

Study on Applying of Creative Thinking and Information Teaching into the Courses of Special Topics Making ---Take Training Contestants for Scientific Exhibition as an Example

Authors:

Shao-Tsu Chu, Doctoral Student at Department of Industrial Education, National Taiwan Normal University, shao.tsu@msa.hinet.net

Yu-Wen Chu, Electronic teacher at National Nan Kang Vocational High School, shao.tsu@msa.hinet.net

Yir-Hueih Chung, Doctoral Student at Department of Industrial Education, National Taiwan Normal University, y0514@cc.ntnu.edu.tw

Abstract — The purpose of this study was to apply information technology and self-made teaching medium into the courses of special topics making.

Carry out teaching activities in coordination with methods of creative thinking teaching, collaboration study, diversification measurement and etc., there are two major parts, i.e., self-made teaching medium and teaching activities.

The first part, use Microsoft Power Point, Microsoft Publisher and Hyper Cam, these three software to make self-made teaching medium.

The second part, take creative thinking teaching to encourage students to have divergent thinking and convergent thinking, and design the teaching activities by bringing up assumption questions and draw up the methods for solving problems. After the investigation of willingness and basic aptitude test, there are 12 objects of study selecting from the students in the four classes of information program in the second grades of technical and vocational school, and carry out an experimental teaching to them for six months.

The discovered results from the experimental teaching were, students could realize the thinking process of the whole question clearly, finished products of special topics could be modified and improved independently, adopt information software to assist teaching could promote students' absorb ability and increase study efficiency. The three set of finished products from teaching activities are "Intelligent household administration system", "Intelligent automobile instrument panel control system" and "Mini conveyer", in the name of the school, they participate in the scientific exhibition contest of high and elementary school in Taipei city, and they respectively won the Most Superior, Superior and Good awards in technical and vocational school of electron electronic and information division, and the one with Most Superior award got further award of champion in electron electronic and information division. The conclusion of the study is that if teachers could use this experimentation method more livelily, it could really promote talented students' ability in making of special topics and creativity.

Index Terms — Creative thinking; Information Technology, Courses of Special Topics Making, Training Contestants