

PBL-oriented Unit Integration and Team Teaching --Using Computer Science and English Courses in Senior Vocational High School as Study Case

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Abstract—*This research focused on the unit integration and team teaching, and used creative thinking teaching and problem -based learning methods as its major methods to teach students computer skills and English. These students came from the department of electronics in the senior vocational high school. This research also adopted the action research method in accordance with the creative thinking teaching and PBL methods to integrate the contents of two fields, that is, computer science and English, and to design team teaching activities.*

The research subjects were 40 first -year students in the department of electronics in the senior vocational high school. These 40 students were divided into six groups and had the same study theme of “A Beautiful Date.” The instructional contents were categorized into two units. In the first unit, the focus of English teaching was on the introduction of restaurant English, menu and food names while the focus of computer science teaching was on Microsoft Publisher Software and Internet IPR issues. In the second unit, the focus of English teaching was on western table etiquette and manners while the focus of computer science teaching was on Microsoft Power Point Software and the use, editing and application of computer audio and video devices. There were four instructional steps: 1) implement English situational teaching, 2) set up instructional goals for computer skill teaching, 3) implement computer skill teaching, 4) present creative works by students

This research found that, in the aspect of learning efficacy, unit integration and team teaching that combined the contents of both English and electronics -related subjects could really help increase students' ability to apply knowledge. According to the student feedback questionnaire survey, diversified contents and team work were able to arouse students' learning interest and help create a more harmonious atmosphere in the class. This research also pointed out that if a teacher knew how to design PBL teaching activities, followed the instructional steps, and offered students appropriate guidance, vocational students' English proficiency and their ability to apply and integrate computer skills could be greatly enhanced.

Index Terms — *English teaching, problem -based learning, team teaching, unit integration*