### IncEdu ProjectMU

### Masaryk University Visit to Sri Lanka

### (29thNovember - 3rd December 2021)

#### Report

From 29<sup>th</sup> November to 3<sup>rd</sup> December 2021, a team from the Teiresias Centre of Masaryk University visited the IncEdu partner institutions in Sri Lanka. The purpose of the working visit was to learn about the organization of teaching in Sri Lankan universities with regard to the overall accessibility of the curricula for students with specific needs, the challenges of individually tailoring studies to these individuals, and the possibilities of achieving universal educational design in Sri Lankan universities.

#### A. Participants of the meetings

The Masaryk University team consisted of:

- 1. Dr. Petr Peňáz, Director of the Teiresias Centre
- 2. Ing. Boris Janča, Secretary and Economist of the Teiresias Centre
- 3. Ing. Svatoslav Ondra, Head of Special IT Department
- 4. Mgr. Michaela Hanousková, Head of the Library and Publishing Department

The team of University of Peradeniya (29th Nov - 1st Dec 2021) consisted of:

- 1. Snr. Prof. Anoma Abharayatne, IncEdu Project Coordinator (Department of Economics and Statistics)
- 2. Dr. Samanmala Dorabawila (Senior Lecturer, Department of Economics and Statistics)
- 3. Dr. Leena Seneheweera, Academic Coordinator of the Special Needs Resource Unit (Senior Lecturer, Department of Fine Arts)
- 4. Ms. Niroshini Senevirathne (Probationary Lecturer, Department of Fine Arts)
- 5. Prof. Sakunthala Yatigammana Ekanayake (Professor, Department of Education Faculty of Arts)

The project teams of Masaryk University and University of Peradeniya were received by Prof. Meegahalande Durage Lamawansa, Vice Chancellor of the University; meetings with the heads of the departments of the Faculty of Arts were chaired by Dr. Prabath Ekanayake, Dean of the Faculty of Arts (Senior Lecturer, Department of Education); meetings with teachers, representatives of the libraries, and technical and administrative staff of the school were chaired by the team of Prof. Abharayatne as the project coordinator.

The team of Mrs. Indu Gamage, IncEdu Project Coordinator (Senior Lecturer, Department of English Language Teaching) was a partner of Masaryk University representatives at the **University of Ruhuna** (3<sup>rd</sup> December 2021). The project teams of Masaryk University and University of Ruhuna were received by Snr. Prof. Sujeewa Amarasena, Vice Chancellor of the University of Ruhuna. Prof. Upali Pannilage, Dean of the Faculty of Humanities and Social Sciences, held discussions with the Heads of the Departments of the Faculty of Humanities and Social Sciences, as well as with student advisors and representatives of students with specific requirements.

The coordinators of the remaining two partner schools - Sri Lanka Technological Campus and Eastern University - attended the final project meeting on Friday 3rd December 2021.

The Masaryk University team also met with principals, teachers and pupils of two special schools:

- 1. Senkadagala Deaf & Blind School (Srimath Kudarathwatta Mawatha, Kandy), founded in 1965;
- The Ceylon School for the Deaf & Blind (521, Galle Road, Rathmalana), founded in 1912 (Ms. M. P. Shanika.Perera, School Principal).

Other institutions visited were:

- 1. Braille Press Education Department (Gammana Road, Maharagama)
- 2. Sri Lanka Council of Visually Handicapped Graduates (694/1D Galle Road, Land, Moratuwa; online meeting only)
- 3. Representatives of ministries guaranteeing inclusive education in Sri Lanka (Dr. Punyadasa Kuruppu, **Ministry of Education**, Director; Dr. Asiri Hewamalage, Public Health Bureau, **Ministry of Health**, etc.)

#### **B.** Objective of the visit

The aim of the working visit was to **learn about the practical organisation of teaching in** Sri Lankan public universities, with particular reference to the accessibility of studies for people with disabilities, in order to **assess what types of assistive and information technologies can make the existing process more efficient at present and in the future**.

