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A CONSTRUCTIVIST VIEW: USING BUSINESS CASE COMPETITIONS TO ACHIEVE KNOWLEDGE-BY-EXEMPLIFICATION, AN ALTERNATIVE APPROACH TO INTEGRATIVE LEARNING

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ABSTRACT

This article will discuss the value of the case study method, particularly in the context of case competitions, for effectively teaching MBA students. It further examines how case competitions as near-direct learning engagements stimulate an alternative form of phronetic and mētistic learning known as knowledge-by-exemplification. Knowledge-by-exemplification is more directly linked to what must be cultivated within MBA classrooms if business schools are to better equip aspiring managers with the business skills needed in the real world.

INTRODUCTION

According to the Oxford English Dictionary (Simpson & Weiner 1999), the definition, and even the etymology, of the word "teach" is one of the most complex in the English language. Like a number of other abstract constructs, the verb, teach *v. tr. (tēch)* has few inherent definitions. Its meaning is generally derived from its context, and is inextricably bound to contemporary educational praxes and dominant technological advancements. Hence, one could argue that effective teaching today means "teaching without walls," using the latest web-based tools (such as podcasting, YouTube videos and any other online learning activities that can be accessed through a desktop computer, smartphone or any other mobile device) to connect with students around the globe. As impressive as it may be to send information around the world in a millisecond, we as business educators must work hard to not lose the meaning of the Oxford English Dictionary's most rudimentary definitions – teach *v. tr. (tēch)*: to show (a person) the way; to direct, conduct, convoy, guide (to, from a place). To show by way of information or instruction (1999: 687). The challenge, though is how best to teach business students in today's fast-paced, cyber-driven learning environment.

This article discusses the value of the case study method, particularly in the context of case competitions, for effectively teaching MBA students. The framework for case competitions emanates from the case study approach to business education which, in turn, traces its roots to the Piagetian theory of constructivist learning. However, using the case competition as a pedagogical tool extends beyond the constructivist learning paradigm to an alternative theory, termed by Chia and Holt as knowledge-by-exemplification (2008:471). According to the authors, knowledge-by-exemplification cannot be taught per se, only recognized in repeated and often nondeliberate expressions of personal disclosure using imaginative integration (2008:483). As such, business case competitions foster an approach to learning capable of allowing business educators to both appreciate and encourage knowledge, not for its conformity to traditional constructs, but for its practical resolving power.

CONSTRUCTIVISM

Constructivism is a theory of knowledge (epistemology) that argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas (Otte, 1995; Bednar, 1991; Jonassen,1991). The underpinnings of constructivism relate back to Socrates who first claimed that there are basic conditions for learning that are in the cognition of the individual (Apaydin, 2006; Kanuka & Anderson, 1998). Immanuel Kant later postulated that "objects conform to knowledge," as opposed to the widely held belief at the time that "knowledge conforms to objects." This shift asserted by Kant implied that the learner is an active and social constructor of meaning and learning. Within this context, each learner conceives his/her external reality differently, based on each learner's unique set of experiences with the world and his/her beliefs about them (Anderson et al., 1995).

It was not until Swiss psychologist, Jean Piaget advanced his theory of intellectual growth that the processes of conceptual as interactions between existing cognitive structures and new experience – cognitive constructivism - were emphasized in curriculum development. Piaget's theory of cognitive development proposed: Humans cannot be given information, in which they immediately understand and use. Instead, learners must construct their own knowledge. They build their knowledge through experience. Experiences enable them to create schemas – mental models of the world. These schemas are changed, enlarged and made more sophisticated through two complimentary processes: assimilation and accommodation [http://www.nwlink.com/~donclark/hrd /history on 12/05/10].

Widely used as an alternative to its opposite view of learning and teaching, objectivism (e.g., behaviorist, transmission model and information-processing), cognitive constructivism is based first on the idea that people learn by actively constructing new knowledge, not from the simple transfer of information. Secondly, cognitive constructivism asserts that people learn with particular effectiveness when facts and theories are put in context, brought to life and practiced (Biehler and Snowman, 1993; Eggen and Kauchek, 1994; Moesby, 2004; Slavin 1994; Woolfolk, 1995). Business case study

approach provides such an opportunity. Table 1 compares the tradition approach with the constructivist approach.

Table 1. Comparison of the Traditional versus Constructivist Classroom

Traditional Classroom	Constructivist Classroom
Curriculum begins with the parts of the whole. Emphasizes basic skills	Curriculum emphasizes big concepts, beginning with the whole and expanding to include the parts
Strict adherence to a fixed curriculum is highly valued	Pursuit of student questions and interests is valued
Materials are primarily textbooks and workbooks	Materials include primary sources of material and manipulative materials
Learning is based on repetition	Learning is interactive, building on what the student already knows
Teachers disseminate information to students; students are recipients of knowledge	Teachers have a dialogue with students, helping students to construct their own knowledge
Teacher's role is directive, rooted in authority	Teacher role is interactive, rooted in negotiation
Assessment is through testing, correct answers	Assessment includes students works, observations, and points of view, as well as test. Process is as important as product
Knowledge is seen as inert	Knowledge is seen as dynamic, ever changing with our experiences
Students work primarily alone	Students work primarily in groups

Source: Educational Broadcasting Corporation (2004), retrieved 12/12/10 from http://www.thirteen.org/edonline/concept2class/constructivism/index_sub1.html

