MAKING “LEARNING THROUGH PLAY” A REALITY

LEGO EDUCATION (DENMARK / EDUCATIONAL SOLUTIONS)

SUMMARY: Changing How We Learn
Recognizing that children learn by playing with their LEGO® bricks, the LEGO® Group deliberately created tools for teaching and learning. The new division that it created for this purpose – LEGO® Education – has evolved since its inception in 1980 to be a provider of learning solutions that brings subjects to life and makes learning fun. LEGO Education also ensures that LEGO products are relevant to children as both toys and educational tools. Initially, the division focused on bringing low-cost solutions to Science, Technology, Engineering and Mathematics (STEM) education and has since expanded its products to help children learn better cognitive and creative skills through literacy-focused products to support playful learning in schools.
THE EDUCATION ISSUE
It is essential that education equip the world’s children and youth with the understanding, knowledge and skills necessary to face the opportunities and challenges of a rapidly changing world. There is growing evidence that a bias towards rote learning and high-stakes testing is stifling critical thinking, creativity and the ability to implement a learner-centric model of education. This coupled with a waning interest in STEM will have consequences for the future development of society. The United Nations also recognizes that education is indispensable for addressing issues of poverty, socio-economic divides and economic growth.¹

THE BUSINESS CASE
Driven by the Kristiansen family’s (now in its fourth generation of private ownership) vision to put LEGO products at the center of learning, the LEGO Group strives to foster innovation in education to deliver a fun and meaningful learning experience. Through LEGO Education, the LEGO Group aims for its products to be relevant anywhere a child can learn through play.

PLANNING FOR IMPACT
Founded in 1932, the LEGO Group began manufacturing its LEGO bricks in 1947. By 1980, LEGO was a household name and toy recognized around the world. At that time by some estimates, 70% of all Western European families with children under the age of 14 had LEGO bricks in their homes.² The LEGO Group recognized that educators and children used LEGO bricks in the classrooms and decided to explore how these products could be used as teaching and learning tools to improve the classroom experience and learning outcomes.

The educational community generally understands that hands-on learning can be more motivational and effective than some other learning processes. The LEGO Group recognized the long-term impact it could have in developing a skilled workforce by creating products that are not only fun but can also be used to teach STEM and literacy skills. To this end, the Group created LEGO Education in 1980 to manufacture educational products under the LEGO brand.

LEGO Education is able to balance the need to be profitable with its desire to impact learning outcomes by focusing resources on the most effective approaches and processes.

THE INVESTMENT
Following its inception in 1980, LEGO Education grew for the next 17 years. In 1997, LEGO Education began to expand and shifted its focus to making itself an education company that is also a toy company.

In order to fill the internal gap in education expertise and develop education capabilities and capacities, rather than outsource or bring in external consultants, LEGO identified a number of innovative business models while maintaining the LEGO culture and ethos of “only the best is good enough”.

LEGO Education also identified partnering with existing education companies around the world as the best way to create an education business that is scalable, sustainable and consistent with LEGO Education’s corporate value of maximizing the impact on the learning outcomes of children. This provided the company with the flexibility to experiment and foster an entrepreneurial spirit necessary for driving innovation.

LEGO Education invested in building an education company through the development of its products for pre-primary through the beginning of secondary school. In the culmination of a collaboration with the Massachusetts Institute of Technology on developing computer-controlled LEGO products to facilitate STEM learning in 1998, LEGO Education introduced its flagship robotics product line, LEGO® MINDSTORMS® Education. With this product, LEGO Education is often credited as mainstreaming robotics as a learning medium for STEM education. LEGO Education solutions also include tools to help develop creativity, language and literacy skills, such as LEGO Education StoryStarter. These products allow teachers to be purposeful in their pedagogical approaches to learning through play.
BE SMART
Throughout its growth as an education company, LEGO Education has partnered with education experts, such as academic institutions and, as always, teachers, to fill gaps where it lacks its own internal knowledge and capacities. This enables LEGO Education to create products that are valued by educators as quality learning tools.

Being a profit-driven company requires LEGO Education to be outcomes-oriented. It only expands product lines that prove to be valuable to its customers while it scales back other products as they become less impactful due to changes in educator needs.

LEGO Education also promotes universal design for learning (e.g., using pictures rather than words in its building instructions) that does not differentiate between learning abilities and intended learning outcomes to make its products accessible and usable by everyone. These approaches help to promote equity and equality in learning.

OUTCOME & IMPACT
LEGO Education provides educators with easy-to-use solutions that bring hands-on learning into the classrooms through its products; these solutions are deliberately designed to align with research supporting student-centric learning and notions of play, explored further in the last five years through the work of LEGO Foundation. LEGO Education relies on academic research to demonstrate that its products improve learning outcomes such as STEM and literacy skills. There is also anecdotal evidence supporting the belief that LEGO products provide inspiration to future engineers, scientists and other STEM-related professions.

Research in the United States shows that by 2020, 96% of jobs will require strong critical thinking skills and 70% will require mathematics and computational knowledge. Governments around the world – such as Peru and Singapore, and a variety of local and state agencies in the United States – are using LEGO Education solutions to provide foundational building blocks of creativity and innovation that are essential to develop a skilled workforce.

LEGO bricks are relevant in homes, schools and other learning environments and have global brand recognition that parents and teachers view as both educational and fun.

LESSONS LEARNED
To successfully transform itself as a company, LEGO Education made a long-term commitment to obtaining capacities and capabilities needed to develop solutions for the education issues it aimed to solve. This also required strategic thinking around how to fund and grow the investment. Focusing on the long term enabled LEGO Education to evolve into a solution-driven company that remains relevant in the changing education landscape.

Investing for the long term also allowed LEGO Education to challenge and vet its approach. Although driven by a vision at the executive level, the company motto is applied to its process as well as its products and services. LEGO Education is able to balance the need to be profitable with its desire to impact learning outcomes by focusing resources on the most effective approaches and processes.

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