The MU team focused on the following aspects of the teaching process:

- 1. Universal educational design:
  - general physical accessibility of the campus, dormitories, canteens, toilets, classrooms and other key workplaces;
  - general accessibility of information systems and e-learning systems.
- 2. Admission of students, their registration, boarding, accommodation, leisure activities.
- 3. Setting up the semester timetable, choosing the medium (language of instruction).
- 4. Functional diagnosis of specific requirements and informing teachers or other staff of specific needs of students.
- 5. Transportation from residence to classroom location, movement around campus, personal assistance.
- 6. Types of study materials (text made up of alphanumeric characters of different national alphabets, symbols for different scientific disciplines, graphs and diagrams, maps, pictures and photographs), responsibility for their accessibility (teacher, library, SNRU staff, technical staff, classmates).
- 7. Types of audio communication in education (human speech, singing, music, sound signals), responsibility for their accessibility.
- 8. Didactic practices towards different groups of students with disabilities, individual adjustment as a complement to universal design.

- 9. Specifics of online learning, responsibility for the accessibility of the audio and video layer of the videoconference.
- 10. The process of preparation for courses and tests; examination and assessment.

#### C. General findings

In all the areas mentioned, there are several general features, there are some general findings that distinguish the Sri Lankan educational process from the European one:

- 1. Traditional Sri Lankan society, influenced predominantly by Theravada Buddhism (70% of the population), is very tolerant, with a strong sense of social responsibility and harmony, family and collective cohesion. The role of parents and friends in overcoming obstacles is much greater than in Europe, overriding individual solutions and the need for personal independence.
- 2. Harmony, social cohesion and tolerance do not go hand in hand with social homogeneity Sri Lankan society is characterised by a high economic and social differentiation, a strong sense of social hierarchy, and a conservative respect for the authority of the state, religion, school and family.
- 3. The position of people with disabilities is dignified, but rather dependent, given the above points; persons with disabilities are generally more passive than in Europe. The status quo is taken for granted and not worth changing; the need for personal autonomy and social competition with mainstream people are not common. Hidden disabilities (specific learning disabilities, autistic spectrum disorders, psychological difficulties) are not yet perceived as disabilities.
- 4. The society is linguistically and religiously divided, with the experience of the recent civil war clearly felt. There is a determination to fully respect the three main languages (Sinhala, Tamil and English) and the four main religions (Buddhism, Hinduism, Islam and Christianity). This commitment is strong, but educational practice presents a number of organizational complications that are difficult to resolve. A glaring fact is the contradiction between the stated aspiration to be fully bilingual or trilingual and the fact that many people, particularly those of lower social status and those with disabilities, do not feel confident in English and use it minimally. This last phenomenon is reminiscent of the situation in Southern and Eastern Europe. Although many people are dependent on their native language, there is no tradition of interpreting and no interpreters are available.
- 5. The use of assistive and information technologies divides societies more than in Europe and it is on average less common than in Europe, which has three causes: (i) social cohesion (see point 1 above) leads to a natural reliance on human assistance, as opposed to the European need for individual autonomy that technology can offer; (ii) social differentiation (see point 2 above) makes technology unavailable to some students; (iii) conservative respect for the traditional status quo makes technology less prestigious.

### **D.** Specific findings

By analysing the observations of the <u>above mentioned sub-aspects of the teaching process</u>, the MU team arrives at the following working conclusions, which they intend to use as a basis for the training of Sri Lankan university staff:

