

Comparing the Educational Effectiveness of eHealth to Deliver Health Knowledge between Higher Literacy Users and Lower Literacy Users

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Abstract : eHealth is undoubtedly emerging as a promising vehicle to provide information for individual self-care management. However, the accessing ability, reading strategies and navigating behavior between higher literacy users and lower literacy users are significantly different. Yet, ways to tailor audiences' health literacy and develop appropriate eHealth to feed their need become a big challenge. The purpose of this study is to compare the educational effectiveness of eHealth to deliver health knowledge between higher literacy users and lower literacy users, thus establishing useful design strategies of eHealth for users with different level of health literacy. The study was implemented in four stages, the first of which developed a website as the testing media to introduce health care knowledge relating to children's allergy. Secondly, a reliability and validity test was conducted to make sure that all of the questions in the questionnaire were good indicators. Thirdly, a pre-post knowledge test was conducted with 66 participants, 33 users with higher literacy and 33 users with lower literacy respectively. Finally, a usability evaluation survey was undertaken to explore the criteria used by users with different levels of health literacy to evaluate eHealth. The results demonstrated that the eHealth Intervention in both groups had a positive outcome. There was no significant difference between the effectiveness of eHealth intervention between users with higher literacy and users with lower literacy. However, the average mean of lower literacy group was marginally higher than the average mean of higher literacy group. The findings also showed that the criteria used to evaluate eHealth could be analyzed in terms of the quality of information, appearance, appeal and interaction, but the users with lower literacy have different evaluation criteria from those with higher literacy. This is an interdisciplinary research which proposes the sequential key steps that incorporate the planning, developing and accessing issues that need to be considered when designing eHealth for patients with varying degrees of health literacy.

Keywords : eHealth, health intervention, health literacy, usability evaluation

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