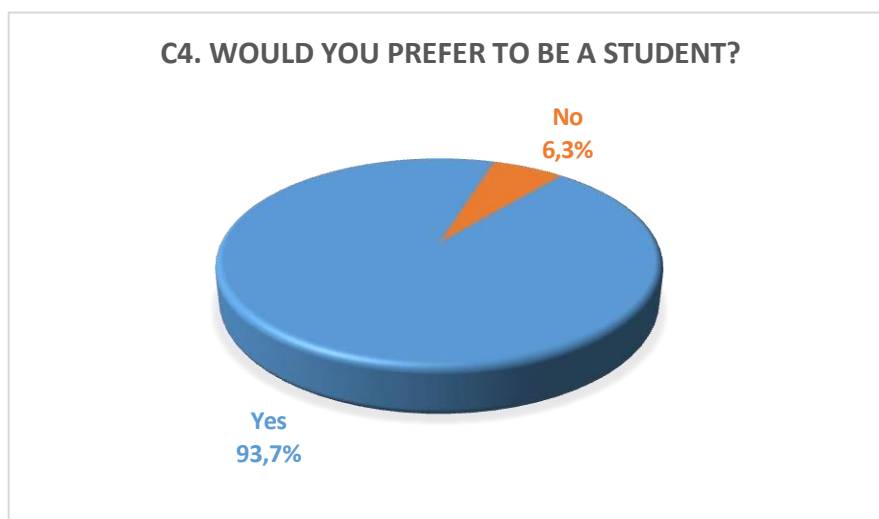


Figure 35. Diagram for the answers of the question “Would you prefer to be a student?”

Only 143 participants answered the question “Would you prefer to be a student?”. They would prefer to be students mostly because they like and want to study (38%). Another

significant reasons are learning new things (14%) and need of education (10%). Another answers can be seen at **Fig. 36**. Such as: for getting a good job, for better education, for learning new things, studying for free at some age, the parents, exploring, developing, for hanging out with friends. Some indicated that they prefer to be a student because students can change the society by their education in a good manner

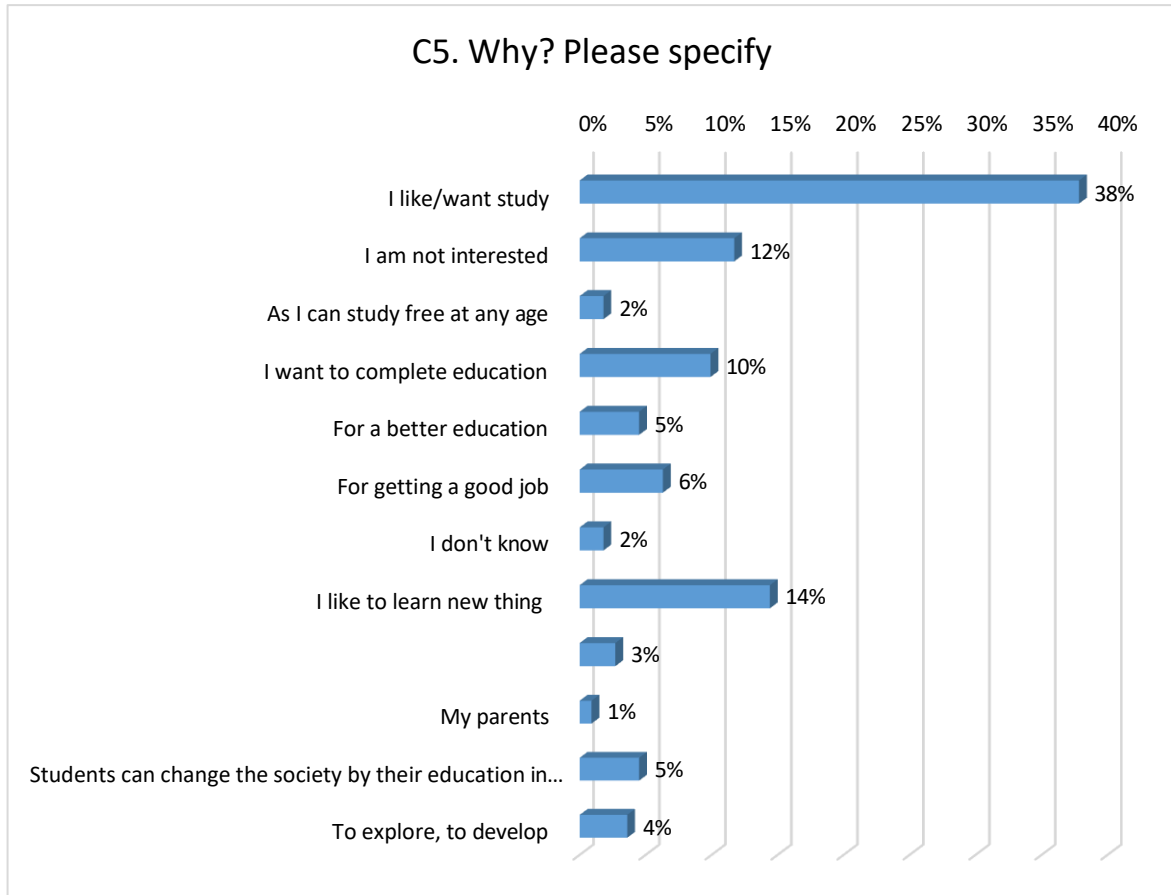


Figure 36. Diagram for the answers of question “Why would you prefer to be a student?”

Most participants (65.7%) indicated that they needed someone to help. The other 34.3% do not need help. This is shown at Fig.37. Only 143 participants answered this question.

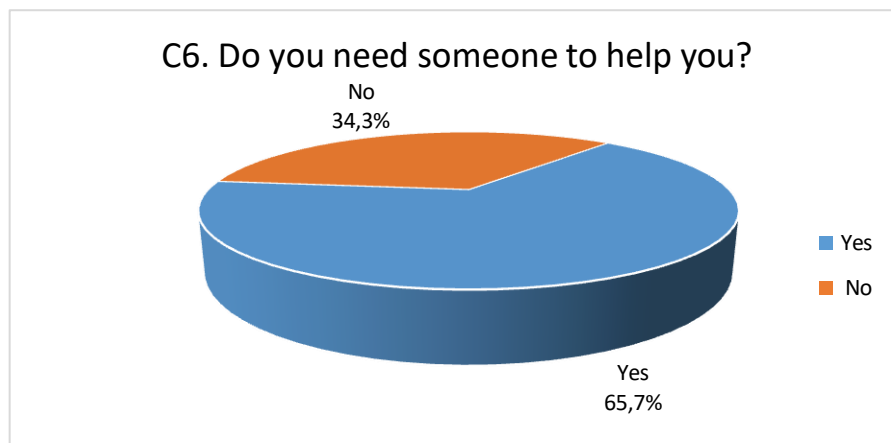


Figure 37. Diagram for the answers of question “Do you need someone to help

you?”

If they study at university, the participants would be supported mostly by their family – 28,9%, including the father, mother, brothers or sisters. About 17% expect support from family and at the same time from their friends and teachers. At **Fig. 38** the other answers are shown. Some indicated with answer yes that they can receive support, another pointed out with answer no (14,1%), that they couldn't receive such support. Some of the participants are independent but they are only 3,7%.

