

Facilitating Product Design Project-Based Learning with VTECH Telecommunications Ltd.

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Abstract

This poster describes a project-based learning (PBL) module developed in partnership with VTECH Telecommunications Ltd., which engaged third-year product design students in designing consumer electronics for the global market. The module employed a structured 14-week framework, guiding students through phases of market research, user-centered conceptualization, and prototyping, supported by intensive weekly tutorials and mentorship. Outcomes included professional-grade product concepts, such as baby monitors and mobile accessories, which demonstrated competencies in market analysis, ergonomics, and design for manufacturability. The industry collaboration provided direct pathways for commercialization of standout projects and potential internships, bridging academic training with professional opportunities. Pedagogically, the module effectively equipped students with the practical skills and confidence required for careers in fast-paced, consumer-focused electronics design, highlighting the value of industry-aligned PBL in design education.

This module demonstrates the effectiveness of project-based learning in product design education, offering students a holistic experience that integrates technical skill development, sustainable innovation, market analysis, and commercialization. It provides a compelling model for equipping future designers with the tools to address real-world challenges while fostering creativity, technical expertise, and creative thinking.

Keywords

Work-Ready Graduates, Project-Based Learning, Design innovation, Industry Collaboration.