LearnOBots is a business whose products are marketed to schools. It believes in promoting learning and research culture through robotics. LearnOBots is based in Pakistan.

SPRING is a business accelerator programme funded by DFID, USAID and DFAT. It works with businesses to develop products that impact girls’ lives in 9 countries.

Coffey is the independent evaluator of SPRING. Coffey’s Business Performance Evaluation is part of the overall evaluation and examines the effects of SPRING on business performance. It also looks at how businesses are reaching adolescent girls.

LearnOBots began thinking about girls as a specific target group, which resulted in the design and inclusion of girl-oriented components within the RobotWala prototype (such as customisable hardware and software options).

SPRING Prototype and Business Goals

The LearnOBots SPRING prototype is RobotWala. It consists of a hardware robot that is used together with an e-learning platform, designed for students aged 8-14. The robot, called the ‘Buddy’, is made of a changeable base, a cuboid ‘brain’ that consists of a display screen with multiple uses, and a removable and customisable backpack used for different activities. Through SPRING, LearnOBots wanted to:

- Develop a product which is affordable to a wide group of children, including students from low-income communities.
- Devote time and get support to develop RobotWala as a viable and scalable product.
- Refine and expand its reach among girls from middle- and low-income backgrounds.

SPRING Support

Business Focused Support
SPRING supported LearnOBots in conducting user research, developing a marketing plan, and creating a new RobotWala brand identity (including a new logo, website, and user experience/interface design for the e-learning platform).

Financial Support
LearnOBots received Prototype Development Funding to develop RobotWala, which was used mostly to cover human resources and hardware development costs.

Girl Focused Support
LearnOBots began thinking about girls as a specific target group, which resulted in the design and inclusion of girl-oriented components within the RobotWala prototype (such as customisable hardware and software options).

The transition rate between primary and secondary education is uneven across Pakistan. Girls also face systemic discrimination. As a result, women are vastly underrepresented in STEM careers, making up less than 18% of all STEM professionals.

Girls are 45% of all primary school students. Only 53% of those girls move on to secondary school education in some areas.
Use of Human Centred Design

The introduction to Human Centred Design (HCD) was crucial. In applying HCD, LearnOBots:

- Developed its comprehensive e-learning platform, which aimed to remove the need for teachers or LearnOBots engineers to deliver the classes.
- Realised it would need to provide an orientation to using computers for students in lower-income settings.
- Learned that it would need to adjust the difficulty level of some activities by age and grade level.
- Customised its product to appeal to more girls.

Girl Insights and Emerging Signs of Impact

- A customisable robot makes RobotWala attractive and engaging since it caters to both girls and boys. LearnOBots has also adapted content on the e-learning platform to cater to girls and lower-income students. This includes:
  - Providing content in Urdu and eventually expanding to other regional languages.
  - Including characters with their head covered and in traditional dress.
  - Customisable colour schemes and characters to attract girls as well as boys.

- Teachers noticed a boost in confidence and learning of all students using RobotWala, particularly among girls.

- Students were better prepared in other classes after taking the RobotWala class and gained some competency in English because of the mixed Urdu-English programming.

- Girls were able to learn new things, which they could use in their everyday lives, such as using their phone for GPS.

Going Forward

LearnOBots has a good reputation in the market, and are discussing expansion to new schools. Additionally, it offers a comprehensive service (e-learning, assessment, hardware) that relies on low levels of human resources for delivery. It also permits the teacher to become a moderator rather than an instructor. Going Forward LearnOBots is:

- Considering a sharing scheme for RobotWala where franchise schools can opt for a system in which laptops, tablets and kits are delivered by the franchise to share between different schools.
- Refining its costing model. This will be an important consideration for LearnOBots as it grows, as the target for RobotWala is low-income families. Moving forward, if LearnOBots wants RobotWala to reach every type of classroom, affordability will be a key issue to address.

Further Reading