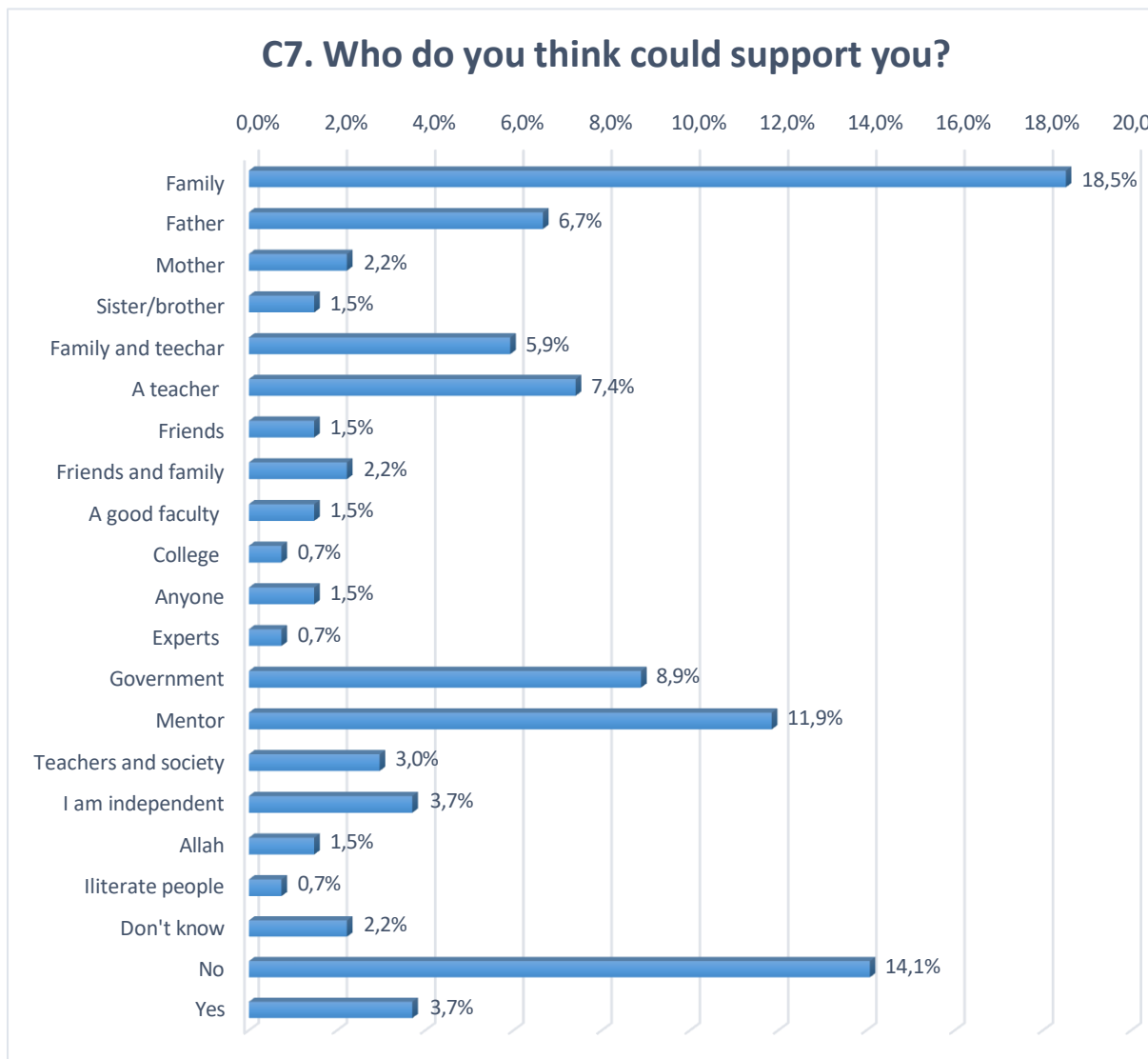


Figure 38. Diagram for the answers of the question “Who do you think could support you?”

4 ANALYSIS OF RESULTS FOR EXPERIENCE AND KNOWLEDGE

The participants describe their the level of awareness about Inclusion, Equality and Access for students with disabilities in Higher Education Institutions mostly that could be better (29,5%). Almost the same result 27,4% refers to the average level of awareness. 20% define it as insufficient. Only 6.8% describe their level of awareness as sufficient

and professional. 16.3% answered fairly good. All 424 participants answered this question and the results are shown at **Fig. 39**.

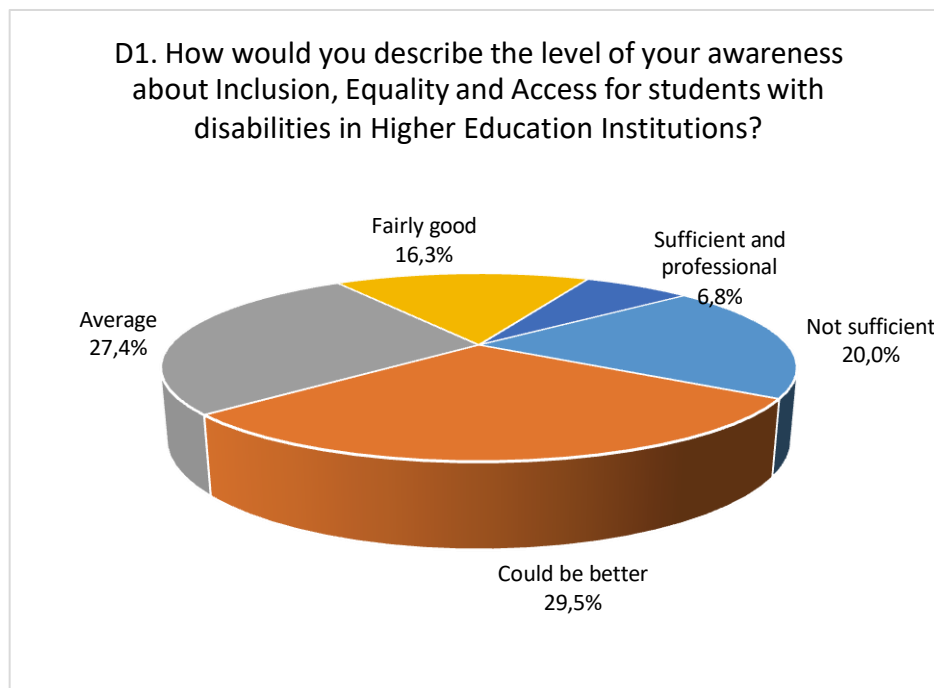


Figure 39. Diagram for the answers of the question “How would you describe the level of your awareness about Inclusion, Equality and Access for students with disabilities in Higher Education Institutions?”

Participants are best **fully acquainted** with the following tools and features (most answers are yes) (Fig. 40 A., the figure is divided into two parts Fig. 40. B. and Fig. 40. C.):

- Calculators - 64,8%;
- Touch screens - 55,1%;
- Tablets - 53,4%;
- Audio-recording -54,4%;
- Magnifying glasses - 48,9%;
- Wheelchair ramps - 48,2%;
- Hearing aids - 45,6%’
- Pencil grips - 44,7%’
- Walking canes - 42,1%’
- Switches - 42,6%;
- Human assistance - 40,9%;
- Screen readers for blind/visually impaired users - 39,2%;
- Audio-visual assistance - 40,4%;
- Voice control - 37,4%
- Voice output devices -35,5%.

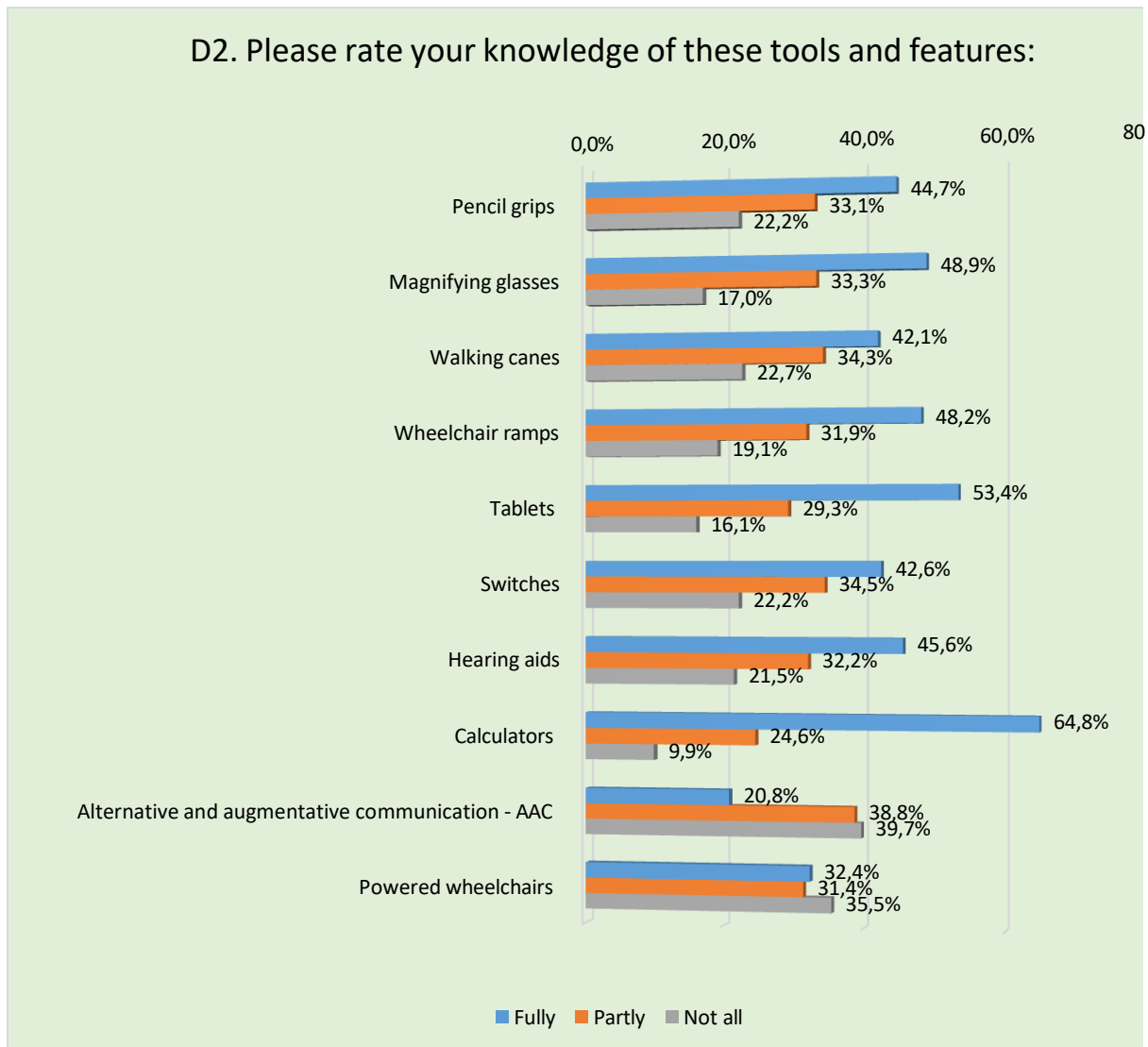


Figure 40. A. Diagram for results about knowledge about tools and features

Participants are not at all acquainted with the following tools and features (most answers are not at all but are almost as many as the answers “partly”):

- Browser extensions for colour blindness - 45,2%;
- Tactile devices for motion detection - 44,2%;
- Reading spectacles for colour blindness - 39,5%;
- Wheelchair lifts - 38,3%;
- Guide dogs for mobility and orientation - 41,8%;
- Microsoft’s Surface Pro - assistive technology, including text-to-speech software, word prediction and settings that allow screens to be adjusted for students with epilepsy and colour blindness - 42,1%
- Google Chromebooks audio-visual assistance - 39,2%.

