

# A SYSTEM TO UPSKILL 200 MILLION LEARNERS AND TO REMOVE THE GLOBAL SKILLS AND EMPLOYABILITY GAP

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## **Abstract**

Otermans Institute (OI) is a global organisation upskilling unserved and underserved populations with the mission of making populations of the world employable. Currently working in nine countries, supported by UKRI grant funding, OI is providing its solutions physically, digitally, and using Artificial Intelligence with the aim to upskill 750 million learners by 2025. From remote schools to foundation-run organisations to UN camps in Iraq, OI has supported over 30,000 unserved learners to date. Through immersive research across 3,200 kilometres in South Asia, OI developed a blanket curriculum and teaching & training method that can upskill 200 million learners in India today. The same system can be replicated in other Southern Asian countries like Pakistan, Afghanistan, Bangladesh, Nepal, Myanmar and Sri Lanka where 80 million other students can benefit immediately. Currently, this system has been taken by two state governments in India and by the Technical Education Department of the Government of Afghanistan. The original methodology of the research and curriculum development will be presented in this paper.

Although delays were caused by the COVID-19 pandemic to fully test the impact of the system over a significant period of 2020, the need and usability of the system has been accepted in nine countries. Based on the impact findings of the system over the next 9 months, further development and testing will be done with the target of making it a universal system across South Asia.

Keywords: Curriculum development, teaching and learning systems, South Asia, transferable skills, employability skills, Industrial Revolution 4.0.

## **1 INTRODUCTION**

Otermans Institute found that there is no defined national or universal employability-oriented transferable skills training system in any country in South Asia. The absence of such a system is resulting in students from these countries being less skilled for Industrial Revolution 4.0. This is also leading to lower employability across the region, with some of the highest graduate unemployment among developing countries [1].

In more detail, there exists over 15,000 large government Madrasa and alternative board schools across Bangladesh [2]. These schools do not offer transferable skills training and make it very difficult for their students to be employed in Industrial Revolution 4.0. Similarly, the private sector has shown a growing increase in demand for professionally skilled and business-ready workers. Without this, local industries and businesses cannot modernise and will therefore drag the national economy down including the country's income earning level. Currently, the demand of students is uninspiring and Bangladeshi workers are mainly employed only for low-income and physical labour jobs. Areas for drastic improvement have been identified by the World Bank as follows: Access to modern teaching learning facilities (e.g. team-based learning and online learning platforms), job market specific curriculum including soft skills and transferable skills development, and partnerships with both the private sector and industry [3].

In India, the biggest country in the region, 12 million youth between the age of 15 and 29 are expected to enter India's labour force every year for the next two decades [4]. Here, due to the lack of transferable and soft skills training, it has been noted that 80% of Indian engineers are not fit for any job in the knowledge economy [5]. Similarly, surveys by India Today have shown that over 60% employers believe that lack of transferable skills was the primary challenge they faced in employing people [6]. Apart from this problem, there exists over 1 million schools across the country [7] with 247 million students in their classrooms [8]. The schools operate on a similar system as Bangladesh and focus on the development of hard skills and use a very archaic school education system. There is hardly any focus on soft skills and transferable skills training and getting work-ready. This is something the new National Education policy, that came out in July 2020, is trying to tackle, and while it is agreed that a universalised education and training system can solve the above-mentioned issues for such a large population, it still lacks focus on the transferable skills requirements in the jobs market.

Adding to this, the private sector has shown a fast-growing increase in demand for professionally-skilled and business-ready workers similar to Bangladesh. Without this, local industries and businesses cannot modernise and will therefore drag the national economy down including the country's income earning level whilst continuing to increase unemployment levels which already stands at 6.1%; the highest in 45 years [9, 10]. This data is pre-COVID-19 and hence is unadulterated by the pandemic's effects.

Otermans Institute believes the only way to introduce transferable skills, especially aimed at promoting 21<sup>st</sup> century transferable skills, is through a blanket training system that can be used nationally. The similarities across the countries in South Asia are so high that there is an opportunity, with unique benefits, to even make the system universal for the region. Otermans Institute has created such a system which has been tested in most South Asian countries: India, Nepal, Bangladesh, Sri Lanka, Pakistan and Afghanistan, and continues to train learners in these countries. Recently with early success of the programme, it is now also training learners in other West Asian countries like Lebanon and Palestine, and recently entered South Africa after receiving a grant from Innovate UK; an arm of United Kingdom Research and Innovation.

