# Chapter 76

# Understanding Strategies of Teacher-Student Interaction: The Impact on Student Experience and Learning Outcomes in Online Education

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### **ABSTRACT**

In this chapter, we discuss the application of teaching strategies as a vehicle for investigating teacher immediacy in the online environment. Through the presentation of a descriptive case study, the chapter explores the theoretical perspective of strategies that intend to reduce psychological distance in the online environment. Specifically, the issue of effective interaction is investigated, including: (1) the application of formative feedback practices; (2) the application of student self-assessment to encourage deeper learning; and (3) the integration of rubric use in assessment activities. The chapter concludes, recommending that practical application of teaching strategies such as: (1) using rubrics; and (2) encouraging student self-assessment, has the effect of enhancing teacher interaction and improving both the student experience and the student learning outcomes in an online environment. The chapter aims to contribute to the literature associated with online university education by validating best practices which assists in developing more effective online courses.

# INTRODUCTION

The proliferation of Internet based technologies has had a profound effect on a number of aspects of society, including university education, where the demand for online learning has grown exponentially (Baker, 2010). The growth in online university education offers a fertile ground for empirical based research on how and in what form this relatively firmly established (yet still advancing) medium could be used to improve the student learning experience.

There has been a profusion of studies that offer "no significant difference" regarding the effectiveness of face-to-face compared to online learning (for example, Hiltz, Zhang, & Tuross, 2002; Johnson, Aragon,

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Shaik, & Palma-Rivas, 2000; McLaren, 2004). As such, researchers are extending inquiry beyond the question of whether online educational delivery is as effective as the traditional forms of learning and are now exploring the area of identifying which strategies of instruction are most effective for the online delivery of a course. Swan (2003) asserts that the main epistemological issue with the "no significant difference" finding is that it disguises the real differences in the online medium that might specifically encourage particular ways of understanding or learning. Thus, researchers need to be less perturbed with the comparison of the value of offering online courses and more intent on understanding specific learner characteristics, models of learning, and the restructuring of curriculum. With that in mind, Grandzol and Grandzol (2006) argued that the extension of the research field beyond "no significant difference" with studies focused on empirically validating best practices are the most useful and influential as they can offer clear guidance for structuring and developing more effective online courses. This transition in research focus towards effective learning in online instruction is the impetus for this study, which sought to explore three specific strategies applied to the online educational environment as a way of further investigating teacher immediacy and its impact on student satisfaction with the quality of online course and teaching and the impact on student learning outcomes.

There is a need to extend the foundational research of instructor immediacy in traditional, face-to-face learning environments to online learning environments (Baker, 2010). Witt, Wheeless, and Allen (2004) conducted a meta-analysis of eighty-one studies that investigated teacher immediacy with respect to learning outcomes in traditional, face-to-face classrooms. Their study found a positive and significant relationship between overall teacher immediacy and overall student learning.

In this chapter we discuss the application of three teaching strategies as a vehicle for investigating teacher immediacy in the online environment. Theoretical perspectives are discussed, which challenge the delivery of online education, and provide a framework for the study. The three challenges discussed include: (1) the application of formative feedback practices; (2) the application of student self-assessment to encourage deeper and more meaningful learning; and (3) the integration of rubric use in assessment activities.

Theoretical perspectives are translated to teaching strategies and tested and discussed in a case study analysis. The descriptive case study research aimed to understand the application of these three practical strategies for improving teacher immediacy in the delivery of university online education, and the impact these strategies have on student overall satisfaction with the quality of the course and teaching in the online environment.

The findings of the case study are discussed within the context of the challenges identified. The case study considers the delivery of the same university course (Contemporary Aviation Management) over a 3 year period. Results of surveys regarding the student experience, and the data regarding the achievement of student learning outcomes are reviewed. Overall, the findings presented in the case study support the application of the three teaching strategies in effective delivery of the university course in the online learning environment.

The chapter offers a synthesis of the earlier discussion and findings, by providing two key solutions. The author recommends that university courses provided in the online environment need to be adjusted to enhance interaction. This may be achieved by: (1) using rubrics to promote transparency, and understanding of the requirements to achieve and demonstrate intended learning outcomes within the course; and (2) encouraging self-evaluation to assist student and teacher interaction that relates to personal student learning requirements.

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