They have **partial knowledge** about the following tools and features (the answers fully, partly and not at all are with the same distribution):

- Alternative and augmentative communication - AAC - 39,7%
- Powered wheelchairs - 35,5%;



- Eye recognition software - 34,5%
- Voice amplification -34%
- Specific technical examples - 37,6%
- Word prediction - 34%.

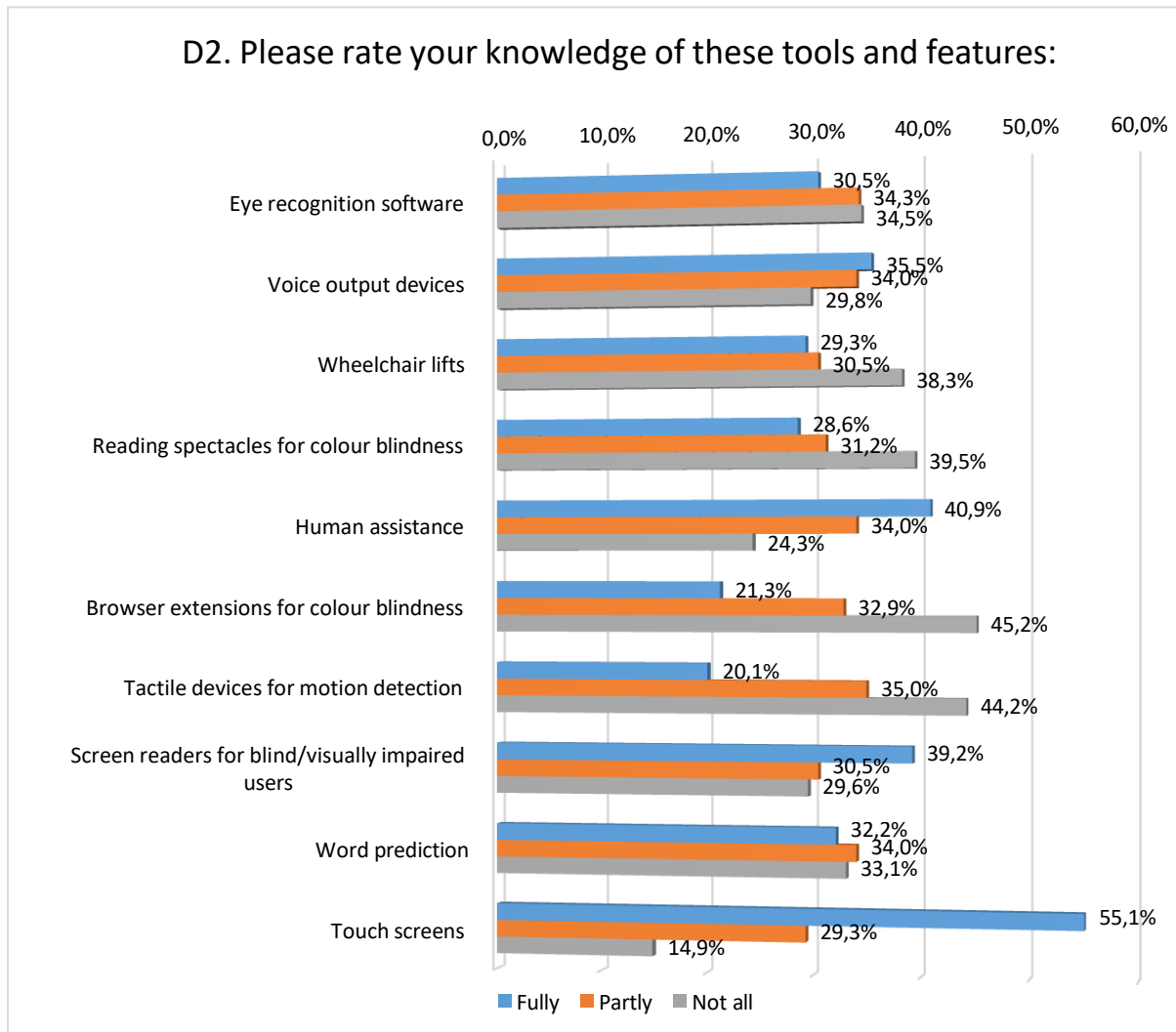


Figure 40. B. Diagram for results about knowledge about tools and features

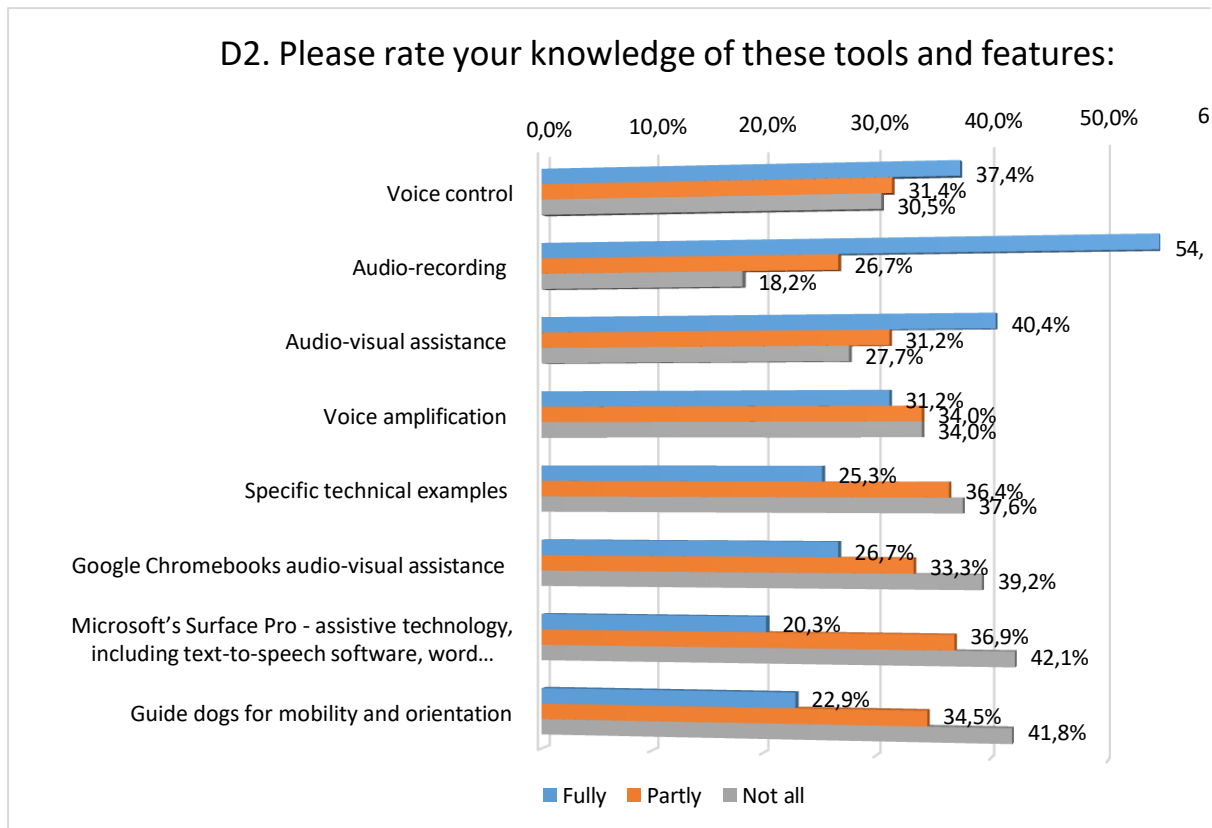


Figure 40. C. Diagram for results about knowledge about tools and features

The participants had to determine what types of assistive technologies do they consider to be the most useful for them. The analysis of results shows that the following AT are defined as most useful (most answers are “very useful”):

- Mobile Apps for inclusive Higher Education teaching - 58%;
- Machine learning for inclusive Higher Education teaching - 55,2%;
- Internet of Things (IoT) for inclusive Higher Education teaching - 54%;
- Artificial intelligence for inclusive Higher Education teaching - 53,6%;
- Virtual Reality (VR) and Augmented Reality (AR) for inclusive Higher Education teaching / Virtual Reality (VR) and Augmented Reality (AR) – 51,9%;
- Massive Open Online Courses for inclusive Higher Education teaching - 51,6%;
- Social Media in inclusive Higher Education teaching - 51,2%;
- Learning Analytics in inclusive Higher Education teaching - 50,6%;
- Big Data for inclusive Higher Education teaching - 49,8%
- Real-time simulation for inclusive Higher Education teaching - 49,3%
- Adaptive and assistive technologies for realization of the process of inclusive Higher Education teaching – 47,7%;
- Blockchain technology in inclusive Higher Education teaching - 43,6%;
- Gamification in inclusive Higher Education teaching - 39,9%;
- STEAM in inclusive Higher Education teaching - 41,3%.

