Web-based Instruction for Adult Learners: An Asynchronous-based Delivery Model for Formal Lifelong Learning

Abstract

Advances in technology have been used to propagate formal lifelong learning (FLL) as a system of choice especially for the adult learners. The expansion of formal lifelong learning among the adults in recent years is due to the rapid growth of the Internet and increased availab''ity of Web-based instruction (WBI). WBI is becoming a favored teaching and learning optiυn in higher education. WBI is defined as an instruction via the Internet, Intranet, and Web only. In specific, WBI is a "hypermedia-based instructional program which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported. The challenge for educators and researchers is to meet the expectations of adult learners who are enrolled in formal lifelong learning and how to incorporate this Web-based instruction into their teaching practice and still retain their personal definition of high-quality teaching in the Web-based teaching environment. Unfortunately, the effects of WBI on success, perception and gender were not clearly demonstrated or insufficiently addressed. This is more so for the adult learners who are engaged in the formal lifelong learning using asynchronous-based WBI (A-WBI) which is a popular form of WBI. Therefore, there was an urgent need in the investigation of A-WBI with regards to gender, success and perception among the adult learners in formal lifelong learning courses. At the same time, A-WBI instruction requires more thoughtful attention to pedagogy and technology and to the settings in which learning can occur than with conventional education. There is great interest, therefore, in exploring how A-WBI can be designed and implemented for formal lifelong learning as there is no one fixed-way to implement an A-WBI. Thus, this paper attempts to address the following objectives: (i) To propose a framework for A-WBI to deliver lessons for adult learners who are enrolled in formal lifelong learning; (ii) To implement the proposed framework in (i); (iii) To explore adult learners' perceptions on A-WBI and how gender influences their perception on A-WBI; (iv) To explore the influence of this A-WBI on the adult learners' summative assessment (final examination component); and (v) To analyze the   relationship between adult   learners' interaction in A-WBI and their final exam marks. The objectives (i) and (ii) are achieved by using design and implementation approach while the objectives (iii), (iv) and (v) are achieved by interpretive case study methodology approach in which survey (in the form of questionnaire), content analysis using rubrics and final exam marks were used. Gender is the independent variable in this study while mean scores of perception for A-WBI, rubrics and the final examination scores are the dependent variables. The proposed A-WBI framework has been implemented at Open University Malaysia (OUM) which specialized in formal lifelong learning for an IT subject at the undergraduate level. The findings indicated that: (i) moderate learners responses (average value for the items in the questionnaire were between 1.96 to 3.77 in the Likert scale of 1 to 5) for the use of A-WBI when studying this course and this has led to the poor performance in the summative assessment among the adult learners; (ii) female learners are the high-risk group in A-WBI; and (iii) quality interactions in the A-WBI's discussion forum has a strong relationship with the learners final examination scores. Discussions on some possible reasons for these and recommendations are highlighted in this paper.