SUPATRA THICHAI : THE DEVELOPMENT OF COMPUTER ASSISTED INSTRUCTION TO SUPPORT STUDYING ON ANATOMY AND PHYSIOLOGY I IN "ANATOMY AND PHYSIOLOGY OF SKELETAL MUSCULAR SYSTEM" FOR THE FIRST YEAR NURSING STUDENTS. THESIS ADVISORS : ASSO. PROF. WANIDA JUENGPHASIT. M.Ed., ASST. PROF. PRANEE NINLAKORN, Ph.D., AND TEVAKARN RUNGROJ. 150 pp. ISBN 974-653-171-9.

The purposes of this study were to develop and test the efficiency of Computer Assisted Instruction to support studying on anatomy and physiology I for the First-Year Nursing Students, to compare the learning achievement between nursing students who study with Computer Assisted Instruction and nursing students who study with traditional Instruction, and to survey the students' attitude toward the Computer Assisted Instruction. The subjects consisted of 60 First-year Nursing Students Faculty of Nursing, at the Christian University, enrolling in Anatomy and Physiology of Skeletal Muscular System, during the second semester of the academic year 2001. By using a sample random sampling, the subjects were selected by ability group to be the control and experimental group. There were 30 students in the experimental group and 30 students in the control group. The experimental group was taught by a Computer Assisted Instruction; whereas the control group was taught by a traditional Instruction.

The instruments used for gathering data were; 1) two types of instruction on anatomy and physiology of skeletal Muscular System : a Computer Assisted Instruction and a traditional Instruction for the First-Year Nursing Students developed by the researcher; 2) an achievement test was focused on Physiology of skeletal Muscular System was used as a pretest and posttest; 3) a questionnaire was used for surveying the subjects' attitude on the effectiveness of the Computer Assisted Instruction.

The analysis of the t-test was used to analyze the data in order to measure the subjects' learning achievement before and after using the Computer Assisted Instruction. The mean and standard deviation of the questionnaire scores were used to survey the students' attitude toward the Computer Assisted Instruction.

The findings revealed that :

1. The effectiveness of the Computer Assisted Instruction was 90.17 and 90.12 percent for the formative test and posttest, respectively. This means that the efficiency of the Computer Assisted Instruction was good (higher than the 90 / 90 criterion).

2. The students' learning achievement after using Computer Assisted Instruction was significantly higher at the .05 level.

3. The students' attitude toward the Computer Assisted Instruction were highly positive.