Transforming Learning: High Touch High Tech

The global challenge

The Education Commission’s *Learning Generation* report delivered a stark warning: if nothing changes by 2030, 825 million young people – about half of today’s young generation – will reach adulthood without the skills needed to thrive in today’s world. Children around the world are not learning in part because their different learning needs are not being adequately addressed. The current classroom model, where teachers deliver standardized content in a uniform manner, provides little space to adapt to students’ individual needs. Education experts and policymakers have long recognized the importance of personalized learning, but it has never been realized for all students, only a lucky few.

The opportunity to transform education

Addressing the global learning crisis relies on the ability to provide personalized learning at scale for every student. At the heart of the personalized learning approach is the concept of Teaching at the Right Level (TaRL). Rigorously evaluated for the last two decades, TaRL has shown to consistently improve learning outcomes by tailoring teaching and assessment to individual learning needs. However, TaRL is not easy to achieve, and is often identified as a key constraint to learning. Technology could help achieve this, and at scale.

Adaptive, or personalized learning opens up a new frontier in education. While it is a relatively new area, research has shown that adaptive learning has significant potential to improve learning outcomes. Research has indicated that personalized learning can: i) enable teachers to Teach at the Right Level (TARL); ii) reduce negative effects of high pupil-teacher ratios; and iii) improve learning outcomes, especially for those most marginalized, lowest performing, and potentially including those returning to school after a prolonged absence.

Adaptive learning, when powered by artificial intelligence (AI), adapts the learning experience for students depending on their level and progress – a feature that many earlier technological applications lacked. It directly resolves the key constraint and mismatch between standardized classroom instruction and diverse learning levels and behaviors of students. AI-assisted adaptive learning also brings a real-time dimension to personalized learning, providing support that is not only individualized but also immediate. Adaptive learning platforms offer learning at the right pace and at the right level for all students and have proven to be effective even in resource-constrained contexts. They could be critical in mitigating the repercussions of learning loss due to COVID-19.

High Touch High Tech (HTHT) learning

The HTHT learning approach combines adaptive technology (High Tech) with personalized teaching and the cultivation of students’ higher order skills and socio-emotional growth (High Touch). The adaptive
technology enables students to first understand and remember content, adapting to the pace of each student. Teachers can then use the data from the adaptive system to personalize and target their support for students and respond to their individual needs. Teachers can then shift their role and focus on helping students to learn high-order skills like complex problem-solving, critical thinking, teamwork through projects, discussions, and hands-on experiences. Adaptive learning technology can enhance and deepen the importance of teachers by transforming their role for the 21st century.

The Education Commission, in partnership with Vietnam’s Ministry of Education and Training and Arizona State University, implemented a prototype HTHT program for grade 7 math in four urban schools in Vietnam. The prototype demonstrated promising results with positive teacher satisfaction and adoption after just one semester. The prototype increased treated students’ math test scores by 0.436 standard deviations – equivalent to two years of learning – a statistically significant impact. Furthermore, teacher training efforts during the pilot significantly increased the teachers’ familiarity with instructional technology and active learning pedagogy. Teachers are collaborating around student data and learning from each other to optimize their ability to impact student learning.

A partnership between the Commission, Plan Ceibal, and the Inter-American Development Bank (IDB) has been established to implement HTHT in Uruguay, starting early next year. The Education Commission’s Asia Hub has established a HTHT University Consortium with 26 Korean universities and other key stakeholders that wish to incorporate HTHT education in their curriculum. In addition, the Asia Hub is leading a project for vulnerable children which uses adaptive learning using artificial intelligence (AI) for students from low-income and multicultural backgrounds and children of North Korean defectors.

The opportunity to collaborate and innovate

Commission Chair Gordon Brown and former Minister of Education, Science and Technology of South Korea and Commissioner Ju-Ho Lee recently launched the High Touch High Tech Global Consortium to unify and stimulate the ecosystem, leverage the distinct strengths of multisectoral stakeholders to address common challenges, and accelerate the scale-up of HTHT worldwide. This Consortium will use research to build the evidence and understanding of enabling factors for scale; undertake on-the-ground testing in diverse contexts; and catalyze global learning and action by convening diverse actors to share evidence and lessons on scaling the HTHT approach. The Commission is seeking pioneer partners and funders as first-mover collaborators to support the Consortium. We are also keen to partner with select countries, academic and non-government institutions, members of the education workforce, development partners, and technology leaders to propel this agenda forward so High Touch High Tech learning can be available to all.

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