

## Chapter 3.1

# A Simulation for Improving Teachers' Motivational Skills

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### ABSTRACT

A computer simulation for improving teaching is expected to remove the potential negative effects on real students while creating an environment that combines academic theories in an abstracted world of the classroom. simClass II is a teaching simulation which was designed to allow pre-service and in-service teachers to develop and exercise their motivational skills as they work within a Web-based, simulated classroom environment. This chapter aims to provide background knowledge and the basic logic for developing a simulation to help teachers enhance their skills in motivating students, with simClass II serving as a concrete

example. In addition, three phases—knowledge acquisition, exercise, and debriefing—are proposed for cyclical practice of these skills.

### INTRODUCTION

The quality of education in schools is largely dependent upon the effectiveness of teaching. This raises the following questions: What does teaching effectiveness mean? What can teachers do to increase the effectiveness of teaching, resulting in higher student achievement? By arguing that effective teachers are those who can achieve the intended teaching outcomes, it is implied that certain skills better facilitate learning outcomes

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(Cooper, 2003). Thus, teaching skill is one of the factors that affects the quality and efficiency of education and has a direct effect on learner achievement.

Although teaching skills are defined variously, it generally means techniques and actions to direct and prompt student's learning toward desired behaviors (Cole & Chan, 1987; Jarolimek & Foster, 1985; Rodgers, 1975; Wragg, 1984). Moore (1995) asserts that the skill of teaching consists of sub-skills, such as communication, motivation, reinforcement, questioning, and classroom management skills. Educators speak about skills for facilitating learning, skills for fostering a learning environment, and skills for inducing interactions between the teacher and students. Skills that promote motivation in students fit within this larger context of knowledge and practice that develops most fully with a teacher's experience. The ability to motivate students encourages them to participate in learning with willingness and purpose. The intensity of student motivation varies in direct proportion. In order to encourage a student to be more absorbed in learning, and spend more time on their tasks, teachers thus need to have an ability to increase student motivation levels.

However, it's unrealistic to imagine that all teachers practice all of those skills with their students. In a real classroom, any undesirable behaviors or mistakes by teachers cannot simply be undone. This makes it hard for teachers in training to have the opportunity to practice these skills in real situations. Brown (1999) noted that the current teaching practices for new teachers cause them to have a narrow and arbitrary approach to teaching, which then limits the scope for their developing new skills. He argues that teachers in training have no choice but to follow their supervisor's decisions, which is a safe strategy because they already understand that their indecision and misbehavior can negatively affect students. Perhaps the time has come for educators to seek a better way for teachers in training to

have the opportunity to practice specific teaching skills—through simulations.

Simulations can be a good alternative for training teachers in specific teaching skills. In a teaching simulation, trainees can experience an artificial environment and practice skills without any harm to students. In addition, the teaching environment can be accurately set for specific teaching practice and can give participants a chance to reflect on the process and results, and to trace the path of their actions. Thus, well-designed simulations can be expected to create a new kind of teaching environment combining academic theories with the abstracted world of the classroom.

simClass II is a teaching simulation which was designed to allow pre-service and in-service teachers to exercise their motivational skills as they work within a web-based, simulated classroom environment. This chapter aims to provide background knowledge and basic logic used in developing simClass II. In order to accomplish this purpose, some key literature related to the usage, strength, and limits of simulation for teacher training will be reviewed. Following this will be a discussion of how to promote motivation through classroom strategies via the procedures of a simulation. In the last section, expectations are reviewed for the next phases of research on teaching simulations.

## **SIMULATIONS FOR TEACHER TRAINING**

### **What is a Simulation?**

In computer terminology, a simulation is a program which models an artificial or natural system or process that allows users to interact with, make various decisions and reflect upon the results of their action (Nurmi, 2004). Importantly, many approaches to the definition and classification of simulations are based upon the objects which a simulation mimics, the tools with which the

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