## **2 METHODOLOGY**

To establish the blanket training system, Otermans Institute carried out a four-step research process which included consulting with teachers, training students physically and digitally, conducting a systematic literature review on the state of soft skills and transferable skills training in South Asia, and seeking government input from two South Asian countries; India and Afghanistan. Each of these are mentioned below. Furthermore, weekly student feedback is being gathered to research the ongoing effectiveness of the blanket training system across multiple countries.

### **2.1 Research methodology: Teachers**

Otermans Institute conducted research across 3,200 kilometres in Nepal, Bangladesh and five states of India; West Bengal, Bihar, Uttarakhand, Maharashtra and Tamil Nadu. The research involved discussions with 600 teachers in India and Nepal. The discussions and questions reflected upon their views of incorporating soft skills and transferable skills into the student curriculum from a formative age of students who are in schools; age 14 years and over. Furthermore, enquiry was made into why they thought such a programme was not included in the current education system and the challenges they saw to incorporate it.

### **2.2 Research methodology: Teaching**

Members of Otermans Institute spent weeks living in schools in India and Nepal to teach students. The experience allowed them to understand challenges for such a training to students and ability for students to take it. Three points were taken into consideration; 1) ability of students to understand the skills being taught; 2) willingness to engage with the training; and 3) ability to participate in the training. For the purpose of this paper, two schools are being considered: Hillwood Academy in Uttarakhand India primarily consisting of first-time learners and DY Patil school in Patna Bihar with more advanced learners.

Separately, trainers of Otermans Institute are conducting lessons digitally for students of Afghanistan under an agreement with the Technical and Vocational Education and Training Authority (TVETA) of the country's government and with multiple groups of students in Pakistan and Sri Lanka. Regular student feedback is collected to see the effectiveness of the training system. In addition, weekly feedback from trainers is gathered to identify areas of improvement for the training system and special needs for students of different geographic locations.

### **2.3 Research methodology: Literature review**

A comprehensive systematic literature review is ongoing. At the time of creating the training system, an ongoing review of approximately 160 journal articles and other sources were considered. Most of these resources are published after 2017, and it builds further on a systematic literature review published by other researchers [11] whose findings show the importance of skill development, the role of institutions, and the necessity of skill development in the advent of technological changes. Furthermore, it highlights that labour market reforms are required to overcome challenges such as mismatch between theory and practice, the mismatch between demand and supply of skilled labour force including transferable skills training, low level of in-house training, low cooperation from students and employees due to lack of incentives and lack of qualified teachers.

## 2.4 Research methodology: Government

Otermans Institute has a Memorandum of Understanding (MOU) with the Government of Uttarakhand and the Government of Afghanistan. These MOUs were granted because of both government's belief in the severe lack of soft skills and employment-oriented transferable skills training in their state and country respectively. Furthermore, education departments of both governments conducted a detailed review of the curriculum and teaching methodology of the system before granting permission to establish the MOU. The MOU with the Government of Uttarakhand permitted the training for year 9-12 students of 10 schools in Uttarakhand for two years with the view of expanding to schools in the region post completion of this 2-year pilot phase. The MOU with the Government of Afghanistan established training with 60 students as a feasibility group for 3 months. The aim is to expand the programme to 600 students as a larger feasibility study in mid-2021 after completing the training of the current cohort.

## 3 RESULTS

Results of the discussions with teachers in Nepal, Bangladesh and India show that 91% of teachers accepted that there was a lack of soft skills and transferable skills training in the education system and 2% denied it. The same percentage of teachers accepted the need to incorporate such training within the curriculum. In addition, 60% of teachers identified the current existence of an extensive academic syllabus in school academia as the main reason for being unable to incorporate other skills training into the education system. Furthermore, 80% teachers agreed that a blanket system could be incorporated in the weekly curriculum of students, for no more than one weekly session, and that having a universal system would be beneficial.

