

2020 IMPACT REPORT

# AGILITY IN PURSUIT OF MOBILITY



**HUMAN  
STUDY** 

KNOWLEDGE FOR A BETTER LIFE

SCHOOL OF REHABILITATION SCIENCES

[www.human-study.org](http://www.human-study.org)

"Even more important than knowledge is the life of the emotions. A world without delight and without affection is a world destitute of value. These things the scientific manipulator must remember, and if he does, his manipulation may be wholly beneficial."

Bertrand Russell

# INTRODUCTION

We at Human Study offer this annual report both humbled and emboldened by what has been a year of consistent and persistent disruption. Our work, like that of many people and organisations around the world, has been impacted and transformed by Covid-19. As we emerge into a future we couldn't have imagined, we are hopeful that the hard earned lessons of this past year will help inform a more capacious and robust approach to healthcare moving forward.

For many organisations, Covid-19 upended what they thought could only be done in physical spaces. An abrupt shift to digital-only and remote working set ups brought with it teething problems and growing pains, but has left an indelible mark on our working lives and on the future of work. Since our inception, we've had no choice but to offer blended learning models and modules because the nature of our work demanded it. But we, too, had to figure out in real-time how to adapt our physical sessions to digital spaces, potentially disrupting the educational journey of our students, who rely on the deft hand of our trainers and tutors to guide them through such intense training.

I'm proud to report that we succeeded under pressure.

As we continue to devise, design and deliver educative programs in pursuit of increased mobility for all, we feel encouraged by the agility our students, teachers and graduates exercised during and in response to a tremendously challenging year. That our collective desire and drive to provide education and training for much-needed prosthetists and orthotists could not be dimmed or deterred in the face of a global pandemic, is testament to Human Study – literally and figuratively. We are proud our team has shown the unyielding determination of the human spirit in the face of adversity.

Our 2020 Impact Report, "Agility in Pursuit of Mobility", outlines the ways Human Study has responded to the global pandemic and the attendant quagmires we navigated in order to continue to deliver our vital educational and training in prosthetics and orthotics (P&O) in Bangladesh, Burundi, Croatia, southeastern Europe, Egypt, India, Malawi, Myanmar, Pakistan, Syria, Sudan and Tanzania. It charts the progress we're making in securing funding to expand our footprint and impact in the Arabic-speaking world. And it illustrates a vision for Human Study's future influenced and shaped by what we've learned – and are still learning.

We are working towards a world in which those who need receive.

No longer encumbered by language or educational barriers, no longer restrained solely within the realm of the physical teaching environment, Human Study is one difficult year closer to achieving our goals. We'd like to thank our funders, donors, leadership, faculty, students and models for their continued flexibility and unwavering belief in our work.

I believe that in all we do, personally and professionally, the commitment we make to others defines the texture and course of our lives. At Human Study, our commitment is to the 40 million people around the world who do not have access to the assistive devices that would enable greater mobility and quality of life. There is still a great deal of work to be done to provide the technologies of mobility that people deserve, but our hope and our ambition is that by providing knowledge for a better life, we can reach our preeminent goal of mobility for all.

**Christian Schlierf**

Founder and Managing Director, Human Study





Student Syed Nawaz Ullah with a patient in Pakistan © 2020 HS

# OVERVIEW

The team at Human Study and the students we train are adept at working in difficult circumstances. We typically work and study in places where conflict is either raging or raged recently. We work closely with partners to deliver services to communities of refugees who are living in cramped and unsanitary conditions, and who are frequently subjected to the danger of various viruses that sweep through dense accommodation.

Even with this experience, and a blended learning model that means the majority of our courses are taught at a distance, 2020 was a shock and a struggle to adapt to. That said, our students rely on us, and their education is of crucial importance to them personally and to the quality of care that people who need their support receive.

The on-site workshops and assessments that accompany the conclusion of each module of our courses are vital. While the nature of the work in hand means that no alternative model of provision will be quite as effective, we discovered it is possible to deliver this support online. Our alternative model of provision (delivered via long and intense Zoom sessions) saw every student on the pilot course graduate their course with the grades they need to qualify.

