High Touch High Tech for All: Policymaker Brief

High Touch High Tech for All (HTHT) is an approach that aims to transform classrooms to deliver the vision of personalised learning for all learners, including the most disadvantaged, by combining the unique strengths of the teacher (High Touch) and the power of adaptive learning technology (High Tech). The locally available technology selected by the government or partner provides adaptive content and assessment aligned with the national curriculum. This develops students' foundational skills by meeting students at their level and helping them progress at their own pace. The teacher can then use the data from the platform to personalise teaching further, such as through targeted, small-group reteaching sessions for students who struggle in specific areas. Additionally, teachers can use their classroom time to focus on higher-order skills, including critical thinking, collaboration and peer learning, and socio-emotional growth through approaches such as project-based learning. **The technology, combined with teacher training and support to shift classroom pedagogy, provides the potential to accelerate learning for all at scale.**

The Learning Generation Initiative at EDC has undertaken four pilots of HTHT in Vietnam, Uruguay, the Philippines, and Cambodia. **Across these four contexts, statistically significant learning outcomes have been demonstrated, often doubling the learning gains compared to the control group.** This brief outlines considerations for policymakers along the themes of **technology selection and use**, **initial and continuing teacher professional development**, and the need for an **ecosystem approach.**

Technology selection and use

Technology infrastructure is the backbone of any HTHT implementation, but it is important that the technology solution supports both teachers and learners. HTHT depends on essential conditions such as sound pedagogy, curriculum alignment, usability, connectivity, access to appropriate devices, and other enabling factors. These must be considered in terms of what it would take to sustain consistent access and use at the national scale. In each of the four HTHT pilots, different technologies were selected based on the local context and availability to support sustainability and scale.

Sound Pedagogy
Technology solutions should reflect evidence-based learning research, including: adaptivity that adjusts the level in real-time to learner performance; spaced repetition, scaffolding, and feedback loops; clear support for teachers to guide learning, not just assign tasks; and integration of higher-order skills like reasoning and problem-solving. They should be supported by evidence of improved student outcomes across settings, teacher satisfaction and ideally third-party validation or research trials. ALEKS and Maths Pathway were selected for use in the

Vietnam and Cambodia pilots due to their proven adaptive functionality harnessing AI machine learning technology.

Curriculum Alignment

The product must map clearly to national learning outcomes and instructional pacing. Misalignment leads to teacher resistance or learner confusion. Content should be locally relevant and in the appropriate language; match the level and progression of national curriculum frameworks and integrate with formative and summative assessments. In all the pilot countries, we worked with local teachers to map the software to the local curriculum to ensure alignment. One lesson we learnt in Cambodia is that although the curriculum was aligned, the sequencing and pacing was different to the monthly standardised assessments that students need to take and so they need alignment too.

Usability

HTHT tools must be usable by teachers and learners with different levels of technology literacy. Considerations include intuitive interfaces; local language availability; customization by teachers; design to encourage persistence; and accessibility for learners with varying needs. In Cambodia, 95% of students had no experience with technology so teachers designed onboarding sessions focused specifically on digital tool use. In Vietnam, the software was in English as no local language option was available at the time, so the students used Google Chrome browser with the Translate feature turned on to provide some native language support. Easy-to-use data dashboards with traffic-light indicators, suggestions for grouping children who struggle with a particular concept, and the creation of lesson plans with Khanmigo all enhanced the teacher experience.

Connectivity

Many high-tech tools assume stable access to the internet for real-time data tracking or AI-driven personalisation, however, in multiple HTHT pilots, intermittent or no connectivity is the norm. If this is the context of the HTHT pilot, tools should be able to work in the reality of the context, for instance by being able to function offline and sync later, or operate in low-bandwidth environments. In the Philippines pilot of HTHT, the project brought in Starlink terminals for schools; in one elementary school, teachers and school leaders mobilised community fundraising to upgrade the ICT laboratory.

Device Access

Who has access to devices – and how often – shapes the HTHT delivery model. HTHT design needs to reflect device ratios (1:1, 1:many), types of devices (PC, laptop, tablet, smartphone, projector), and equity of access across gender, classrooms, and location. In Cambodia, for instance, some HTHT students used a device rotation model, in which two students shared one device, resulting in half the dosage as the students with a 1:1 ratio. Teachers then designed complementary offline activities for the students who had rotated off the device. These students still achieved statistically significant results in learning outcomes, although these were lower than those of students with higher usage.

Electricity and Power Stability and Technical Support

Reliable power is critical as charging stations, battery life, and school infrastructure (e.g., solar backup) all impact whether and how HTHT can be used. In the Philippines, teachers planned flexible scheduling to adapt to electrical and power challenges. Systems must also plan for local tech support (e.g., school-based champions or district IT staff), replacement and upgrade cycles, and budgeting for repairs, spare parts, and support infrastructure.