It’s interesting that the most answers are very useful, and the least are “not useful”.

Some ATs need some development and the same number of people have indicated that they don't know the technology or tool. The distribution of answers is shown at **Fig. 41. A**

and Fig. 41.B.

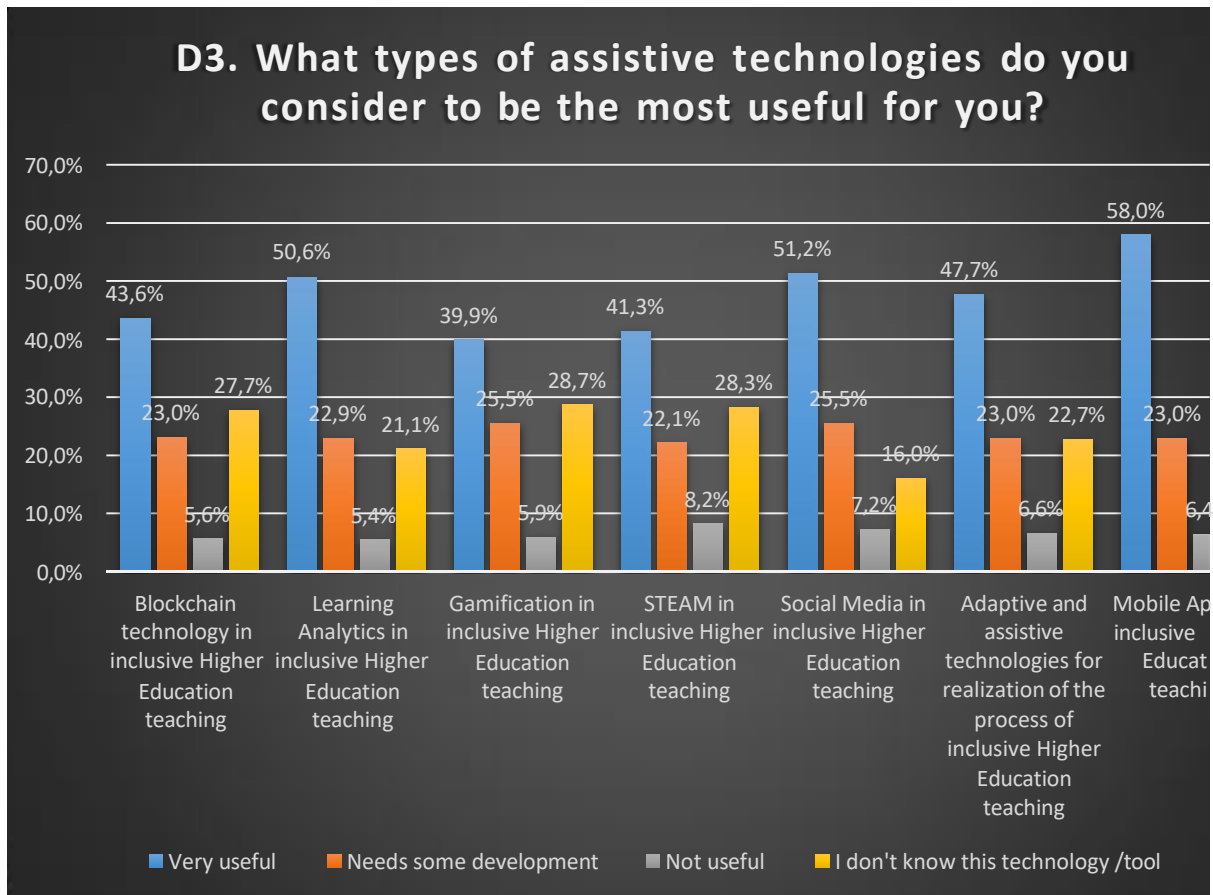


Figure 41. A. Diagram for answers of the question “What types of assistive technologies do you consider to be the most useful for you?”

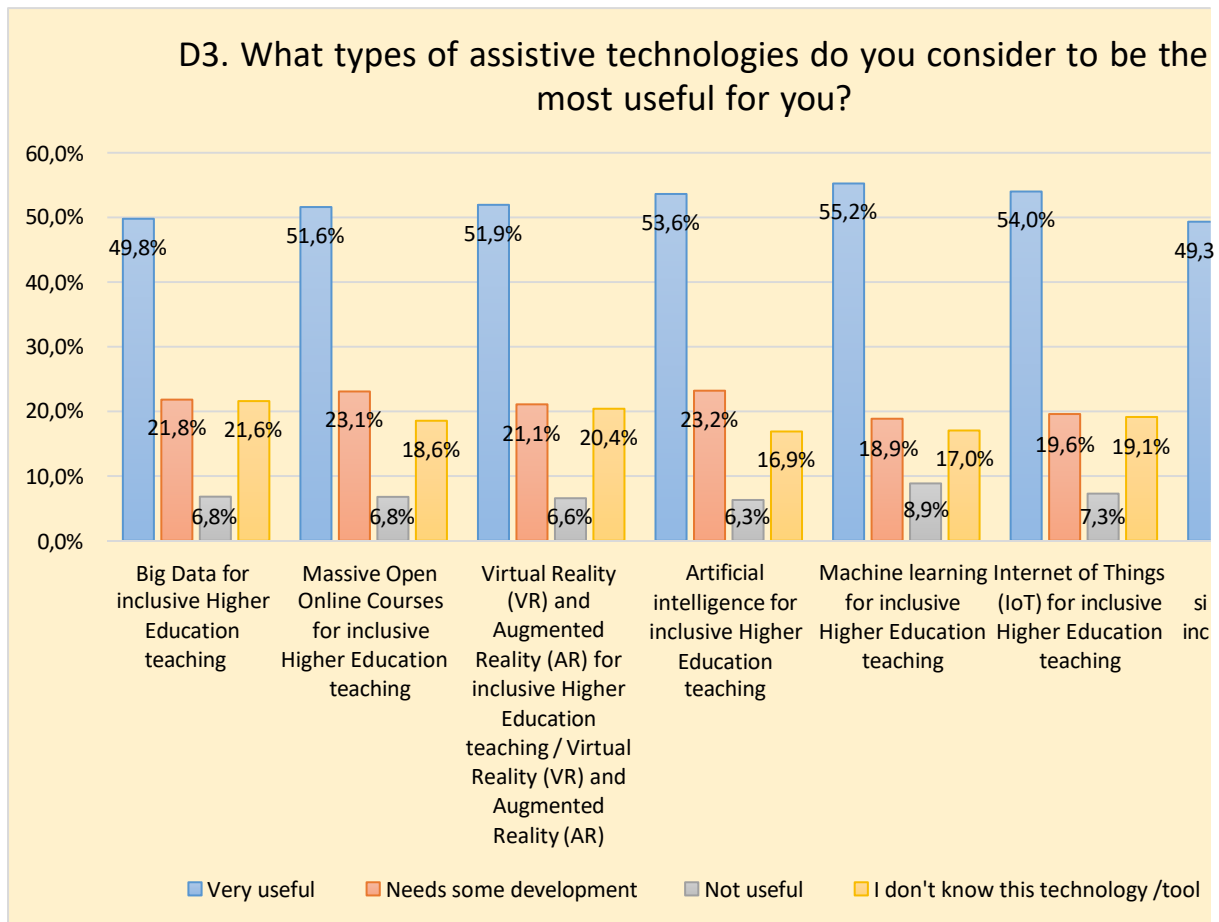


Figure 41. B. Diagram for answers of the question “What types of assistive technologies do you consider to be the most useful for you?”

According to the participants in Higher Educational Institutions, **the biggest challenge** is lack of technological devices. It is indicated by half of the participants - 50.7%. Almost as much indicated web accessibility – 47,4%. Just under half identified lack of support staff as a challenge – 40,3% and lack of universal materials - 38.9%.

About a quarter of the answers are for the challenges connected with lack of assistive technologies mostly for learning use, then for communication use and for mobility use as well as lack of blended learning/teaching approaches.

Less often the challenges are connected with:

- Etiquette and behaviour of teachers from Higher Educational Institutions in an electronic environment.
- Etiquette and behaviour of other students from Higher Educational Institutions in an electronic environment;
- Crisis situations in Higher Educational Institutions.

Some indicated an answer “others” – 29.7%.

