



Chapter 8

The Place of Homework in an Information Systems Tutorials

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This chapter presents findings from a study of Information Systems tutorials. The study sought to discover if the use of prescribed homework improved the learning of the students. In addition to their regular tests, examinations and assignments, students were given homework to complete. Students were surveyed using the College and University Classroom Environment Inventory (CUCEI) instrument before and after the experiment and several components of the study showed significant improvement for those students in these tutorials.

INTRODUCTION

Many universities share a common teaching pattern of lectures and tutorials. By tutorials we mean here small group “teaching” (of up to 20) students. These tutorials are usually based on problems (often drawn from the set text) intended to clarify and reinforce the concepts covered in the lecture, on the assumption that:

- the problems set in the tutorial are relevant to the lecture concepts and interesting in their approach;
- as the concepts being studied are difficult and important, they need the reinforcement offered by a successful problem solving tutorial; and
- the students are interested in the work (being at least sufficiently motivated to attend the tutorial session which is not compulsory).

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However the students do not usually gain as much as they should from these tutorials because they do not:

- review the lecture material;
- complete pre-tutorial exercises handed out in advance; and
- participate fully in tutorial discussions.

Accordingly, an action research exercise was carried out to see whether, as a result of undertaking a programme of prescribed homework study, students would:

- participate more readily and with greater learning achievement in tutorial activities;
- achieve more effective learning outcomes in the long term.

CONTEXT OF THE STUDY

Action research

Action research in education may be described as a collaborative and participatory approach to improving effectiveness by changing methods and learning from the consequences of these changes. It consists of critically examining the action of individual group members as a means of increasing knowledge about the process, and develops through a spiral of planning, acting, observing and reflecting. It was felt that action research with its assumptions of active participation in the process by the teacher was more appropriate than passive experimentation.

Tutorial/small group work

There are a number of possible approaches to tutorial or small group teaching. Those of relevance in this context are:

- The post-lecture tutorial that seeks to resolve any problems and reinforce the learning generated by the lecture. Strategies include the setting of discussion questions and problems, initially simple and becoming more complex; and the revision of lecture notes in the tutorial.
- Step by step discussion of the topic which follows a repeated pattern of *problem - tutor input - problem - tutor input*. This approach is particularly suitable for handling complex topics.
- Problem solving sessions where the thrust is on developing those problem-solving skills rather than reinforcing factual information. The approach here is to set out the problems in advance and have the students then discuss the solution or have it presented. Tutor-marked submissions are appropriate in this scenario.
- Case studies and simulations where the students work through stage-managed, structured action. These case studies and simulations may extend over several sessions.

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