Chapter 9
Achieving Bloom’s Two-Sigma Goal Using Intelligent Tutoring Systems: Application to Management Education

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ABSTRACT

Management education is engaged in significant programmatic reforms in response to the business community’s call for web-savvy, problem-solving graduates. Web-based intelligent tutors provide a readily accessible vehicle for enhancing business students’ learning performance as well as preparing them for the rigors of the global marketplace. A primary goal of these AI-based systems is to approach Bloom’s two-sigma learning performance standard via mastery learning techniques. Furthermore, intelligent tutors can also be used to identify students at risk, to formulate appropriate intervention plans, and to support team learning. Recent evidence suggests that achieving Bloom’s goal may be achievable on a routine basis by 2025. The purpose of this chapter is to highlight the growing potential for using intelligent tutors to enhance student and team learning opportunities and outcomes and to outline strategies for implementing this revolutionary process throughout the management education community of practice.

DOI: 10.4018/978-1-7998-2245-5.ch009

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INTRODUCTION

Business leaders, accrediting bodies, and management educators alike are calling for a paradigm shift in the content and delivery of management education because of globalization, continuing economic uncertainty, changing demographics, and new learning technologies (Buil, 2016; Dobson, 2019; Doherty, 2015; Philips, 2016). Business schools are now recognizing that digital technology can play an important role in improving both the learning process and learning outcomes (Ghemawat, 2017; Mohapatra, 2015; Damsa, 2019; Stosic, 2015). Specifically, the rapid growth in Web 2.0+ technologies has ushered in a new era for management education including virtual learning environments, intelligent tutors, web-based collaborative learning groups, and crowdsourcing. Additionally, the ubiquitous availability of mobile devices has encouraged educators to utilize this technology as a vehicle for accessing context-based materials, without the constraints or limitations of time, location and pace (Eschenbrenner, 2019). The increased use of learning technologies can help narrow the gap between a graduates’ skill set and the ever-changing requirements of business. For example, a survey sponsored by the Association to Advance Collegiate Schools of Business (AACSB) found that many management programs do not emphasize the skills desired by most hiring managers (Lubeck, 2015). These skills include evidence-based decision-making, ethics, and a focus on results and quality.

A number of the concerns such as the lack of integration and too little emphasis on problem finding, international dimensions, entrepreneurship, and practical experience have seemingly not been widely addressed [by the business education community]. Nor have many of the other competencies considered important by employers, e.g., motivation and commitment to the firm, creativity, quality focus, customer focus, ethics–integrity, teamwork, flexibility, and interpersonal skills (Herrington, 2013).

With globalization under increased scrutiny and an unpredictable global economy, the business community is increasingly focusing on adaptive and sustainable positioning strategies (Adbelaal, 2018; Kane, 2017). In that regard, the business community is looking for web-savvy graduates that are both problem-solving and entrepreneurial oriented. This is the ongoing challenge faced by the management education community. Even the business accrediting organizations have gotten into the act of critiquing business education. A report from AACSB (2016) found:
Fostering Inquiry in Science among Kinaesthetic Learners through Design and Technology
Nazir Amir and R. Subramaniam (2012). *Cases on Inquiry through Instructional Technology in Math and Science* (pp. 221-257).
www.igi-global.com/chapter/fostering-inquiry-science-among-kinaesthetic/62209?camid=4v1a

The Politics of E-Learning: A Game Theory Analysis
www.igi-global.com/article/the-politics-of-e-learning/147742?camid=4v1a