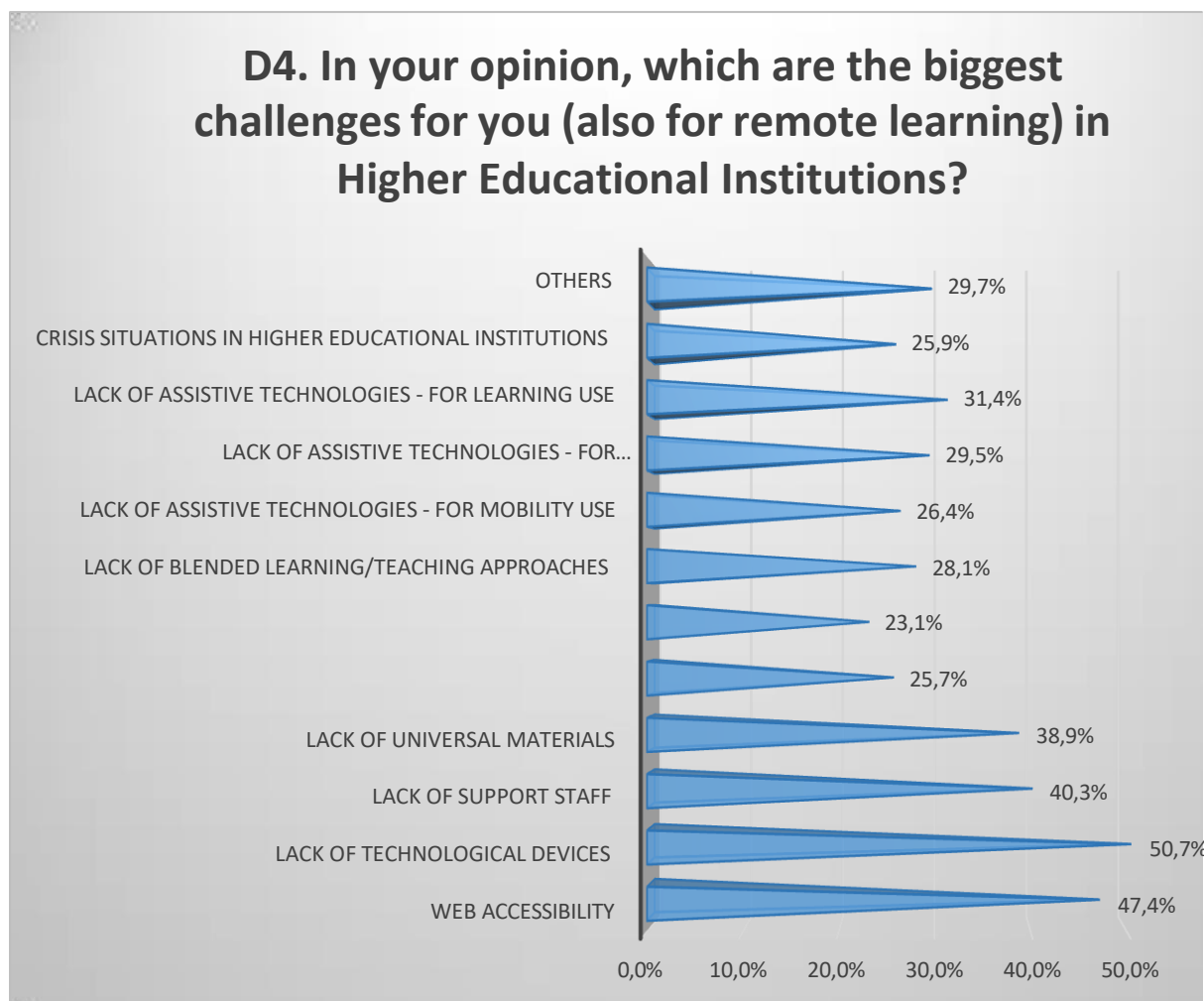


Figure 42. Diagram for answers of the question “Which are the biggest challenges for you (also for remote learning) in Higher Educational Institutions?”

A significant part of the participants in the study (72,4%) answered “no” to the question: “Do you have additional comments on the biggest challenges facing universities for students with disabilities? What in particular? ”A small part or 3.3% answered “yes” without commenting on what they mean. 2.1% do not know. Other challenges facing universities for students with disabilities are movement problems, understanding English, financial support, communication and etc.

Another participants have mentioned following challenges facing universities for students with disabilities:

- Deaf;
- Chances;
- Cultural events;
- The lift is not adjusted;
- Books for the visually impaired, such as PDF recorded audio books;
- Hard work;
- Infrastructure;
- Lack of awareness
- Lack of dictator to participate in the test



- Lack of Encouragement;
- Lack of environment for disabilities;
- Lack of proper guidelines for disabled student;
- Lack of support;
- Lack of Materials;
- Practical knowledge;
- To ensure safety of persons with disabilities in all educational institutions.
- Educational Institutions Policies To provide special facilities for the disabled.
- Better teaching methods must be developed through the intregation of moden tech tools like AI, and VR.
- Economic impact, lack of necessary disability friendly materials, positive attitude of teacher mentality
- Encouragement
- Ensuring safety of persons with disabilities in all educational institutions. Educational Institutional Policies to give special benefits to the disabled
- form A-z disability issue is everywhere. from the VC to sweeper know nothing about what to do with disable people/they very little.
- Friendly teaching
- have to start proper law & regulations about inclusive education in bangladesh and also trained up the teachers for this process
- I want every universities to provide good facilities to disabilities
- In equality, unfellowship
- In every university, suitable policies should be formulated for persons with disabilities.
- Lack of adequate equipment Audio writer is not available properly It is very difficult for everyone to study and moreover we do not have enough Perth chromosomes. Teachers do not understand how we can understand better if we are taught.
- Lack of advanced technology and no special library for the disabled. Lack of special arrangements for multimedia classes.
- Many questions have been answered, but I would say that there is a significant lack of access to integrated education in our universities.
- More information regarding the same
- Necessary technology, facilities, scholarships, need to increase the cooperative attitude of all
- Need special devices and others modern technological facilities
- Negligence from fellow students and teachers. Lack of comfortable environment and usable adapted machineries.
- Problem of movement and special help from other, lack of technologies
- Provide sufficient and useful inputs
- Ragging free environment for all the disability students.
- Shortage of study time
- Should develop the system
- start blended learning
- Teachers are not trying to teach us students with disabilities
- Teaching process could be improved
- Teasing is a main problem and dominating is also a big problem

- The education allowance does not cover all the expenses, we need scholarships
- The elevator has special facilities for everyone.
- The quality of education needs to be enhanced from the primary level
- The way we are treated is very degrading in a word. Why don't people think of us as human beings? Why are we human beings? We are also citizens of this country. We want to live in this society.
- Their environment and sustainability is the biggest challenge
- There are many obstacles
- There are no advanced species
- There are no specific policies for students with disabilities. There is no specific plan for students with disabilities.
- They should be supported in a larger extent
- Training arrangements as per environmental development requirements
- What has happened in my case is the lack of proper evaluation
- When going to university, they have to face obstacles on the way. They have communication problems, problems in the classroom, problems in studying in the library, as well as various administrative problems.
- Yes, there is lack of assistive technologies, no captioned phone calls for communication with teachers.
- Yes, there is. There is a lack of disability friendly environment. As a result, the education of persons with disabilities is hampered.
- Yes, website accessible Indian sing language
- Yes, I have suffering much in handwritten problem due to slow hand writing in exam Hall

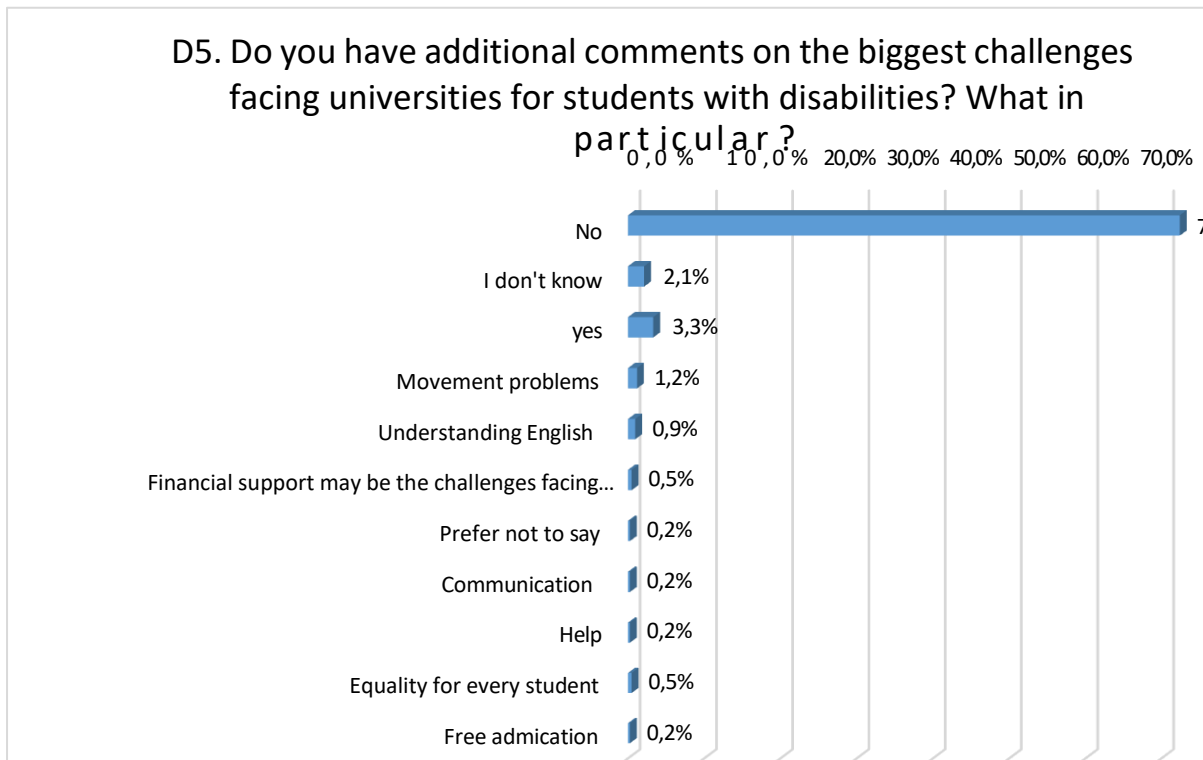


Figure 43. Diagram for results about knowledge about tools and features

The **Fig. 44 A.** shows the results for answers of question “What support do you need in the learning process and access to education?” and is divided into two parts **Fig. 44. B** and **Fig. 44 C.**

Interestingly, very few have indicated the proposed options as not important in the learning process and access to education. Most answers are for required and preferable.