Initial and ongoing teacher professional development

The success of HTHT depends not only on the quality of the technology, but also on the people who interact with it – teachers, principals, teacher trainers, and the broader support ecosystem. HTHT aims to help shift the role of the teacher, from delivering content to guiding thinking, personalizing support, and cultivating motivation. Teachers are the bridge between learners and technology; they interpret adaptive data, mediate emotional learning, and ensure inclusion.

Teacher Beliefs and Ownership

Teachers must understand the *why* behind HTHT. When they see technology as a support, rather than a threat or extra responsibility, they are more likely to adopt it meaningfully. This requires investing in mindset-shifting professional development and giving teachers agency in how tools are used. In the Philippines, the first day of HTHT training focused on mind-setting and visioning. This aimed to align teachers with the core values and objectives of the HTHT programme, encouraging them to explore and reaffirm their commitment to transformative education. In Vietnam, teachers were engaged in all areas of project design, curriculum mapping, development of instructional videos to embed in the software, and in developing exercises to help the students practice their problem-solving skills working together in small groups. This created strong buy-in.

Pedagogical Competence in Digital Contexts

Beyond technical training, teachers need to be trained and supported in pedagogical strategies that align with HTHT tools. This includes how to provide differentiated teaching; use effective pedagogical practices; interpret and act on learning analytics to provide additional support to some students; and facilitate collaborative and active learning techniques. These topics were the focus of the initial training and continuous professional development for HTHT across all countries. In Uruguay, teachers were also trained in project-based learning to use alongside and to complement the maths software.

Professional Learning Ecosystems

HTHT implementation needs to link to **continuous professional development**, not just one-off trainings. Peer learning communities, embedded coaching, and on-demand support can help teachers iterate and grow. In the Philippines, while initial teacher training established a strong foundation, it was clear that deeper, sustained coaching was essential – particularly around interpreting platform data and applying it to real-time instructional decisions. Teach For

Cambodia created a space for regular professional learning community sessions for teachers to reflect on their HTHT experiences, share challenges and strategies, and learn from one another. In Uruguay, teacher peer groups were formed and provided with access to an online learning management system where they could discuss questions about HTHT and coaches sent them WhatsApp messages to keep them motivated in applying HTHT. In Vietnam, university students from VNU Hanoi in their fourth year of maths teacher training joined HTHT classes as teaching assistants to provide additional support.

Leadership Support
Principals and supervisors must model support for HTHT. A culture of coaching, not compliance, enables sustained adoption. In many successful HTHT pilots, school leaders became early champions and problem-solvers. In the Philippines, school leaders reinforced HTHT routines by participating in coaching discussions, supporting teachers in troubleshooting classroom challenges, and ensuring that technology and learning spaces were ready for use each week. Principals also contributed to strengthening community engagement, communicating with parents about the programme, and coordinating with barangay and local government partners when issues related to infrastructure or logistics emerged.

Ecosystem approach

Scaling HTHT cannot succeed through schools alone. It requires the strategic alignment of multiple actors: ministries, technology providers, donors, teacher unions, researchers, and communities. Creating the conditions for HTHT to thrive at scale requires early and ongoing engagement with actors who influence funding, trust, regulation, public perception, and technical capacity. A few of the ecosystem actors for policymakers to partner with are mentioned below.

Government Leadership and Cross-Ministry Coordination
Ministries of Education, ICT, Finance, and Public Administration all influence HTHT success. The Ministry of Education is often the anchor institution, but must coordinate with others to ensure coherent policy and funding; alignment with electricity, connectivity, and digital infrastructure rollout; and shared data governance frameworks.

School and Community Engagement
Parents, school boards, and local authorities influence adoption. When HTHT is viewed as "external" or "temporary," it stalls. Successful programs engage parents and the community early (e.g., through information sessions or parent dashboards), support principals in communicating value to their communities, and build community ownership through storytelling and local data sharing. In the Philippines, a community launch that showed the tools to be used created strong buy-in; one of the communities went on to raise funds to upgrade their ICT laboratory, demonstrating clear ownership.

Teacher Training Institutions

Working closely with teacher training institutions is important when considering how best to scale and sustain HTHT approaches. In Vietnam, teacher training was held at a university; faculty who train teachers were invited to participate in the training. The project also engaged maths teacher trainees in their fourth year of university who were trained to provide in-class support to teachers and students by explaining technical terms in English and Vietnamese, instructing on how to use ALEKS, and supporting classroom management.

Public-Private Partnerships

HTHT typically involves edtech companies, platform developers, or local startups. Partnerships must be structured for public good, not vendor lock-in; promote evidence-based procurement; enable iterative design and responsive support; and be cost effective for the government. In Korea, Education Commission Asia established an edtech consortium with more than 30 edtech companies, which acted as a convening platform for the sector, brokering partnerships, sharing knowledge and best practices, generating evidence, and encouraging greater HTHT innovation.

For more information on the HTHT approach, please see this overview of High Touch High Tech for All. Download country reports for Vietnam, Uruguay, Cambodia and the Philippines, where HTHT been piloted so far.