Chapter 6
Applying Technology in a Classroom Setting, where Procedural Learning is the Focus

Elliott Currie
University of Guelph, Canada

EXECUTIVE SUMMARY

This chapter explores the use of Lecture Capture Technology in accounting courses that are taught using a five-stage learning model based on aviation training. The implementation of the technology in large classes exceeding 250 students is complicated by lack of attendance; this is addressed through technology by implementing an electronic Classroom Response System. Both systems have been further improved to effectively and efficiently provide readily accessible lecture videos and increase the rigour of the graded response system. Additional research is warranted to substantiate the anecdotal findings and research conducted in other arenas of education.

INTRODUCTION

This author has been teaching accounting for more than 14 years. Introductory courses are most frequently populated by students motivated by the need "to have to take" the course. Intermediate and advanced courses in taxation and management or financial accounting are primarily populated by students embarking on a career in the financial industry. In classes ranging in size from 26 to 564 students, the challenges of engagement, getting to know students and monitor progress daily as well

as ensuring appropriate or at least effective teaching procedures can be daunting in the least. Prior to teaching accounting, this author taught primarily by the case method in the areas of business policy and organizational behaviour. These classes were traditionally smaller, rarely exceeding 50 students and student engagement was easily monitored and encouraged. Attendance was reviewed regularly and each student was evaluated on their participation and involvement in the class discussions and their contribution to said discussions.

Historically, accounting class sizes at my current university rarely exceeded 45 in number but recently, with government restraint and increasing demand for professional courses, class sizes are now rarely below 100 students. Introductory courses are frequently taught in classes of 400 to 600 students. Compounding the complexity of the teaching environment is an increase in the number of students with English as their second language while English is the language of instruction, and an increasing percentage of students in the classes that are not commerce students, so student background knowledge is diverse.

This chapter explores the introduction of lecture capture technology to assist students with linguistic issues and the more recent adoption of electronic response systems to increase the engagement of the students in a large lecture environment.

BACKGROUND

Accounting, whether it is financial or managerial, is based on procedures and rules, many of which are internationally mandated and based on centuries old established practices. Taxation is even more rule based and the adherence to such rules is critical to success in the field of financial management. Compounding the subject matter are the various rules and theories that can grant differing perspectives and potential application of said rules to the recording and hence communication of financial position, transactions and future impacts. Taxation is even more complex as these rules and interpretations are complicated by political endeavours and encouragement, economic environments and legal interpretations. When this author was tasked with instructing accounting, he reached back into his past career as a flying instructor on which to base his instructional method and theory.

This method of aviation instruction is made of five phases:

1. Explaining the theory.
2. Demonstrating the exercise.
3. Permitting the students to attempt the procedure.
4. Correcting errors and confirming success.
5. The student repeating the exercise correctly.

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