Just over the half of participants believe that the following support is required in the learning process and access to education:

- electronic platforms and functionalities (E-teaching/E-learning) that support inclusive Higher Education teaching (64,6%);
- accessible presentations, data sheets, documents (64,1%);
- training on EdTech possibilities in inclusive education (64%);
- and information promoting inclusive education (63,9%);
- Remote access to specific assistive technologies (hardware or software) (63,7%).

There are almost as many answers for the following:

- Guidelines for different tools - 62,8%;
- Accessible Open Educational Resources/Massive Open Online Courses - 60,9%;
- Available solutions (odt to Braille, etc.) - 59,4%.

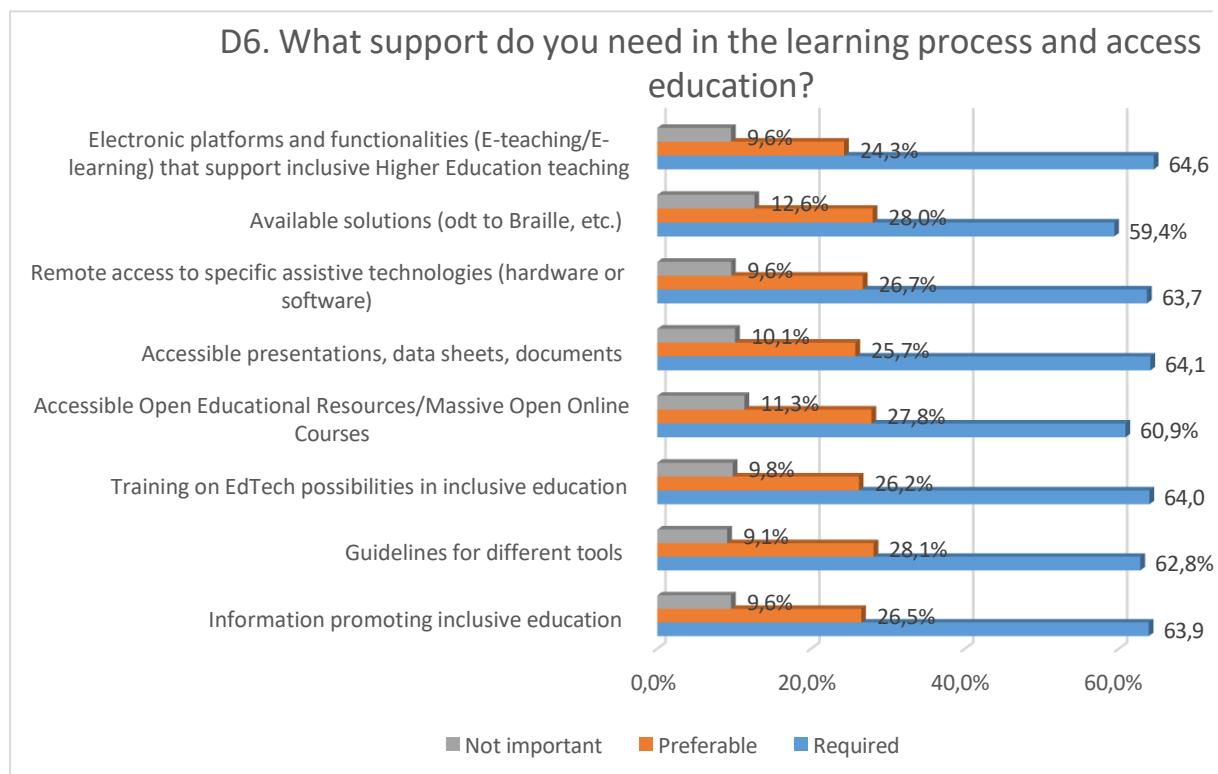


Figure 44. A. Diagram for answers of the question “What support do you need in the learning process and access to education?”

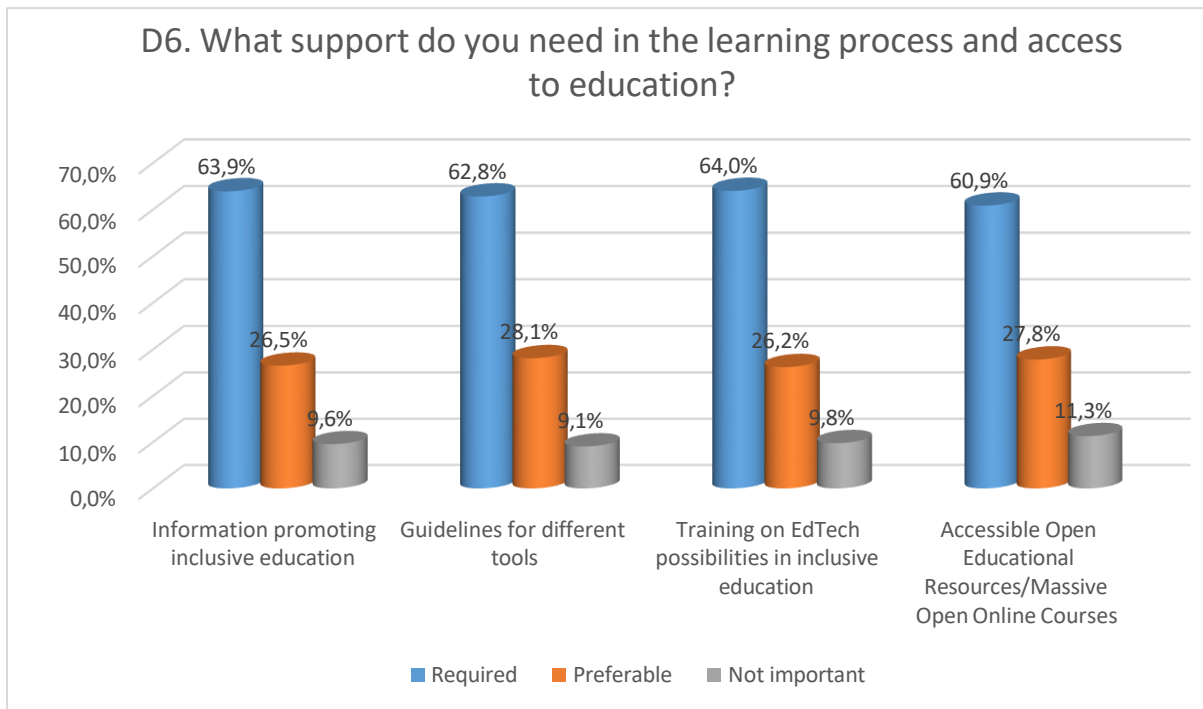


Figure 44. B. Diagram for answers of the question “What support do you need in the learning process and access to education?”

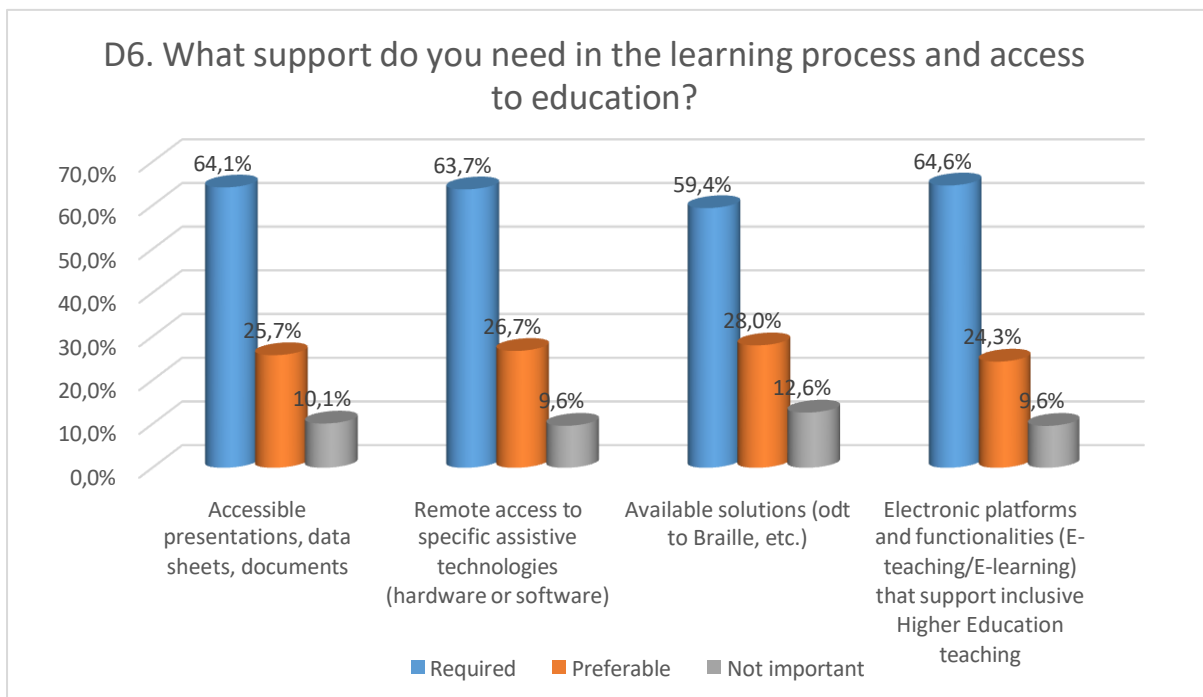


Figure 44. C. Diagram for answers of the question “What support do you need in the learning process and access to education?”

