TOY EIGHT HOLDINGS Inc.

Early Childhood Education Digital Transformation Data System Enhancement for Post Covid-19 learning Project



Objective of the project

Efficient operation of educational databases is essential for teachers to understand the current developmental status of children and to prepare the best possible learning environment. This project aims to verify "the Design of a Student Record System after Covid-19" in collaboration with National Child Development Research Centre (NCDRC), which manages the database for early education, taking into consideration the future integration of the output of TOY8's digital developmental screening and the NCDRC management data, joint operation, and system construction.

Cooperation with local companies/governments

National Child Development Research Centre



Data Migration/ Integration / Upgrade

Targeted economic/social issues

In 2021, the Malaysian government announced the Digital Economy Blueprint as a national policy. Education DX is also listed as one of the priorities, with database management and digitization of evaluations as key issues. On the other hand, as in many ASEAN countries, the lack of a developmental screening system has resulted in incomplete collection of basic data in the area of early education, and the existing digital infrastructure has become a formality and is not functioning efficiently. Prior to this project, discussions with our partner, NCDRC, focused on the awareness that one of the bottlenecks in the creation of a data-based learning curriculum is the lack of a "Student Record" that can be passed on from grade to grade and school to school as children grow and move on to a school of higher grade. In particular, to create an adaptive environment by recognizing children in need of attention and intervening early, records of the screening results and handover reports should be passed on. We aim to solve this issue by digitizing the format in line with the Malaysian context, with reference to the Japanese education system.



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Research Centre



Ministry or Health

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Demonstration Period

September 2022 – April 2023

Details of demonstration

Verified data items that could be obtained from both TOY8 and NCDRC and scrutinized the information required for the Student Record. Data integration guidelines, including a revised classification, were created. Interviews with schools (teachers) were conducted to better understand the issues faced by schools in the current circumstances, while teachers experienced the UI to confirm the usability of the mock-up to be created in this project. The results of the interviews were reflected in the design of an effective and versatile student record system. A subcommittee was established within Sultan Idris Education University with NCDRC to organize the requirements for the system that will serve as the basis for the development of a post-covid-19 learning curriculum, and the issues raised in the study process and our solutions were summarized in the final proposal.

Project outcome / Future Plans

This project outcome is remarkable, in which the project proved a method operating a student record system by integrating the results of developmental screening and the national child database to be efficient.

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In fact, MIGHT, a public-private business creation initiative under the Prime Minister's Office, recognized the versatility and potential of digital developmental screening and led to budgeting for the implementation of the screening for the B40 (Low-income groups) in Sarawak and Selangor states. At the federal level, the tool validation project has started with the Clinical Research Centre under the Ministry of Health. The clinical research results and cost-benefit analysis report are scheduled to be filed in October 2024. We will strive to continue advocating the government of Malaysia and other ASEAN countries making developmental screening mandatory. On top of that, the company is allocating the biggest resources to the development of an automated Early Intervention Program after health checkups using AI.

