The Research on the Case Learning Activity Sustained by a Web-Based Case Assisted Study Environment —Take the Introduction of Industry System Course for Example*

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Abstract. This article aims to introduce the study process and outcome of case learning activity sustained by a web-based case assisted study environment (or WebCASE for short), including the choosing of learning object, the implementing of study proposal and the discussion of initial conclusion. Our research mainly concerns problems from two levels: one is how to organize case study activities; the other is how to design effective on-line study environment to support case study activities. We exactly follow the design-based research pattern to improving our research result and conclusion, so we develop two sections of research work, as follows: prototype implementing section, practice research section. In prototype implementing section, we study the current situations of popular case databases all over the world and the requirement for online case study environment of users by literature review, questionnaire statistics, and personal interviews. Based on the initial requirement, we design and implement a prototype system of Web-based Case Assisted Study Environment, WebCASE. Research work and results of prototype system implementation can be found in. In practice research section, we study the case study activities supported by WebCASE prototype system, with the course "Industry System Introduction" provided by Professor Darong Lu as our reference. In this paper, we mainly concern problems in four aspects: first is the study environment, studying overall teaching effectiveness and main functions of WebCASE; second is learning object, studying how original cases developing in WebCASE systems; third is study process, how to organize case studies under the support by Web-CASE; finally is study evaluation, how to generally and effectively evaluate students' performance in case study activities.

Keywords: design-base research, web-base case assisted study environment, case-based learning activity, learning object, learning evaluation.

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