

TOY EIGHT HOLDINGS Inc.

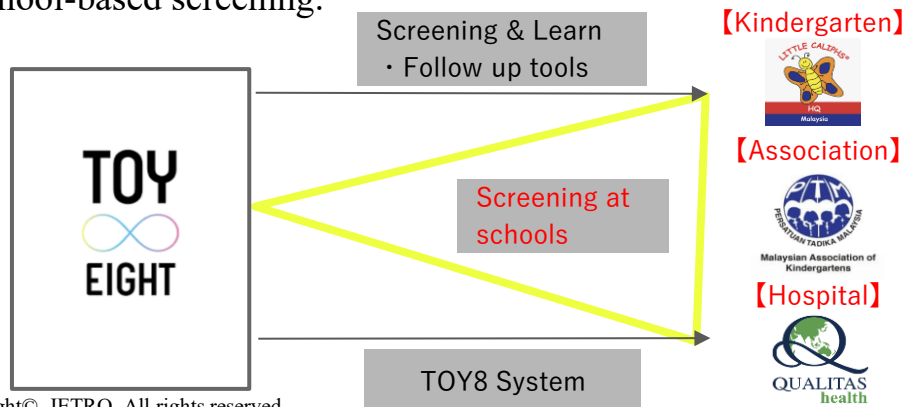
Demonstration Project on Democratizing Digital Developmental Screening in Malaysia

Objective of the project

In Southeast Asian countries where developmental screening systems have yet to be established, opportunities for early detection and early intervention of developmental delays remain limited. This project aimed to address this challenge by disseminating a smartphone-based digital developmental screening tool across medical and educational settings in Malaysia and building a system capable of delivering reliable screenings at low cost, even in the absence of specialist physicians.

Cooperation with local companies/governments

In partnership with Qualitas Medical Limited, Little Caliphs International, and the Malaysian Association of Kindergartens, the project worked to broaden access to screening through clinics and to support the adoption of school-based screening.



Targeted economic/social issues

Across Southeast Asia, the lack of developmental pediatricians and insufficient funding have left developmental screening systems underdeveloped, allowing early signs of developmental delay to go unaddressed, resulting in missed opportunities for early intervention and delays in the establishment of developmental support and social service systems. The Asian Development Bank estimates that Malaysian students lost 0.67 of a learning-adjusted year of schooling to COVID-19 school closures — nearly twice the Southeast Asian average of 0.35, and the second-largest loss in the subregion — yet mechanisms to assess how this disruption affected the development of preschool-age children remain limited.

Meanwhile, a field survey conducted by our company found that 88% of parents of children aged 3–5 in urban areas expressed concerns about their children's development, and 96% indicated that they would like their child to undergo developmental screening, reflecting extremely high latent demand. Existing developmental screening services present significant barriers — waiting periods of up to five years and high costs — and access remains difficult, particularly in rural and remote communities. While the Malaysian government designated education digitalization as a priority in its 2021 Digital Economy Blueprint, limited developmental screening data means this digital infrastructure has yet to reach its full potential in early childhood, underlining the need for solutions that combine policy and technology.



TOY EIGHT HOLDINGS Inc.

Demonstration Project on Democratizing Digital Developmental Screening in Malaysia

Demonstration period

September 2023 – January 2026

Details of demonstration

With developmental screening systems underdeveloped across Southeast Asia due to a shortage of specialists and funding, opportunities for early detection and early support for developmental delays are being lost. To address this social challenge, the project promoted the use of a digital tool that provides smartphone-based, game-format screening and utilizes AI to analyze data and generate reports. The project pursued a dual approach through medical settings (Qualitas Medical, 350+ locations) and educational settings (Little Caliphs International, 400+ kindergartens); however, direct sales in medical settings proved difficult because screening did not align with the reasons most families were visiting the clinic, which led the project to pivot strategically toward state government channels. Particularly strong results were achieved in Sarawak, where an agreement was reached with the state government to build a digital tool-driven inclusive education ecosystem, securing a government procurement contract and enabling screenings for an additional 300 children through a partnership with Hong Leong Foundation. Clinical research with the Clinical Research Centre (CRC) under Malaysia's Ministry of Health confirmed AUC values of 0.82–0.84 — discrimination comparable to established screening instruments — in approximately one-quarter of the time required by conventional specialist assessment. The tool is a screening, not a diagnostic, instrument.

Project outcome/ future plans

As a key outcome, the project expanded adoption in school settings through developmental screening with Little Caliphs International, gradually scaling from an initial three kindergartens and conducting repeat screenings. Revenue from this single organization reached a record high, confirming strong demand for developmental screening in kindergarten settings and the business's growth potential. In Sarawak, a public-private partnership ecosystem was successfully established, with a trainer-of-trainers system led by certified trainers and an early intervention program implemented. Clinical findings were published in the international peer-reviewed journal *Frontiers in Pediatrics*, while evaluation of early intervention effectiveness suggested that sustained medium- to long-term support is necessary for children with higher support needs to make continued developmental progress. Going forward, the project will prioritize rolling out the Sarawak model to other states, commercializing the early intervention program for private kindergartens, increasing customer lifetime value through repeat screenings, and expanding across ASEAN, with Indonesia, Thailand, the Philippines and Vietnam as priority markets.