- 1. The sense of universal design should be improved because its principles are not consistently followed even in new buildings. The existing campuses have a complex structure in order to reflect the beauties of nature, in a difficult terrain, with variable path quality. There are very few accessible toilets, and they do not meet technical parameters required in European Union. Elevators are also few in number, and occasional ramps have an incline that requires a personal assistant. Information and e-learning systems mostly play a limited role compared to Europe. The inaccessible design of the lower levels of education makes it virtually impossible for students with disabilities to apply for courses other than humanities at any given time, as they cannot go through the educational process in science and engineering.
- 2. The admissions process is in the hands of the University Grants Commission. It is based on the results of the A-level examination, which is the responsibility of the Department of Examinations. At the moment, universities do not obtain information about the specific requirements of the applicant or incoming student, as UGC only offers very general information about the type of disability, not a functional diagnosis. In the case of students with disabilities, only a small number of students apply on the basis of A-level results in the humanities (see previous point), as the conservative mode of teaching essentially prevents students with more severe disabilities from achieving sufficient results; in the case of sign language users, passage through the education via interpreting or STTR is not possible at all. Therefore, there are positively discriminatory quotas for applicants with disabilities, but these quotas are not set on the basis of functional diagnosis and assessment of the available capacity of service providers at a given school. Rather, the intention behind the faculty's decision to increase the quota is political: to profile the school as inclusive.
- 3. The compilation of the semester timetable is in the hands of the Dean's Office and is done largely manually, as well as its publication. The choice of language of instruction (called medium) at this stage is made at the discretion of the Heads of Departments, according to the number of registrants studying in that medium and the availability of teachers able to teach in the required medium. However, for other specific requirements (related to deafness, blindness), such adaptation of the timetable and medium does not take place, but is done on an occasional additional basis at a completely individual level.
- 4. Functional diagnosis of students' specific requirements is not actually carried out. The UGC proceeds only with a framework information about the existence of a visual, hearing or motor disability. Further specification is done individually, not on the initiative of the school and not as a systemic assessment. Similarly to many European universities, students with a disability have an option to get in touch with a pedagogical counselor (at the University of Peradeniya with the SNRU academic coordinator) and to seek solutions, usually with the help of volunteers and/or parents. Information about the specific needs of individual students which is forwarded to teachers and other staff is very limited and rather occasional at this time. SNRU is preparing a general guidance document for teachers.
- 5. Transportation from residence to classroom location, movement around campus, and personal assistance to students with disabilities is provided by volunteers and family if needed. While accommodation and meals are traditionally provided by the university and are therefore not left to the initiative of students and families, in the case of transport the school has no organisational involvement.

- 6. The types of study materials present a problem from a technical point of view, as the traditional way of working relies on paper distributed manually (hard copies) and supplemented by a teacher presentation (MS Powerpoint). It may need some training to be sure that all teachers are aware of whether they are working with text, symbols or graphics, what technological process they are using to create their documents and what criteria should be applied to check the accessibility of a document (existence of a text layer, unicode fonts for Sinhala, Tamil and English, MathML for mathematical formulae, etc.) or to be tactilely printable. This state of affairs can only be changed by gradually increasing computer literacy. Because of the complete decentralization (documents are often distributed physically by the teacher, by an e-learning environment, and to a lesser extent by the library) and because of the huge variation between teachers, it is difficult at the moment to determine the volume of documents that on average are required to complete a semester-long undergraduate course. As far as charts, diagrams, maps and pictures are concerned, this is a serious problem in relation to the visually impaired community, and a national one: the Braille Press Education Department, following the decision of the Ministry of Education, does not offer tactile graphics to schools, which therefore rely on verbal description and memory alone. According to the Ministry's guidelines, geometry and geography are omitted from the curricula for blind pupils, with the explanation that, for technical and financial reasons, it is not possible in inclusive education to ensure that tactile graphics are available according to the needs of the teacher or pupil. Although this is a flawed strategic decision based on invalid assumptions, as acknowledged by the school and ministry representatives contacted, it is not easy to change this situation, as the use of graphics presupposes a community of blind people with sufficient graphic literacy from childhood. From published sources (*World Braille Usage*, 3rd Edition, Washington: UNESCO 2013, pp. 132-134), it is clear that there are four standardised codes for written communication of the blind in Sri Lanka: Sinhala Literary (contracted), Tamil Literary (contracted), English Literary (contracted) and Nemeth Code for Mathematics and Science, all of them supported by the Duxbury software that has been chosen by Sri Lankan universities for the computer Braille typesetting. Teachers, library representatives, SNRU staff and technical staff contacted during the visit expressed interest in increasing their awareness of both the production of accessible electronic documents, of computer-printed Braille texts and tactile graphics, on condition that they will be trained (either directly at MU in Brno or subsequently by trainers who will attend the Brno course).
- 7. The types of audio communication in education (human speech, singing, music, sound signals) present a similar problem to the types of learning materials. There is a lack of awareness of the responsibility for accessibility of sound - people with hearing impairment are expected to fully compensate for their disability with hearing aids or their ability to lipread, without there being organisational measures in place to guarantee the lipreading in the period of compulsory masks and videoconferences. Even special schools for the deaf require the compulsory wearing of masks (instead of transparent shields), which makes it impossible not only to lipread but even to use sign language. The sign language standard used in the country is Sri Lankan Sign Language (SSL), commonly confused with British Sign Language because of the close affinity of the two languages. Local dialectal differences are not caused by the spoken language the deaf person is surrounded by or spoken by his family (Sinhala, Tamil, English), but rather by the tradition of the special school he attended. However, the role of sign language is much smaller than in Europe, teachers use sign supported language and signed language rather than sign language, and the use of natural sign language is left to the pupils in their free time, without being thoughtfully cultivated by the school itself. With the exception of Rohana Special School, which is in conjunction with a team that has been trained by the Asia Pacific Sign Linguistics Research and

