Distance-Collaborative Design: An Approach to the Design of Children's Electronic Textbooks

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This paper describes a design approach, called Distance-Collaborative Design (DCD) which is used in the process of designing Malaysian children's electronic textbook (e-book) interface. Distance users are employed as design partners in order to elicit user requirements with users who live far apart from where the e-book is being developed. DCD has three major phases: initiation, construction and implementation. Initiation involves seven steps: identifying existing problems with teaching-learning materials, develop ideas to solve the problems, report on the rationale of choosing the idea, identify possible solutions, plan new system, develop conceptual model of new system and plan general requirements of the new system. Construction is iterative and consists of at least three mini-projects. Each iteration contains all the usual system development life cycle of analysis, design, development and evaluation and it tackles a small objective beginning with first objective to assess users' perceived usefulness of system concept. Firstly, however, this paper explains the concept of the e-book, whose design is based on a model which allows content to be presented by mixing graphic page mode, talking page mode, hypermedia page mode and web page mode. Each mode includes various activities which support and nurture as many children's intelligences and learning styles as possible.