

Integrative Thinking as a Hallmark of Business Education

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Abstract

In this paper we expand on the notion of “integration” in terms of the variety of ways in which it would manifest itself in business education. Our main argument is that “integration” is multidimensional and has been manifest in pedagogy, research and service dimensions of university programs for a long time. However, assessments of “integration” efforts have been spotty thus far and only recently are being formalized. We present several examples in business curriculum and with increased focus on formal assessments of “integration” efforts, business education will become more pragmatic. The goal of this paper is to unpack the broad construct of “integration,” and discuss its historical and current manifestations in business education. Ultimately, we conclude that while the process of integrative thinking is well underway for a long time in business education, the assessment of outcomes of integrative thinking is just taking root through formal ETS tests. We believe that integrative thinking in business education is an ultimate indicator of the effectiveness of the business curriculum, as students skilled in this area will be best prepared for the real-life jobs in the market place.

Keywords: Integrative Thinking; Business Education; Experiential Learning; Bridges to Practice; Goal-oriented Actions

1. Introduction

Over time, business education has evolved to adapt to the needs in the marketplace. According to Mitchell (2007), business schools have consistently made significant changes in the substantive content of their MBA and executive offerings over the years. While these efforts proliferate in each of the functional areas of management, their impact on more integrative outcomes, like the “how-to” (practical) aspects in actual strategy formulation remain unclear, as strategy formulation is still largely seen as more art than science (Mintzberg, 2004). Similarly, Gioia and Corley (2002) laments business education’s role in the “crisis of corporate confidence” by arguing that current offerings in academia still do not promote the level of creativity required for successful strategy development. Hambrick and Fredrickson (2001) distill these concerns down to a simple question: “Can our MBA students really do strategy practice?” Datar et al. (2011) refer to this gap between theory and practical application a crisis in business education that can only be solved with greater “integration” between course content and the reality occurring outside universities.

Faculty who teach business courses have long recognized the need for promoting integrative thinking in their courses, especially when they teach functionally focused courses in specific disciplines such as marketing, management, finance, accounting and operations. Typical efforts of integrating course content with broader business concerns often takes place in the introductory and concluding sessions of these courses, so that students can see how specific course content helps to drive broader business decisions. Increasingly, many faculty have embedded a

continuous thread of integrative thinking aspects throughout the course (e.g., capstone courses in business education).

The goal of this paper is to unpack the broad construct of “integration,” and discuss its historical and current manifestations in business education. Ultimately, we conclude that while the process of integrative thinking is well underway for a long time in business education, the assessment of outcomes of integrative thinking is just taking root through formal ETS tests.

2. Literature Review: Integrative thinking in business education

Actions in business are intentional, goal oriented, and are undertaken to innovate, solve problems and create value. Drucker defines innovation as an “application of knowledge to produce new knowledge” (Drucker, 1993). New knowledge, excluding serendipitous discoveries, is structured by and emerges from extant knowledge. Such a view is consistent with Dewey’s (1938) theory of education which suggests that structured experience and prior knowledge form the bases of education. Thus, he argues for the use of a template, like a process map, to guide the student in defining and solving problems and ultimately achieving specific learning outcomes. Problem-based learning using template assignments have been compared to “those old dance lessons for which the instructor pasted footsteps on the floor (Bean, 2011, p.155) and to the music sheet that guides musicians (Crow, 2006). Simply put, template-based learning in education has been utilized for decades and has helped students learn concepts, tools, techniques and problem solving methods. It also helps guide student application of this information in solving new problems. This integrative thinking ultimately enables the learner to integrate theory into practice in ways that create value.

Research on the promotion of student integrative thinking reveals the importance of an underlying structure to guide learning. For instance, Vygotsky (1978) contended that structure leads to better focus and coherence in student learning outcomes. Building on Bloom’s (1956) taxonomy, Anderson and Krathwohl (2001) presented a structured framework, comprised of two major dimensions - the Knowledge Dimension and the Cognitive Process Dimension - that promotes innovative learning outcomes. A closer examination of their framework reveals an underlying structure that guides the gradual movement toward higher levels of learning called metacognition combined with creation. In short, recent research supports the idea that structure promotes creativity and better outcomes for students, with the latest pedagogical trends manifesting in the use of simulations (Aldrich, 2005; Anderson and Lawton, 2008) and games in order to structure creative thinking (De Freitas, 2006; Zagal et al., 2010).

As in business education, the use of structured frameworks to promote engineering creativity and R&D innovations have been in use within firms for a long time (Savransky, 2000; Rantanen and Domb, 2010). For example, Quality Function Deployment and options generating algorithms (e.g., TRIZ methodology for engineering solutions) are structured processes for generating inventive solutions (Yamashina et al., 2002; Chinta, 2009). In discussing problems in the management of innovation in firms, Van de Ven (1986) suggests that structure and framing leads to focus and better results for firms. Dougherty (1992) found that having definitive screening criteria promotes, rather than inhibits, product innovation in large firms. Consistent with this, Hamel (2006) argued that many of the most important innovations that currently shape management thinking, (from the old time- and- motion studies to current formalized strategic analytical frameworks) emerged as a direct result of the application of an underlying structure that brought focus and promoted high quality options to the problem at hand.

Deliberately structured creativity is manifest in templates across all functional areas in business. It is found in new product development (Ny et al., 2008); in project network templates to streamline innovations (Shenhar and Dvir, 2007; Larson and Gray, 2011); in drug discovery protocols (Karin et al., 2004); in analytical frameworks to screen out designs (Keast and Hampson, 2007); in control charts to determine process improvements (Langley, 1999; Goetsch and Davis, 2014); and even in strategic planning processes (Eden and Ackermann, 2013). Clearly, integrative thinking is illustrated in a variety of ways in both business education and in actual business practices. However, despite the wide usage of multiple methods designed to promote integrative thinking in business students, the impact on actual student learning outcomes has not been without criticism (Chari et al., 2003). As a result, a greater emphasis is now being placed on assessing the student learning outcomes in integrative thinking in business education and in developing comparable benchmarks that can assist business schools seeking to develop continuous improvement initiatives targeted toward student learning outcomes in integrative thinking. Recently, the ETS (Educational Testing Service) has developed a Major Field test that is designed to directly measure student integrative thinking. Its widespread use among business schools in the US. has resulted in “industry norms” for student learning outcomes in integrative thinking. Auburn University at Montgomery has adopted this ETS test to embark upon a continuous improvement initiative in improving student learning outcomes.

3. Conclusion

We believe that integrative thinking in business education is an ultimate indicator of the effectiveness of the business curriculum, as students skilled in this area will be best prepared for the real-life jobs in the market place. Bridging theory to reality in an educational setting gives students the requisite skills and “vicarious” experiences to be problem solvers with clear goals of value creation. Our review of the literature reveals that the process of inculcating integrative thinking in business education is well underway. However, the examination of the outcomes of integrative thinking are, relatively speaking, not as fully developed. The ETS test is a major step toward filling this gap in outcomes assessments of integrative thinking in business education.

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