

# A Study of Diagnosing Learning Disabilities with an Scaffolding Theory Based Online Testing System: An Example of Nature

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## ABSTRACT

At the present day, the technology of constructing e-Learning platform and its functions are growing maturity day by day. The learner is in such environment which is full of independence, but unable to know the drawbacks and obstacles encountered during the learning process. Therefore, the purpose of this research is to present a learning disability diagnosis system to diagnose the problems and obstacles encountered by the learners during the learning process.

This research basically uses the questions established by the experts to test the learners in the learning process and record each learner's test results. This system will diagnose according to the answered wrong in these tests. After that, apply the teaching principle of Scaffolding theory, the system will provide the concept which the learner seems to lack and proper a suitable learning path so that the learner can catch up with the learning schedule, be more willing to learn, and learn more effectively.

This system provides learners with a unique diagnosis and recommends learning path which is different from traditional score; teachers can also take the advantage to promote the teaching guiding principles. Experimental results of an elementary school nature and life science course have demonstrated that the novel approach benefits students and deserves further investigation.

Keywords : e-learning、scaffolding theory、ontology、learning disability diagnosis

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