CoboChild: a blended mobile game-based learning service for children in museum contexts
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Abstract

Purpose – The purpose of this paper is to develop a blended mobile game-based learning service called CoboChild Mobile Exploration Service (hereinafter CoboChild) to support children’s learning in an environment blending virtual game worlds and a museum’s physical space. The contextual model of learning (CML) was applied to consider the related influential factors affecting museum learning and to promote children’s continuous learning and revisit motivations.

Design/methodology/approach – CoboChild provides a thematic game-based learning environment to facilitate children’s interactions with exhibits and other visitors. A practical system has been implemented in the National Museum of Natural Science (NMNS), Taiwan. A questionnaire was used to examine whether CoboChild can effectively fulfill the CML and to evaluate the impacts on museum learning.

Findings – CoboChild effectively fulfilled the CML to facilitate children’s interactive experiences and revisit motivations in the blended mobile game-based learning environment. Most children described the system as providing fruitful playfulness while improving their interpretations of exhibitions and learning experiences.

Practical implications – CoboChild considers the related contextual influences on the effective support of children’s learning in a museum, and builds a child-centered museum
learning environment with highly integrated blended learning resources for children. CoboChild has been successfully operating in the NMNS since 2011.

Originality/value - This study developed a blended mobile game-based learning service to effectively support children’s learning in museum contexts. The related issues are shown to improve the design of blended museum learning services. This innovative approach can be applied to the design of other child-centered services for engaging children’s interactive experiences in museums.

Keyword: Blended learning, Game-based learning, Mobile learning, Contextual model of learning, Child-centered design, Museum learning