Training Program, the teaching aids of special schools tend to consist in finger alphabet charts of the local languages and printed dictionaries of the various SSL signs; there are no dictionaries or grammars published online as videos, just as there are no sign language interpreters except for state television and interpretation for central government purposes. There does not seem to be any specific methodology to enable sign language users to acquire written form of spoken languages either, which is why it is rare to find graduates of special schools for the deaf who were able to complete advanced level secondary education in order to study at university. Current university students with hearing disability are hard-of-hearing, who compensate for their impairment with hearing aids or lipreading. Speech-to-text reporting or video captioning as a service does not actually exist, although in an atmosphere of linguistic complexity due to different native languages it would be a useful service to all.

- 8. Didactic practices towards particular groups of students with disabilities are at the moment the know-how of parents, special educators, partly volunteers among fellow students they are not a part of the general awareness of academic staff. Individual adjustment as a complementary supplement to Universal Design does not work basically because there is no awareness of it and therefore nothing to complement it, partly because there is a lack of know-how and uncertainty as far as dividing students according to their specific needs is concerned even special educators hesitate to consider whether separate teaching of students with different disabilities does not violate the principles of inclusive education. However, a very promising starting point is the existence of motivated special educators and art education specialists (especially at SNRU in Peradeniya) who, together with volunteers, are ready to compensate for the lack of AT/IT with art therapy procedures, a very thoughtful and effective practice given the local tradition. For the same reasons, the interest of sports instructors in providing sporting opportunities for students with disabilities is extremely valuable, given that sports facilities at the University of Peradeniya, for example, are of an extremely high standard.
- 9. When it comes to online learning (usually Zoom), it is largely marked by all of the above: the lack of laptops among students leads to the fact that the usual device on which a student watches a videoconference is a mobile phone, with all the drawbacks and limitations that this device brings compared to a personal computer. The sound and image quality is very poor, the speaker's lips cannot be read, there are no subtitles, many key elements of videoconferencing cannot be used, and often the learning documents that the student has to work with are only offered as screen sharing, i.e. as images, not as text. Responsibility for the accessibility of the audio using subtitles and the visual layer using text is absent, the lack of these elements is not perceived as a fault of the conference organiser.
- 10. The usual exercises or didactic tests during semester teaching and the everyday evaluation of these tests have not yet been revealed. The final assessment of semester courses is done through the central examination committees of the individual faculties, to which teachers send their test assignments. According to the central examination schedule, the committees then summon the students to the examination rooms where they present the assignments. The student manually writes or draws up the solution on paper, the examination board anonymously forwards it to the teachers who grade the results and the committee finally publishes the grades. In the case of students with special needs, the current situation offers the possibility of extended time, a personal assistant (reader, scribe). Notes in Braille, whether produced on a mechanical machine or on a slate, are actually for the student alone, as universities do not have trained staff who can read tactile documents if necessary, the committee relies on the student or on official

transcription through the Braille Press Education Department. At the University of Peradeniya, SNRU is already being offered as an examination room, fulfilling the original intention.