One significant part of participants (74,1%) wants to receive the analysis of this study. The other 25,9% are not interested.

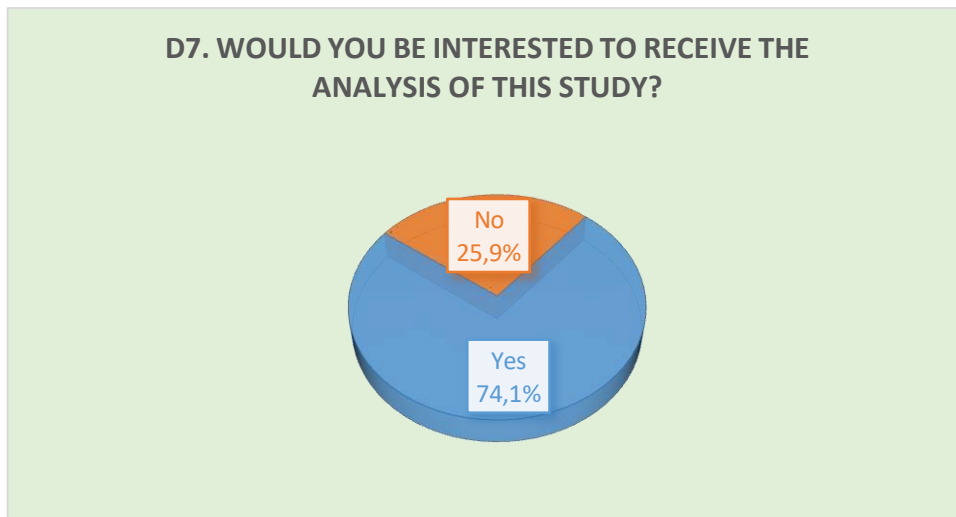


Figure 45. Diagram for results for the question “Would you be interested to receive the analysis of this study?”

5 Crosstabs

Chi-square test have been done for the results of questions “Do you have special educational needs” and “Do you study at university?”. The results are presented at **Fig. 46** and **Table 3**.

As can be seen from the obtained interest score of the survey itself, the respondents show civic and academic self-awareness and interest in the implementation of inclusive policies and inclusive practices in higher education.

The result for the self-determination of the respondents from the higher education institutions regarding their special educational needs is extremely interesting, especially for the answer "I don't know". The impression left by the obtained results is that the respondents are not quite aware of the concept of "special educational needs" (**Figure 46. and Table 3.**).

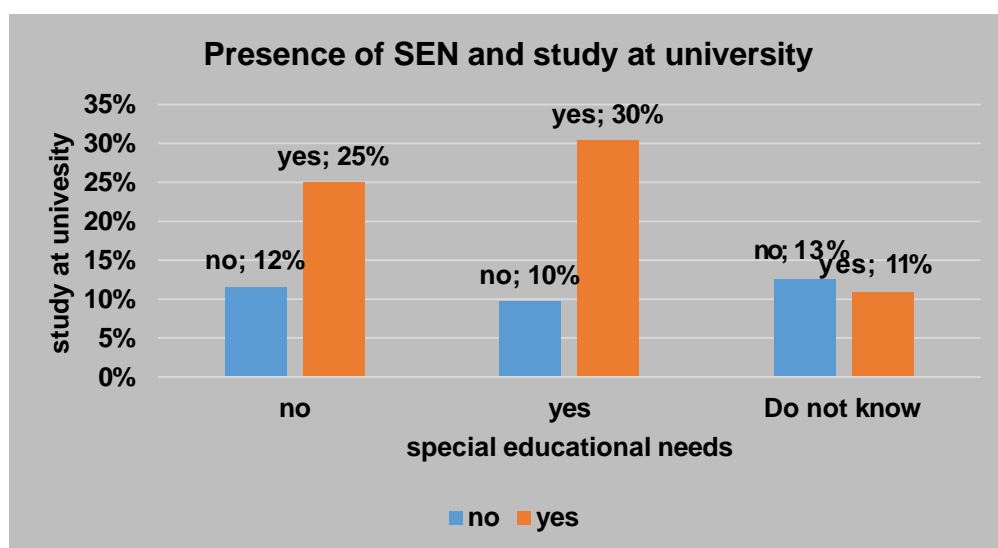


Figure 46. Diagram of results for presence of SEN and study at university

It turns out that 30% of those with SEN study at university. 10% of those who mentioned that they have SEN do not study at university.

		Do you have any special educational needs		
		No	Yes	Do not
Do you study at university?	No	12%	10%	13%
	Yes	25%	30%	11%

Table 3. Crosstab of presence of SEN and study at university

It is quite possible that some of the respondents understand "special educational needs" as for example "learning difficulties" or specific linguistic needs. Some of the respondents gave more than one answer, and this is evident from the total score, which is 101 percent. Undoubtedly, these hypotheses are subject to further verification.

At the same time, this result is neither unexpected nor surprising. According to a large-scale study by Ofsted (2010), there is "significant variation in the level of identification of the general category of Special Educational Needs" across England, highlighting that a pupil identified in one school may not be identified in another school. Not only is the identification rate highly variable in the schools surveyed (ranging from less than 5% to over 70%), but also this huge disparity can be fully explained by other factors such as socio-economic status, etc. "

As Black-Hawkins (2017) notes, "a focus on learner diversity is often too narrowly concerned with categorical approaches to identifying special needs and disabilities, and this can be problematic for a number of reasons. Categories and their associated labels are constructs that support a deficit model of learning or place the "blame" on the learner rather than promoting the exploration of an effective learning context. Categories oversimplify the richness and complexity of people's lives. Not only can the categories overlap, but there are huge differences between people identified as members of the same group."

Diversity also lies in special educational needs. Diversity is life itself.

6 INCLUSIVE POLICIES

The Shapiro-Wilk test was used to determine if results for scale inclusive policies are normally distributed. The results from analysis with Shapiro-Wilk test (Stat.=0,965, sig.=0,000<0,05) shows that the data significantly deviates from a normal distribution.

Table 4. Descriptive statistics

Total participants	minimum	maximum	median	mean	Std. Error of Mean	Standard deviation	skewness	kurtosis	quartiles
280	11	33	22	21.40	0.323	5.41	-0.082	-.575	17;22;25

The mean is 21.40 and standard deviation is 5.41. Minimum is 11 and maximum 33. The

skewness is negative sign which means that the results are slowly shifted to the high results but close to the mean as it is in interval from -1 to 1. The distribution of results is not normal. This means that the results for scale the inclusive policies are slightly above average but close to mean.

7 INCLUSIVE ENVIRONMENT

The Shapiro-Wilk test was used to determine if results for scale inclusive environment are normally distributed. The results from analysis with Shapiro-Wilk test (Stat.=0,971, sig.=0,000<0,05) shows that the data significantly deviates from a normal distribution.

Table 5. Descriptive statistics

Total participants	minimum	maximum	median	mean	Std. Error of Mean	Standard deviation	skewness	kurtosis	quartiles
280	4	20	11	10.81	0.226	3.78	0.2	-0.591	8;11;13

The mean is 10.81 and standard deviation is 3.78. Minimum is 4 and maximum 20. The skewness is positive signed which means that the results are slowly shifted to the low results but close to the mean as it is in interval from -1 to 1. The distribution of results is not normal. This means that the results for scale the inclusive environment are slightly under average but close to mean.

3 Conclusion

3.1. Teacher and administrative staff survey:

The data obtained are only preliminary results and researchers need to further analyse the situation taking into account the national context, as the traditions, financial situation and education levels of previous generations in a given country are also relevant for inclusive education, as they all interact and influence the extent to which the planned support measures will reach the target group. There are researchers who believe that the Western concept of inclusive education is not directly transferable to the educational environment in Asian countries and that specific solutions need to be found (Kalyanpur, 2020; Panicker, Agrawal & Khandelwal, 2018).

Differences in the data emerged when comparing the results for India and Bangladesh on academic staff understanding of working with students with special needs, with Bangladeshi lecturers more likely than their Indian counterparts to indicate that they had insufficient knowledge of working with this group of students.

Currently, it can be concluded that lecturers and administrative staff lack the necessary knowledge on inclusive education and this in turn can affect the provision of inclusive education, as also pointed out by several researchers who have analyzed the most important factors in the provision of inclusive education (Ahsan and Sharma, 2018; Ambia and Rahman 2021; Bodhi et al., 2022; Dongre, Sarin and Singhal 2022).

It is evident from the data that statistically more students with different special needs are in higher education than in India, but this data cannot necessarily be taken as evidence that the situation with inclusive higher education is better in Bangladesh compared to India, as the data shows that the study participants from India are more dispersed among cities of different sizes, whereas participants from Bangladesh are more from the national capital and the situation is probably different in other regional centres. The researchers think that there may be another reason for this distribution of the data: it is possible that countries have different definitions of what constitutes special needs and that this is why university staff in India reported fewer students with special needs than in Bangladesh.

