Chapter 3
A Review of Research Methods in Online and Blended Business Education:
2000–2009

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ABSTRACT

This review of the online teaching and learning literature in business education found growing sophistication in analytical approaches over the last 10 years. The authors of this chapter believe researchers are uncovering important findings from the large number of predictors, control variables, and criterion variables examined. Scholars are employing appropriate and increasingly sophisticated techniques such as structural equation models in recent studies (16) within a field setting. To increase methodological rigor, researchers need to consciously incorporate control variables that are known to influence criterion variables of interest so as to clearly partial out the influence of their predictor variables of interest. This will help address shortcomings arising from the inability to convince sample respondents such as instructors, institutional administrators, and graduate business students on the benefits versus the cost of a fully randomized design approach.

INTRODUCTION

As blended and online teaching and learning become increasingly ubiquitous in business education, the pace of research examining these phenomena has accelerated dramatically during the last decade (Arbaugh, Godfrey, Johnson, Leisen Pollack, Niendorf, & Wresch, 2009). However, for the findings of this research to appropriately inform the practice of online business education, the studies should be methodologically rigorous. Recent reviews and studies of online teaching and learning research suggest that the general methodological quality of this research stream varies widely and often is lacking (Bernard, Abrami, Lou, & Borokhovski, 2004; Bernard, Abrami, Lou, Borokhovski, Wade, Wozney, Wallet, Fiset, & Huang, 2004; Means, Toyama, Murphy, Bakia, & Jones, 2009). Concerns of methodological quality led Bernard et al. (2009) to include a quality check in their recent meta-analysis of comparative studies of differing types of distributed education. Such reviews have under-reported studies of business education, in part because business education scholars often have not used experimental research designs with random assignment of subjects in designing their studies. However, because online business education scholars typically examine actual online courses where administrators and students control the composition of the research samples rather than the researchers, such designs often are not feasible. As the flexibility of the delivery medium is one of the prime attractions of online business courses for part-time MBA students whose priority is continuing in their jobs while getting their education (Arbaugh, 2005b; Dacko, 2001; Millson & Wilemon, 2008) it is unlikely that any institution would willingly randomly assign a student to an online or classroom-based section for the convenience of researchers. Thus, researchers who typically do not have the option of subject randomization but who are able to identify important background influences that could affect their subjects may consciously include such influences as covariates along with their independent variables of interest within their field research design. The use of such covariates is the only real practical design alternative in the field as most university administrators would reject a full randomized design, especially so with administrators from institutions where the majority of online instruction in business education is taught – masters comprehensive-level institutions (Alexander, Perrault, Zhao, & Waldman, 2009; Popovich & Neel, 2005), whose primary focus is on meeting education needs rather than research priorities. This field characteristic requires business education researchers to incorporate research designs that provide the advantages of randomized experiments as much as possible but without compromising student access or program/course offerings.

MAIN FOCUS OF THE CHAPTER

The purpose of this chapter is to examine and assess the state of research methods used in studies of online and blended learning in the business disciplines with the intent of assessing the field, recommending adjustments to current research approaches and identifying opportunities for meaningful future research. We review research from the business disciplines of Accounting, Economics, Finance, Information Systems (IS), Management, Marketing, and Operations/Supply Chain Management over the first decade of the 21st century. It is our hope that the review will help those interested in evidence-based course design and delivery identify exemplary studies and help future scholars raise the overall quality of this research in the business disciplines. We also hope that online teaching and learning scholars in other disciplines might use our approach to conduct methods reviews in their respective fields, thereby helping to inform the broader research community of appropriate research design and conduct.

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