#### E. Recommendations

The above-mentioned conclusions were discussed during the final wrap-up session at the Faculty of Humanities and Social Sciences of the University of Ruhuna, chaired by Prof. Abhayaratne. The following course of action was proposed during that session to prepare for the training of Sri Lankan university professionals to be held at MU in the spring of 2022:

- 1. First and foremost, the process of purchasing technology needs to be completed so that it is clear at the time of training what technology the staff of Sri Lankan schools are actually expected to work with.
- 2. It is also necessary to divide the trainees into groups according to their roles, e.g.:
  - teachers who are learning to prepare their own accessible learning materials;
  - service providers learning to make existing documents or processes accessible;
  - counselors who learn to help students work effectively with existing materials;
  - technicians helping students to use technology properly;
  - experts in virtual environment accessibility, which the school management relies on when investing in information systems and e-learning;
  - experts in accessibility of the physical environment, on whom school management relies for investments in buildings and exteriors, etc.

The training of these groups cannot be interchanged and the time planned for the training in Brno does not allow to get practice in all these activities at the same time.

3. For the agreed groups it is necessary to arrange the exact program in advance, especially by sending from the Sri Lankan side in advance the specific documents that the student is supposed to work with (textbooks, teacher presentations, e-learning, exams, plans, charts, maps, etc.), so that the Czech lecturers can prepare for this type of materials and think about appropriate solutions.

Independently of this preparation for the spring training, the Brno team offered ongoing consultations to the Sri Lankan partners:

- faculty management in order to streamline the educational process, make the steps more coherent, and clearly define responsibilities for disability services,
- teachers, pedagogical counsellors, librarians and SNRU staff who address a specific technology problem in Sri Lankan universities (science notation, music notation, sports).

The Brno team also initiated a meeting with representatives of special schools and appreciated the videoconference with the representatives of ministries because it could lead to greater cohesion of the entire Sri Lankan education system in the longer term:

- streamline teaching processes in special schools and in advanced level inclusive schools (use of technology, work with graphics, use of sign language, STTR) so that students with disabilities are well prepared for university studies;
- the technological adaptation for the A-level exam must be the same as the adaptation for the university exams, which requires interaction of different ministries;

• information on the individual adjustment done for the purposes of the A-level exam of a person with disability, should be shared with universities and university SNRUs have to share it with academic staff who come in contact with the student, etc.

#### F. Acknowledgements

The schedule of individual meetings during the working visit is attached to this document. It was a chain of both physical meetings and online conferences which involved a total of about one hundred participants with very heavy workload. Such a complex and meticulously prepared agenda was extremely carefully tailored to the Czech team's request, it was even repeatedly modified based on Czech comments, and it needed a lot of energy and time which Sri Lankan hosts invested to put it together. The visit took place at a time of heightened coronavirus wave in Europe and required a number of specific documents (invitation, vaccination certificate, PCR test certificate issued for both the outward and return journey no more than 72 hours before crossing each national border etc.). Even these documents were issued in time thanks to the assistance provided by the team of Prof. Anoma Abharayatne who arranged all details with amazing dedication and we are happy to express our appreciation and gratitude to them for this service.