Covid-19 forced us to pause while we worked out how to continue delivering our courses through the pandemic and the attendant restrictions and lockdowns. Despite this, over the past 12 months, we have delivered training to students in Bangladesh, Burundi, Croatia, southeastern Europe, Egypt, India, Malawi, Myanmar, Pakistan, Syria, Sudan and Tanzania.

We have also supported and helped fund the set-up of Human Study UK, a sister organisation in the UK, which has already been successful in obtaining funding so we can graduate the first internationally-accredited cohort of teachers of Prosthetics and Orthotics (P&O) in the Middle East. These seven Syrian students will be transformational in terms of educating the next generation of much-needed P&O clinicians and technicians in the region.

The training and deployment of seven (teaching level) students to Arabic-speaking countries is an important step forward for Human Study. The vast majority of our courses around the world are taught in English, which means that without excellent English, students cannot expect to pass them. Our long term ambition is to provide both the course materials and teaching in Arabic, making prosthetics and orthotics professions open to those with the right technical and patient support skills, which need not include the ability to write and speak English.

Much like our blended-learning model, we are pursuing various fundraising streams. The International Committee of the Red Cross (ICRC) has provided funding to translate two modules within our standard course into Arabic, and we are currently seeking funding to translate the remaining modules.

Anyone who is interested in supporting us to achieve this, please contact [cschlierf@human-study.org](mailto:cschlierf@human-study.org).

**"Human Study has a great impact on my work. Because of good study methodology and online classes, I can study and work at the same time, so I want to continue this program with Human Study for the sake of disabled people, especially here in Syria. There is a great need for professionals in prosthetics and orthotics."**

**Asad Ur Rahman, Syria**



# OUR IMPACT IN NUMBERS

# 60,000

Number of people worldwide receiving treatment each year from internationally accredited clinicians as the result of our training

# 95%

Percentage of students who say the programme met or exceeded their expectations

# 90%

Percentage of students who rated their programme 4 or 5 stars (out of 5)

## CASE STUDY: UKRAINE

"M. is 13 and was born with cerebral palsy. He goes to school, lives with his family in an apartment, and loves to play with puzzles. Because of his cerebral palsy, he has low stamina and a posture disorder, with a low activity level.

"The orthotic device we made is a Knee Ankle Foot Orthosis (KAFO). It is a complete orthosis for a paralyzed leg, with a blocked knee and free movement at the ankle joint.

"We had challenges with the height and the internal rotation of the right thigh during gait. While he can ambulate in his orthoses, he still needs support by another person, so physiotherapy and gait training will be necessary and made available to teach him better balance and coordination.

"We added an additional element in the orthosis to hold his right hip. His right knee will need further physio treatment, to improve the contracted position.

"M. will need his orthoses permanently, and so he and his mom will come to us for regular orthotic treatment visits."

Oleksander Herasymenko, Student (Ukraine)



# STUDENTS IN UKRAINE AS A MODEL OF AGILITY AND IMPACT

Our project in Ukraine aims to establish an internationally recognised P&O program at NURE university, one of the oldest and most respected engineering universities in Ukraine. This national program successfully graduates local P&O professionals to internationally-accredited standards, and the first generation of students has graduated as Associates in P&O.

In the absence of an ability to deliver on-site workshops, we developed the Clinical Online Seminar (COS). This online training program is based on video tutorials and live streamed teaching sessions. We worked further to develop this into a pilot model and to make it comprehensive enough to cope with what could be a years-long delay in returning to on-site training in some of the places in which we operate. COS' have since been deployed to other Human Study projects, ensuring consistency in both the training and motivation of students.

Where teachers could not and cannot share a room with students, we've developed Practical Online Workshops, or POWs. POWs combine new video materials with curated content from our existing video training library to produce step-by-step teaching guides for students to follow. POWs are complemented by livestream sessions with teachers, designed to mimic the intensity of onsite practical workshops. Our Associates served as on-site mentors, supporting teachers as they went through each step of the full practical P&O workshops online for the first time using POWs.

