Chapter 10
Designing Web–Facilitated Learning Strategy Guidance System:
Based on Young Learners' Learning Styles

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ABSTRACT

This chapter elaborates on the research the authors engaged in for improving young learners learning competence and effectiveness. This research investigates learning styles and learning strategies, based on which comes up with principles, contents and activities for the design and development of a Web-Facilitated Learning Strategy Guidance System (WFLSGS). A Quisi-Experiment is designed to test the function and implementation of WFLSGS and 3 distinctive findings comes out from the experiment: the research subjects' learning strategy level is generally low, thus learning strategies guidance is needed for improving learners learning effectiveness; the learning strategy guidance based on learning styles is effective for improving learning strategies, especially cognitive strategies and meta-cognitive strategies; the application of learning strategies is influenced by many factors such as teaching environment, learning content and learner self and so on. By designing and developing learning strategy guidance system, this study enriches the research of learning strategy and provides the teachers and young learners with operational advices and approaches to imporoving individualized learning competence and effectiveness.

INTRODUCTION

This chapter demonstrates the research the authors engaged in for improving young learners learning competence and effectiveness. The research was carried out at South China Normal University from 2007-2009, targeted at undergraduate learners. The objective of the research is designing an operable web-facilitated system to help young learners develop competences and effectiveness through understanding their individualized learning styles and guiding them to internalize learning strategies, thus they could learn a more efficient way to learn rather than only learning knowledge.

This research investigates learning styles and learning strategies as the underpinning philosophy, based on which comes up with principles, contents and activities for the design and development of Web-Facilitated Learning Strategy Guidance System (WFLSGS). A Quisi-Experiment was designed to test the function and implementation of WFLSGS at two sets of web-based courses at South China Normal University. As a result, 3 distinctive findings come out from the experiment: the research subjects' learning strategy level is generally low, thus learning strategies guidance is needed for improving learners learning effectiveness; the learning strategy guidance based on learning styles is effective for improving learning strategies, especially cognitive strategies and meta-cognitive strategies; the application of learning strategies is influenced by many factors such as teaching environment, learning content and learner self and so on.

By designing and developing a learning strategy guidance system based on learning styles, this research enriches the study of learning strategy and provides the teachers and young learners with operational advices and approaches to improving individualized learning competence and effectiveness. This chapter introduces the research by giving a snap shot of the context, literature review, system design and development, as well as the test results of the research.

CONTEXT OF THIS RESEARCH

One of the important goals of education is to help learners "Learning to Learn", the ability of students to become independent learners. On April 11, 1996, UNESCO issued the report "Learning—the Treasure Within" which placed "Learning to Learn" as the core concept of education in the 21st century. Learning strategy is a measure and distinctive symbol of learners competence to learn and to think (Gao, 2000). Adequate use of learning strategies can improve student learning outcomes (Weinstein & Alexander, 1998). Modern scientific research results showed that: learning effect = 50% Learning Strategy + 40% effort + 10% intelligence. Learning strategies, to a large extent, determine the learning outcomes so the approaches to helping learners grasp effective learning strategies will improve their learning results.

Good teaching includes teaching the student how to learn, to memorize, to think and to motivate oneself (Weinstein & Mayer, 1983). Winogrand (1989) maintains that the purpose of teaching learning strategy is to help students actively engage in self-learning, information processing, problem solving, making good use of the brains, and actively choose strategies for effective learning, so that students in the process of learning have always been filled with selective options and of high level of thinking. There is a Chinese ancient saying that "Give a man a fish is not as good as delegating him how to do fishing." China has always attached great importance to the learner's learning ability. The core of learning ability are comprised of self-regulation, self-regulation is, in turn, the core concept of learning strategies that learners need to master in the process of grasping learning strategies.

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