In our immersive study in Hillwood Academy, spread across three tours in one calendar year, each lasting one week with three 2-hour sessions, and in DY Patil school (one 2-hour session), it was found that students who were not previously introduced to soft skills and transferable skills training were able to understand and participate in the sessions. Students ( $N = 140$  combined) showed great enthusiasm and engagement in all of the sessions conducted and were very participatory. Additionally, students said that they very much liked the training and that all topics were new to them. Students understood that these types of skills were very different to the topics they daily learn at school and that it is important for them to develop these types of skills. When these pilot sessions were over, most students asked when they would get the full programme.

As mentioned above, regular student feedback is gathered about the digital lessons. This data is gathered using an online survey at the end of the lesson and participation is voluntary. The most recent regular student feedback ( $N = 62$ ) gathered from Afghanistan (one student group), Pakistan (five student groups) and Sri Lanka (one student group) showed that 92.9% of students indicated that they understand and learn more about the topic of each lesson. In addition, 88.7% of students agreed that they very much enjoy the lessons from Otermans Institute and are very satisfied with the training received. Also, weekly trainer feedback reported that students were highly engaged and understood the topics despite language barriers. This shows the initial success of a blanket system approach as the overall feedback from students in three countries was positive, showed the need for the development of these skills, and students enjoyed the sessions. Students feedback indicated that they preferred activities to develop these skills and that through discussions and self-reflections their learning and understanding of the topics improved. Further data on assessment (ongoing) will provide more insights on this.

Our literature review, currently 160 papers, overwhelmingly suggests the need to include soft skills and transferable skills in the curriculum and education settings. Furthermore, it suggests that these types of skills should be taught using interactive and innovative teaching methods as these skills are not based on didactic content but based on interactive learning and self-reflection.

Finally, the TVETA department under the Government of Afghanistan and the Ministry of Education under the Government of Uttarakhand have expressed their understanding of the lack of transferable skills in their education systems. Therefore, they permitted our programme to conduct feasibility studies on one group of 60 students (Government of Afghanistan) (ongoing) and one on year 9-12 students of 10 schools (approx. 600 students) (Government of Uttarakhand, India) (currently halted due to COVID-19 and school closures).

### 3.1 The system

The training system built upon these findings, rests on five pillars which were identified as being suited to the needs of learners in six South Asian countries (India, Nepal, Bangladesh, Afghanistan, Pakistan and Sri Lanka). These were:

- 1) Engagement: Retention of learners is higher when they actively engage with the sessions. Therefore, all sessions are designed in an interactive manner and all didactic content is taught using interactive teaching methods such as discussions, quizzes, activities, and videos.
- 2) Group: Group activities during sessions support learners practically experience the concepts and apply their learning directly. In this way, they practice transferable skills such as presenting to groups, giving and receiving feedback, and active listening.
- 3) Gamification: The element of friendly competition is included into the system to increase learner engagement and active learner participation.
- 4) Discussion: Learners are encouraged to give and receive feedback on their ideas and insights which promote critical thinking, ideation and teamwork.
- 5) Self-reflection: All of the above connect to self-reflection as Otermans Institute believes that regular self-reflection aids in the development of soft skills and transferable skills.

The curriculum is designed around 12 main topics on soft skills and transferable skills development which include Communication, Emotional Intelligence, Time Management, Leadership, Teamwork, Professional Etiquette, Resilience, Motivation, Critical Thinking, Creativity, Ideation and Employability Skills (e.g. CV and Cover Letter writing and Interview Skills). Each topic has been chosen to fit with needs of Industrial Revolution 4.0.

## 4 CONCLUSIONS

In conclusion, this paper proposes that the blanket training system developed to upskill learners across most countries in the sub-continent of South Asia is credible and has potential for application across all of the countries in the region. Based on the initial success of the blanket system, the same model is being implemented in West Asian countries (Lebanon and Palestine) for the past five months where student feedback and weekly trainer feedback is showing similar results. Based on these successes, the potential for this system to upskill 200 million learners is evident. The methods mentioned in this paper have been tested across countries and have shown initial success in all of them and in similar propensity. Over the next nine months, the impact of the programme will be monitored weekly and expanded to larger cohorts, taking it closer to becoming a universal system across South Asia. Furthermore, a longitudinal study is required to test the effect of the training system and graduate outcomes, employability levels, and job satisfaction.

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