IMS GLOBAL LEARNING IMPACT AWARD

April 2019

CHALLENGE

Technology disrupting 21st Century skill demands

- As the 21st Century becomes dominated by Artificial Intelligence and Digital Devices, jobs will be disrupted – A "Revolution" and paradigm shift in education is needed.
- Our children must be equipped with 21st Century Digital Literacy skills that includes Computational Thinking ("CT") to meet the demands of the digital economy.
- The "Revolution" is gaining momentum as Global NGOs (e.g. UNICEF) and governments (e.g. U.S. and EU) embed and integrate CT as the new literacy in compulsory education. Singapore has even decree "Computational Thinking as a National Capability".

Neuroscience shows best learning occurs at youngest age

- Highest cognitive developmental impact to a child's brain occurs between the ages 0 to 6 years old.
- CT as fundamental literacy must be taught from the youngest age so that children can build a strong foundation in cognitive abilities essential to lifelong learning.
- Every child should have equitable access to quality and sustainable CT education[1].

THE SOLUTION

Global team of experts

- Proprietary solution for preschool educators - the **World's 1st Computational Thinking Curriculum,** *School of Fish* ("SoF"). Developed after months of extensive R&D by our global team of experts in early childhood education, world-class game and animation design, pediatric neuropsychology and digital technology development, our Curriculum then incorporated active engagement and feedback from pre-schools, teachers, parents and children.

Bringing Entertainment, Education & technology together

- Following our motto, **Engage, Entertain, Enlighten** - SoF is a child-centered curriculum inspired by the Montessori teaching pedagogy that "Children learn best when they are having fun". In this aspect, SoF[2] has achieved several "1st" (1) Introduced full CT concepts to pre-schools; (2) Simplified learning of complex CT concepts through gamification & delivered through mobile apps; (3) Created a story-based curriculum using a personal avatar and 3D animation; and (4) Developed a holistic curriculum, blended with multi-sensory online & offline activities.

LEARNING IMPACT OUTCOMES

Children develop foundational CT skills. The opportunity to interact online through digital tools also help children develop **important Digital Intelligence ("DQ")[3] habits** such as **proper online etiquette ("Netiquette")**, **online safety** as well as **self-regulation and financial literacy.**

Survey done after implementation in Carpe Diem preschool to over 100 children over 2017 to 2018:

- Children showed interest in learning new things
- Children start exploring with patterns and sequences
- Children displayed faster ability to learn new subjects and topics

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[1] *UNDP's Sustainable Development Goal (SDG) 4.2 – "ensure all girls and boys have access to quality early childhood education"*
[2] *Sited by respected global EdTech report – NMC/CoSN Horizon Report 2017 as "Innovative curriculum in teaching of CT"*
[3] *DQ or Digital Intelligence is a comprehensive set of technical, cognitive and social-emotional competencies that enable individuals to face the challenges of and adapt to the demands of digital life developed by DQ Institute*

- Children are more active in communication and sharing with their peers

SoF's value proposition is to create a positive experience for our key stakeholders:

1. Kids **LEARN DIGITAL LITERACY SKILLS** and **LOVE** our lessons;
2. Teachers find it **EASY TO ADMINISTER** and teach each lesson;
3. Schools can **QUICKLY DEPLOY** our Curriculum; and
4. Parents **SEE RESULTS** and immediate learning outcomes