

# Distance Online Learning and Evaluation Framework

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## **Abstract**

*In this paper the authors present the concept of a system for Distance Object Learning and Evaluation (DOLE), which can be used during the teaching-learning process as a virtual learning environment. The term Distance Object Learning is used here for learning over a computer network or the Internet about real world entities that are distinguishable from others. The DOLE system concept uses standards for Learning Object Metadata (LOM) at different levels of abstraction. The objective of the resulting system is not only the correct and retrievable description of the course material covered by the LOM but also the further use of parts of the LOM data set for the generation of learning materials and students' learning development assessment, which can be represented by quizzes and tests. The Distance Object Learning and Evaluation system concept outlined in this paper is based in part on an earlier version of an E-learning Assessment System for Young learners (EASY). DOLE extends the concept of EASY by a learning component and by posing system generated questions with the help of a forward-chaining inference engine to find out about a specific item (object) of the domain of instruction. As the questioning process is bidirectional ("open" questions can be asked by the system as well as by the learner), DOLE is more targeted at advanced and adult learners than at young learners. The ultimate goal is to use the DOLE system concept as a part of a virtual college or university. .*

**Keywords:** Distance Object Learning, virtual learning environment, Learning Object Metadata

**Remarks:** The full paper may be found in [www.elearningap.com](http://www.elearningap.com)