



Implementation of Computer Simulation Software in Learning Low-Level Computer Language: A Case Study

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Abstract

- ◆ The study is concerned with the assistance of using simulating software in teaching students to learn low-level language.
- ◆ The purpose of the case study is to develop an understanding of the process of how teachers implement this software in the teaching of low-level computer language.

Compare Two Types of Research Method

Quantitative Research Method

- Questionnaires to different schools
- Obtain result
- Analysis data using SPSS tools
- Take longer time

Qualitative Research Method

- ❖ Choose students for target group and control group in my school
- ❖ Obtain result
- ❖ Analysis data
- ❖ Save time

How I choose my Topic of Research - Narrow down approach

Evaluate a software

Evaluate the effect of software for students

Evaluate an application software for my students

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How I choose my evaluation technique?



- Observation
- Literature review
- High-order thinking
- Use of feedback

Methodology

- ◆ Lot of related readings e.g. grounded theory
- ◆ Research population (target group and control group, age range, male or female)
- ◆ Interview questions (before and after, should be related to what I want to find, level of difficulties)
- ◆ Design of instruction manual (clear, Chinese, step by step)
- ◆ Pretest and protest (should be effective and measurable)



Findings



- ◆ Quantitatively
 - Pretest and protest results
- ◆ Qualitatively
 - Interviews result (before and after)



Influence



- ◆ Physical setting
- ◆ Software problem
- ◆ Collaborate learning
- ◆ Software design
- ◆ Gender difference
- ◆ Age factor

Summary, discussion and conclusion

- ◆ Software is easy to operate
- ◆ Arouse students' high-order thinking
- ◆ Improve self value
- ◆ Create better teaching environment
- ◆ Interactive environment
- ◆ Provide drill and practice
- ◆ Initiate high-order thinking
- ◆ Improve students' logic and planning skills
- ◆ Raise cooperative learning

Improvement and limitation

- ◆ Size of target group
- ◆ Analysis performance, reactions, responses, attitudes
- ◆ Extend duration of the period of research



End