A second generation of 12 candidates has started on their journey to become Associate P&Os and will be mentored by our first generation graduates. We would like to thank all of our students – graduated and in-training – for being part of the solution as we adapted to the restrictions and obstacles presented by Covid-19. What started in Ukraine as a local adaptation to teaching in response to Covid-19 has now become a model used across Human Study projects.

**Human Study's interest in sustainable empowerment towards mobility for all means the continuity of training for our Associates requires more funding – and urgently. If you would like to help us with this project, please email [cschlierf@human-study.org](mailto:cschlierf@human-study.org).**





Top, L-R: Student Abdul Haseeb with patient in Pakistan © 2020 HS, and a patient in OTC in Ghana © 2020 N. Retzlaff  
Bottom: Student Waseem Javed with a patient in Pakistan © 2020 HS

# CASE STUDY: MYANMAR

"Zaw is a 26-year-old student of hair design. In his free time, he likes to listen to music. In 2015, Zaw lost his left leg in a car accident, in which his right leg was also heavily injured and had to be saved by fixators. He uses his prosthesis all the time.

"We made an above the knee prosthesis with an IC socket, and a knee joint with a manual knee lock, to provide Zaw with stability and good static and dynamic control. Biomechanically, the IC socket provides higher functionality, less energy consumption, and increased safety and control of the prosthetic device.

"Zaw wanted a prosthesis with good aesthetic appearance that was lightweight and comfortable, as he wants to walk independently and securely, so that he can continue studying and working in the job he loves – which requires he stand on his feet for many hours a day.

"As a result of our work, Zaw can walk independently and has a comfortable and close-fit prosthesis that enables equal distribution of weight on both legs during standing and walking. Importantly, this device enables him to continue studying and working as a hairdresser."

Sitt Lwin Ko, Student (Myanmar)



# COVID-19 ADAPTATIONS EXTEND TO PROFESSIONAL DEVELOPMENT WITH GREAT SUCCESS



The utility of POWs is evidenced further by their impact in our Specialised Courses in Prosthetics and Orthotics (SCOPE) projects around the world, where POWs were engaged to train 105 professionals on various topics within P&O sciences, such as Ischium Containment Socket Design (IC), Knee Ankle Foot Orthotics (KAFO) and Trans Tibial Prosthetics (TT).

Students were instructed and supervised virtually by their teachers in the practical application of the acquired knowledge. The success rate of students in their practical application of the learned skills and knowledge was impressive: in a SCOPE on lower limb prosthetics in Pakistan, seven out of 11 students acquired 'excellent' results with their prostheses, and their model patients were happy with the device.

## **GENERATION 2019: UNDETERRED BY DIGITAL DISRUPTION**

With 19 students from 11 countries, Generation 2019 showcases our grassroots approach to P&O education globally. Students from Bangladesh, Burundi, Croatia, Egypt, India, Malawi, Myanmar, Pakistan, Syria, Sudan and Tanzania are training to become trainers and leaders of the P&O profession and service provision in their countries. As the first local professionals to be educated as internationally-accredited teachers, they will inevitably take leadership roles and, in turn, magnify the impact of our training as they support the next generations of accredited clinicians and technicians in their countries.

Seven students on this course are from Syria, where they work in Syria or along the border between Syria and Turkey, serving predominantly Syrian patients. Through our sister organisation, Human Study UK, we were given funding for these students from the Sir Bobby Charlton Foundation.

In 2020, our students completed their 3rd and 4th semesters, and are on track to graduate in 2022. Our partners and collaborators on this project are the National Syrian Project for Prosthetic Limbs, The Sir Bobby Charlton Foundation, the Legacy of War Foundation and the ICRC. Students are enrolled for final examinations at Mahidol University in Thailand, our long-standing partner in BSc accreditation.

# **ERBIL POLYTECHNIC UNIVERSITY AND HUMAN STUDY: BUILDING A FUTURE FOR P&O IN IRAQ**

Together with the ICRC Geneva and their physical rehabilitation programme in Iraq, we have started a development project that aims to establish a P&O educational program at the Erbil Polytechnic University (EPU). EPU will be developed into a modern educational hub for P&O for the entire country, and we will work towards an international accreditation by the ISPO in future.