The study found that participants were not familiar with the different technological tools and other types of assistance that can be used to support students with special needs, so there is a need for education to raise awareness of the different options.

Given that digitalisation enables both the use of digital learning tools to support students with disabilities to access learning resources remotely, the use of assistive technologies to support students in their everyday learning, there is a need to develop technological solutions that can be used in higher education and can improve accessibility and thus make higher education more inclusive. The development of such solutions is also one of the project's deliverables and in the next stages of the project, the researchers intend both to further analyse the factors that influence the extent to which inclusive higher education is provided and to propose different digital solutions to reduce the impact of special needs barriers on students' access to education.

3.2. Student survey:

Student respondents from HEIs in the study outlined trajectories of problems for inclusive education. The desired inclusive spaces are formed:

- lack of technological devices;
 - web accessibility;
 - lack of support from staff;
 - lack of universal materials;
 - lack of assistive learning technologies;
 - ethical and moral problems on the part of fellow students and staff;
- and other.

Similar to Lewis & Russell (2011) and Grenfell & Harris (2013), who note : "The students were assumed to be capable and competent in creating their narratives.", the assumption was made that the student respondents are most aware of their inclusion in the learning process and daily functioning. Hearing the student voice the irrevocably traces the solution of identified problems, which are barriers to the implementation of inclusive practices.

Undoubtedly, the project in its very conception has reflexively identified these lacks of inclusive practices and carries the charge of successfully implementing developed good inclusive practices from the European partner experience in higher education institutions in Bangladesh and in India.

In this context, the survey of student opinion is a reliable source both of discovering barriers to inclusion in higher education institutions and of identifying the strengths of both students and institutions. Inclusive education in higher education institutions is destined to succeed only when it relies on the strengths, the unique abilities of all students, faculty and administration, as well as the strengths and unique capabilities of the individual educational institution and the holistic inclusive view and application of holistic good inclusive practices in education.

Putting a focus on diversity with the phrase „Diversity is life itself“, each of us can perceive, understand, accept and incorporate the Other who is different, who has other motives, other goals, other behavior, and a different learning style. Otherness is a valuable resource and a valuable advantage. Otherness is embedded in every person and therefore inclusive education is for all who participate in the educational processes directly or indirectly.

The project *DiverAsia - Embracing diversity in ASIA through the adoption of Inclusive Open Practices* has committed itself to the ambitious, achievable task of implementing good inclusive practices in higher education from Europe in Bangladesh, and India. The results of both studies demonstrate that the mission is possible and feasible.

Reference

Teacher and administrative staff survey

Ahsan, T. and Sharma, U. (2018). Pre-service teachers' attitudes towards inclusion of students with high support needs in regular classrooms in Bangladesh. *British Journal of Special Education*, 45: 81-97. <https://doi.org/10.1111/1467-8578.12211>

Ambia, S. U., & Rahman, M. S. (2021). Challenges in primary level inclusive education in Bangladesh. *International Journal for Innovation Education and Research*, 9(11), 14-20.

Bodhi, R., Singh, T., Joshi, Y. and Sangroya, D. (2022). Impact of psychological factors, university environment and sustainable behaviour on teachers' intention to incorporate inclusive education in higher education, *International Journal of Educational Management*, Vol. 36 No. 4, pp. 381-396. <https://doi.org/10.1108/IJEM-02-2020-0113>

Bunbury, S. (2020). Disability in higher education - do reasonable adjustments contribute to an inclusive curriculum? *International Journal of Inclusive Education*, 24(9), 964-979. 10.1080/13603116.2018.1503347

Corby, D., King, E., Petrie, M., Reddy, S., Callan, A., & Andersen, T. (2022). Making a Case for the Inclusion of People with Intellectual Disabilities in Higher Education. *Disabilities*, 2(3), 415-427.

Das, A. and Shah, R. (2014). Special Education Today in India, *Special Education International Perspectives: Practices Across the Globe* (Advances in Special Education, Vol. 28), Emerald Group Publishing Limited, Bingley, pp. 561-581. <https://doi.org/10.1108/S0270-401320140000028025>

Dongre, A., Sarin, A. & Singhal, K. (2022). Barriers in translating mandate for inclusion in practice: evidence from India's right to education act, *International Journal of Inclusive Education*, DOI: 10.1080/13603116.2022.2135781

European Agency for Special Needs and Inclusive Education. (2015). Agency position on inclusive education systems.

Faura-Martínez, Ú., & Cifuentes-Faura, J. (2022). Building a dynamic indicator on inclusive education in higher education. *European Journal of Special Needs Education*, 37(4), 690- 697.

Fayaz, R. (2019). Inclusive Education In India: Concept, Need And Benefits. *International Journal of Advanced Multidisciplinary Scientific Research (IJAMSR)* ISSN: 2581-4281, 2 (3), March, 2019,# Art, 1318, 71-81.

Grimes, P., et al., (2021) Disability-Inclusive Education Practices in Bangladesh, United Nations

Children's Fund Regional Office for South Asia, Kathmandu.

Griskevica, I. et al. (2022). Assessment Requirements of Disabled Students in Higher Education. In: Miesenberger, K., Kouroupetroglou, G., Mavrou, K., Manduchi, R., Covarrubias Rodriguez, M., Penáz, P. (eds) *Computers Helping People with Special Needs*.

ICCHP-AAATE 2022. Lecture Notes in Computer Science, vol 13342. Springer, Cham.
https://doi-org.datubazes.lanet.lv/10.1007/978-3-031-08645-8_41

Jaegler, A. (2022). How to Measure Inclusion in Higher Education: An Inclusive Rating. *Sustainability*, 14(14), 8278.

Kalyanpur, M. (2020, August). Disrupting the narrative of universality of inclusive education: The new marginalization of low-income, English language learners in India. In *The Educational Forum* (Vol. 84, No. 4, pp. 296-308). Routledge.

McCabe, L.E.; Hall, C.G.; Carter, E.W.; Lee, E.B.; Bethune-Dix, L.K. (2022) Faculty Perspectives on the Appeal and Impact of Including College Students with Intellectual Disability. *Inclusion*, 10, 71-86.

Moriña, A. (2017). Inclusive education in higher education: Challenges and opportunities. *European Journal of Special Needs Education*, 32(1), 3-17.

Nīmante, D., Baranova, S., Stramkale, L. (2021). The University Administrative Staff Perception of Inclusion in Higher Education. *Acta Paedagogica Vilnensia*, Vol 46., 90-104.

Panicker, A., Agrawal, R. K., & Khandelwal, U. (2018). Inclusive workplace and organizational citizenship behavior: Study of a higher education institution, India. *Equality, Diversity and Inclusion: An International Journal*.

Shopland, N. Brown, D. J., Daniela, L., Rūdolfā, Ar., Rūdolfā, As., Rahman, M.A., Burton, A., Mahmud, M. & van Isacker, K. (2022). Improving Accessibility and Personalisation for HE Students with Disabilities in Two Countries in the Indian Subcontinent - Initial Findings. In: Antona, M., Stephanidis, C. (eds) *Universal Access in Human-Computer Interaction. User and Context Diversity. HCII 2022. Lecture Notes in Computer Science*, vol 13309. Springer, Cham. https://doi.org/10.1007/978-3-031-05039-8_8

Singal, N. (2019). Challenges and opportunities in efforts towards inclusive education: Reflections from India. *International journal of inclusive education*, 23(7-8), 827-840.

Stentiford, L. & Koutsouris, G. (2020). What are inclusive pedagogies in higher education? A systematic scoping review. *Studies in Higher Education, Latest Articles*. 10.1080/03075079.2020.1716322

Taneja-Johansson, S., Singal, N., & Samson, M. (2021). Education of children with disabilities in rural Indian government schools: A long road to inclusion. *International Journal of Disability, Development and Education*, 1-16.

United Nations Educational, Scientific and Cultural Organization. (1994). *The Salamanca statement and framework for action on special needs education*.

World Education Forum. (2000). *The Dakar framework for action. Education for all: Meeting our collective commitment*. Dakar: World Education Forum.

Reference

Student survey

Black-Hawkins, K. (2017). Researching inclusive classroom practices: The framework for participation. In L. Florian (Ed.), *The sage handbook of special education* (2nd ed., 389- 404). London: Sage.

Education 4.0 (<https://www.jisc.ac.uk/education-4-0>).

Grenfell M.& V. Harris (2013). Making a difference in language learning: the role of sociocultural factors and of learner strategy instruction. *The Curriculum Journal*. 24(1), 121-152, doi: [10.1080/09585176.2012.744326](https://doi.org/10.1080/09585176.2012.744326)

Ivanova, T., Levterova - Gadjalova, D., Tsokov, G. & N. Mileva (2021). Challenges for Inclusive Higher Education. *Human, Technologies and Quality of Education*. 434 – 445. doi:<https://doi.org/10.22364/htqe.2021.32>

Lewis, S., & Russell, A. (2011). Being embedded: A way forward for ethnographic research. *Ethnography.*, 12(3), 398-416. doi:<http://dx.doi.org/10.1177/1466138110393786>