Instructional Design, Delivery And Evaluation Of Interactive Case Based E-Contents For Continuous Professional Development Of Physicians

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ABSTRACT

Background and purpose: *Studies have shown the advantages of electronic continuous professional development (CPD) for physicians. Developing case-based e-CPD activities, one of the popular formats of e-CPD programs, is difficult and time consuming. In this article we describe our experience of performing instructional system design for creating case-based CPD e-contents, for physicians in the Tehran University of Medical Sciences, Tehran, Iran.*

Methods: *We performed a five-step instructional system design (i.e. system analysis, design, development, delivery and evaluation) to create e-contents. We held several sessions with experts of the field to perform system analysis. Then we determined contents' framework and a plan for faculty members' (e-content providers) development and incentives. In the development phase, we held workshops for faculty members and trained e-learning advisors who would help faculties to create contents. Incentives were legitimized. Then we delivered programs to the learners who would fill a program evaluation questionnaire after completing the study of each program. The questionnaire consisted of 5 evaluative statements that were scored on 5-point Likert scales, ranging from 1 (strongly disagree) to 5 (strongly agree). It was validated by 10 e-learning and medical education experts. An exploratory principal factor analysis yielded to one factor, which accounted for 74% of the variance. All items displayed loadings above 0.90 on the factor. The questionnaire had a high degree of internal consistency (Cronbach's alpha= .95). The data were processed by SPSS (Version 17.0. Chicago: SPSS Inc.).*

Results: *20 e-CPD programs were developed and delivered to the learners. Totally 3644 learner-programs were studied. Participants rated the programs as 4.56 (SD= 0.65) on the 1–5 Likert-type scale.*

Conclusion: *Results showed that the learners rated this kind of learning activity very high. On the other hand we had some challenges for developing the contents. Performing a comprehensive instructional system design would help to overcome the barriers.*

Keywords: E-learning, case based learning, e-content, continuous professional development