Brno, 10<sup>th</sup> December, 2021

Mgr. Michaela Hanousková, Ing. Boris Janča, Dr. Petr Peňáz, Ing. Svatoslav Ondra



# Day 1 – Nov 29, 2021

Time	Task/Activity	Venue
9.00 - 10.00	Meeting with IncEdu coordinators	Faculty of Arts, SNRU
10.00 - 12.30	English Lesson online (observation)	FoA, English Language Teaching Unit classroom
12.00 - 13.00	Lunch	FoA garden
13.30 - 14.30	Meeting with the Vice Chancellor	UoP Headquarters
14.30 - 15.30	Dean of the FoA and Heads of the Departments: discussing the impact of the inclusive teaching	FoA Meeting Room
15.30 - 16.00	Meeting with SAR/FoA (Ms. Sanjeewani, Ms. Kumari, Mr. Shanaka & Mr. Lakshman): discussing admission and activities throughout the academic programme	FoA Meeting Room
16.00 - 17.00	Meeting with Proctor (Prof. Ramani), Student Council chair (Ashwin)	FoA Meeting Room

# Day 2 – Nov 30, 2021

Time	Task/Activity	Venue
9.00 - 10.30	Mathematics teaching staff (Dr. Muditha, ICT – Mr. Thatil, Temp, Vinayagathasan): teaching maths to the blind and partially sighted	FoA, Department of Economics & IT Lab
10.30 - 11.00	Теа	FoA, SNRU
11.00 - 13.00	Meeting with other staff members (who teach for SWDs /non SWDs): discussing the impact of the inclusive teaching of different courses	FoA Meeting Room
13.00 - 14.00	Lunch	FoA garden
14.00 - 15.00	Meeting with the librarians, visiting the library, room dedicated to SwDs	UoP Library
15.00 - 16.00	Meeting with supportive staff (non-academics, technical staff members - Hemantha, Bandara, Eranga and Nalin): technical assitance to the SwDs	FoA Meeting Room
16.00 - 17.00	Meeting staff members at the Gymnasium and visit Gymnasium (Dr. Walter): sport activities of the SwDs	University Gymnasium

# Day 3 – Dec 1, 2021

Time	Task/Activity	Venue
9.00 - 12.00	Visit the Senkadagala Deaf & Blind School: discussion with the principal, music, maths lesson for the blind, science and dancing for the deaf	Srimath Kudarathwatta Mawatha, Kandy
12.00 - 13.00	Lunch	FoA, SRNU
13.00 - 14.00	Celebrate World Disability Day Webinar: Accessibility of the European Higher Education: What Has Changed in the Last Three Decades?	FoA, Department of Sociology, meeting room
14.00 - 15.00	SNRU - Equipment Requirement, Teachers Guide, Discussion	FoA, Department of Sociology, meeting room
15.30	Leave for Colombo	Colombo, Janaki Hotel

# Day 4 – Dec 2, 2021

Time	Task/Activity	Venue
9.00-10.30	Braille Press Education Department: meeting with Braille editors	Gammana Road, Maharagama
11.30-13.00	The Ceylon School for the Deaf & Blind: discussion with the principal, ICT Lab	521, Galle Road, Rathmalana
13.30-14.30	PCR Tests	
15.00	Leave for Matara	Matara, Lakraj Hotel
19:30-20.30	Sri Lanka Council of Visually Handicapped Graduates	694 / 1D Galle Road, Land, Moratuwa (Zoom)

## Day 5 – Dec 3, 2021

Time	Task/Activity	Venue
9.30 - 10.30	Meeting with the Vice Chancellor of the University of Ruhuna	UoR Headquarters
10.30 - 11.30	Dean of the FoHS and Heads of the Departments: discussing the impact of the inclusive teaching	FoHS Meeting Room
11.30 - 12.00	Meeting with the educational counsellors	FoHS Meeting Room
12.00 - 12.30	Meeting with the SwDs	FoHS Meeting Room (Zoom)
12.00 - 13.30	Lunch	FoHS dining room
13.30 - 14.30	FoHS guided tour, SNRU	FoHs facilities
14.30 – 15.30	Wrap-up meeting (UoP, UoR, SLTC, Eastern University)	FoHS Meeting Room
15.30	Collecting PCR Tests, Leaving for Matara	

## Day 6 – Dec 4, 2021

Time	Task/Activity	Venue
8.30 – 9.30	Meeting with the representatives of the Ministry of Education, Ministry of Health	Zoom