In the meantime, our first and immediate goal is to bring 15 selected candidates to the BSc at P&O level according to a curriculum that has been developed and accepted by the Ministry of Education in Iraq. These candidates will spend the next three years in training in Erbil, becoming educators and trainers for future generations of professionals.

EPU and Human Study will share teaching responsibilities in the program. For Human Study, this is the first project where the presence-based model is used for teaching academic and country-specific subjects (delivered at EPU), and blended learning for teaching prosthetics and orthotics (delivered by Human Study).

The project launched in 2020 with Semester 0, in which we brought our practically-experienced students to a common academic level in the P&O sciences, readying them for university study in March 2021. As students undertook Semester 0, EPU was equipped with a P&O training workshop and state-of-the-art didactic tools, including white boards in classrooms.

**“Human Study are providing specialist academic and technical support to the International Committee of the Red Cross (ICRC) to open a Prosthetic and Orthotic Bachelor Degree course in collaboration with Erbil Polytechnic University in Iraq, including curriculum and syllabus development, through the use of an online learning platform to deliver course material.**

**“This method of delivery has created the opportunity for Iraq to access education and academic resources that will provide rehabilitation professionals with high quality skills and knowledge at internationally recognized standards. Using the online learning platform has proved to be a major advantage during the uncertain times of Covid-19 and subsequent restrictions, as the classes can continue to be delivered.”**

**Therese Powell, Physical Rehabilitation Programme Manager at ICRC**



Asad Ur Rahman with a patient © 2020 HS



Top: Asad Ur Rahman with a patient in Syria; Middle: Hussam Uddin with a patient in Pakistan; Luia Alhallaak with a patient in Syria; Fatima Almubarak with a patient in Syria; Bottom: Shafiq Ur Rehman Dawar in Pakistan. All © 2020 HS

# SUSTAINING P&O IN SOUTHEASTERN EUROPE WITH GENERATION FIVE

**“In spite of a mountain of challenges caused by Covid-19 and a devastating earthquake that hit Croatia, we have managed to successfully start the educational program for a new generation of students. What makes us extremely proud is the fact that the current project is taught by local trainers.”**

**Ivan Pintar Kragaćić, Lead Trainer, SEE**

Our work in southeastern Europe (SEE) continues at pace, and we continue to make an impact on P&O in the region with our fifth generation of students. Representing Croatia, Bosnia, Northern Macedonia, Serbia and Slovenia, these students will eventually join the 80 professionals we've trained, who are now employed in 48 P&O facilities across the region. Importantly, SEE is a self-sustaining project: teachers and trainers in this project are our local graduates from previous projects, and the project is managed with local resources, with local employers covering tuition fees for their staff.



## WORLD-FIRSTS ON THE HORIZON IN GHANA AND UGANDA

**“I look forward to continuing my relationship with Human Study where I will get the opportunity to further my P&O career and become a lecturer, so I can impart my knowledge on future students.”**

**Peter Courage, Ghana**

The Orthopedic Training Centre (OTC) in Ghana continues to offer a promising lens through which to view the emotional and life-changing impact of P&O. Human Study is honoured to play a role in the initiative to make the Br. Tarcisius Prosthetics & Orthotics Training College (BTPOTC) an internationally-recognised school for P&O.

The project began in June, funded by Else Kröner-Fresenius-Stiftung (EKFS) in Germany. 12 students from Ghana and two from Uganda are training as Associates in P&O, which will grant them eligibility to enroll in our BSc in P&O program so they can teach others. In November, we organised an on-site practical workshop seminar in OTC, led by our P&O experts Nicolas Munoz and Anareme Kpandressi.

These students are on the path to become the first internationally-recognised teachers for P&O in Ghana and Uganda, and to serve as the capacity-builders for future generations of professionals in the region. BTPOTC aims to become the P&O educational hub and the first internationally-accredited independent educational institution in P&O in anglophone West Africa.



