A Study on Relationship between Metacognitive Strategies and Online Learning Behavior
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Abstract:
Based on the researches of learning strategies by scholars both abroad and at home such as Rubin, Nunan, O’Malley & Chamot and Wen Qiufang, 93 students from thirteen different majors in Beijing University of Technology are surveyed about their use of metacognitive strategies and self-learning on line for one semester by using Wen Qiufang’s Questionnaire on English Learning Strategies and online self-learning and testing record.

The three research questions are (1) Is there any difference among the subjects in the use of metacognitive strategies? (2) Is there any difference in the time and frequency of online self-learning and testing between groups different in using metacognitive strategies? (3) Is there any relationship between the use of metacognitive strategies, the time of online self-learning, the frequency of online testing and the final test achievements?

Mean value difference of Independent Samples T test of test achievements groups shows that there is a significant difference between high and low mark groups in cognitive management strategies (t value is 2.152). The high mark group uses more cognitive strategies.

Mean value difference of Independent Samples T test of cognitive strategies groups shows that there is significant difference between high and low mark groups in online self-learning (t value is 1.269) with the high mark group of cognitive strategies spending more time in average in self-learning than low mark group; there is extremely significant difference between high and low mark groups of cognitive strategies in online testing (t value is 3.558) with the high mark group students doing many more times of online testing.

Correlation analysis of online self-learning & testing and test achievements shows that online self-learning (hours) and test achievements are positively correlated (0.599); online testing (times) and test achievements are positively correlated (0.498); that is, the more online self-learning and the more times of online testing students have, the better their test achievements are.

The above analysis results suggest that students who are better aware of the use of cognitive strategies show initiative in learning, having better self-learning ability and test achievements. It agrees with Wen Qiufang’s research result. Therefore, we can train metacognitive learning strategies accordingly by analyzing students’ efforts first, hoping to improve test achievements of poor learners and train their ability.

Key words:
- on-line learning; metacognitive strategies; self-learning ability; test achievements