Top: Nicolas Munoz and Anareme Kpandressi with the class in OTC in Ghana © 2020 HS  
Bottom: Sister Elisabeth with a patient in OTC in Ghana © 2020 N. Retzlaff; and students working during a workshop in Ghana © 2020 HS.

## **TRAINING OF TRAINERS: LIVING OUR VALUES IN OUR PROGRAMME DESIGN**

Central to our mission, ethos and vision is inspiring and training people to become teachers. As such, we have developed a short Training of Trainers Program, especially made to qualify prosthetists and orthotists to instill their knowledge in others, using modern didactic tools in face-to-face and online settings. Participants in this fully-online and self-paced program enjoy plenty of exchange with their mentors and peers, and apply their knowledge in simulated and real-life educational settings during the course. In November 2020, 15 participants from Bangladesh, Iraq, Lebanon and Sudan started their training, and they completed their training in January 2021.



## **PROMOTE: UPSKILLING AND BRIDGING THE GAP WITHIN THE EUROPEAN UNION**

In 2020, we initiated the development of a project with a consortium of partners. The aim is to provide enhanced access to training and education for professionals in P&O within the European Union, and the project is focused on offering solutions to enable students with vocational training access to academic programs and to those with university degrees access to higher level programs (MSc, PhD).

PROMOTE partners include PFH Göttingen, St. Ana University Pisa, Thomas More University Geel, BLINK (Göttingen) and Human Study, and we:

- Offer opportunities for Bachelor graduates with 180 ECTS to reach the entry-level for the European Master studies by bridging the gap (60 ECTS). For Bachelor students in related professions who have acquired any number of credits, the program will aim to provide the required P&O knowledge.
- Support professionals without an academic degree to have their competencies validated according to the European Qualifications Framework (e.g. via the ECVET system) and to acquire qualification on the EQF level 6, which will give them access to an academic career or continuous professional development.
- Equip doctoral research students in the field of bio-robotics and other rehabilitation techniques (based on engineering Masters degrees) and offer modular CPD for important practical knowledge and skills in P&O.



## **LOWER-LIMB ORTHOTICS TRAINING DELIVERED IN ARABIC**

In partnership with ICRC in Jordan, we are implementing a training module on Lower Limb Orthotics for 12 students from Syria, Lebanon and Jordan. The project started in October as a five-month training delivered in Arabic. We are able to provide training in Arabic with our graduates from Tunisia as teachers.



# A VISION FOR THE FUTURE



The best among us falter in the face of chaos and uncertainty, and 2020 delivered each daily. What we at Human Study have found most inspiring and most edifying, as we continue to push forward, is the response from our team, students and partners across the world, who kept working, thinking and doing because we were all motivated to action by a common goal: mobility for all.

Looking ahead, we have four key priorities over the next year – and beyond:

- Recognise the phenomenal work of the late Sepp Heim, a leading professional and mentor to Human Study, with the launch of a scholarship fund to train students in his memory.
- Continue to develop professional and internationally-accredited P&O clinicians and technicians in the places they are needed, with a continued focus on places where conflict is, or has, left a long-term legacy of disability.
- Grow our reach globally: we have started in the UK and are now planning expansion into North America, to help us raise the funds needed to mainstream P&O education into rebuilding places and lives in the aftermath of conflict.
- Enable people to train in their own language wherever possible, removing proficiency in English as a barrier to the profession.

It is through such fantastic cooperation and dogged determination to realise our goals that we meet the challenges of our time with innovation and agility. While we are grateful and impressed by our ability to meet the many demands of 2020 with digital-only programmes and training, we are very much looking forward to meeting with students, teachers and partners as the world emerges from Covid-19.

We are particularly indebted to the International Committee of the Red Cross and their Prosthetic Rehabilitation Program for their commitment to collaboration in spite of varying and stringent Covid-19 restrictions. To Antonia Salieieva and her team in Ukraine, thank you. And to Mahidol University and the SSPO for your extraordinary support, we thank you, too.

Finally, to all of our students: you are the future we imagine in our minds and which you make real with your hard work. We are very, very proud of you.

Until next year,

Team Human Study



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