The case study approach provides the student learner an alternative to cognitive objectivism. The case study approach challenges learners to "think" by using their experiences to actively construct understanding that makes sense to them, as opposed to the traditional passive learning of "being told." Consistent with constructivism, the case study approach provides a context in which students can use their experiences to actively construct understanding that makes sense to them, rather than as mere one-way "receptacles" of instructors' knowledge (Frerie, 2000; Tran and Latapie, 2007). Specifically, teaching with cases is reflexive of constructivist views of learning given the following characteristics of the pedagogy:

1. Relies on reflection and inquiry over learning facts.

2. Is a bottom up, favoring learning by solving concrete problems over memorizing theoretical concepts.
3. Reflects Kolb's four-step adult experiential learning model of (a) concrete experience with a real-life situation, (b) observation over reflection, (c) conceptualization and generalization, (d) testing of new concept in new situations.
4. Provides a mean to bring on a diverse set of individual experiences into the learning process, exposing potential mental biases from individuals.
5. Teaches learners to work with incomplete information and ambiguity (Banning, 2003; Kolb, 1984; Tran and Latapie 2007).

The Relationship Between Case Study And Case Competition

The business case study approach represents the convergence of constructivism from psychological theory and the case method from law and medicine. It was not until 1920 when Wallace P. Donham, a graduate of Harvard Law School was appointed Dean of the Harvard Business School (HBS) that the case method of teaching was adapted to the business curriculum. Largely due in part to a dearth of graduate textbooks, the Dean was able to convince the faculty to interview leading business practitioners and write detailed accounts of these practitioners' managerial experiences [http://harvardmagazine.com/2003/09/making-the-case-html on 11/28/10] in order to challenge students' problem solving abilities.

Since Harvard's introduction of this pedagogy, case studies have become one of the most effective means for blending authentic tasks with active and pragmatic applications of business theory (DeBoskey, 2009; Apaydin, 2008; Connor and Shaw, 2008). Today, the business case study method is used around the globe to engage undergraduate, graduate and executive student learners in understanding a plethora of issues related to subjects ranging from financial accounting to risk management to demography to ethics (Cagle and Baucus, 2006; DeBoskey, 2009; Hoyt, Dumm and McCullough, 2010; Swanson and Morrison, 2010). Moreover, research has been initiated to understand the efficacy of the case method of

teaching in the context of, the increasingly popular, online asynchronous learning environment (Chen, Shang and Harris, 2006).

Contemporary case studies attempt to reflect the pressures and considerations that managers confront in today's complex, global environment. The case approach uses open-ended problems to challenge student learners to develop managerial action plans for either fictional or non-fictional, and profit-seeking or non-profit organizations. From a constructivist perspective, a higher level of knowledge and skill acquisition occurs through this approach (Apaydin, 2008; Inkpen and Crossan, 1995). Meredith and Burkle (2008) studied a novel variation of the case method, the consultancy team. By working with businesses, student teams sought to bridge the gap between university abstract conceptualization and the concrete experience and active testing of industry so that their learning could be used in the innovation process (Helic, 2006; Parker and Moore, 2003; Rico, 2003). The consultancy team method of teaching and learning was developed to ensure that students achieve deep learning. Like the case study method, this approach is rooted in constructivism. As such, the consultancy team was designed to break through the limits of the traditional classroom in which the instructor transfers his/her expertise or knowledge to passive learners. That is, students must be active participants in the learning process. Through this method, students and instructors are seen as "co-inquirers" (Meyers and Jones, 1993).

While scientific studies have repeatedly shown that the "transmission of knowledge" model is not effective, it remains a stalwart of university teaching. In their 1999 book entitled, **In Search of Understanding: The Case for Constructivist Classrooms,** Brooks and Brooks argued the case for active learning by examining information retention rates through a number of lesson presentation styles. They found the following information retention rates:

1. Lecture = 5%
2. Reading = 10%
3. Audiovisual = 20%
4. Demonstration = 30%
5. Discussion Group = 50%
6. Practice by doing = 75%
7. Teach others / immediate use of learning = 90%

These findings corroborate the constructivist epistemology which asserts that active learning results in a greater understanding of the material presented, longer-term recall of the lessons and the development of greater problem-solving than traditional, passive learning (Ladd and Ladd, 2010: 201). Since the main idea of the business case methodology is to enhance cognitive growth, and help learners more effectively apply knowledge in complex, real world setting, then the business case competition represents a "capstone experience."

Through the business case competitions contextualize the collaboration between the classroom experiences of the business school and corporate leaders, wherein experiential knowledge and academic knowledge are intertwined (Kelliher et al., 2010:121). The business case competition necessitates a variety of issues, perspectives, educational content areas and context through which the business case must be examined.

BUSINESS CASE COMPETITIONS

Business case competitions focus on real world operational or strategic challenges facing real companies, though occasionally a fictitious name may be assigned to the study company. Like the business case method, business case competitions center on a case write-up for a particular company. The element that most significantly separates case competitions from in-class case studies is time. As with any managerial problem, the student team has to approach the case under the pressure of time, complicated by both limited facts and resources in an unknown future. Rather than the unhurried pace of the normal course-by-course, 16-week semester, students usually only have 3-4 weeks to prepare for a business case competitions, including time for research, analysis, synthesis and presentation preparation.

Within this small window of time, student team members must integrate course content from their various business curricula. For the most part, the case write-up, an amalgamation of ambiguous (oftentimes contradictory) facts, opinions incidents and documents is presented to student teams who must first organize these items into a coherent whole in order to accurately identify the company's

problem(s), and ultimately viable solutions. As in the "work-a-day" world, the team never has all the facts to exercise their best judgment. Even more so, experiencing this process can complicate discussions and consultations with others, but is practical and realistic for the everyday manager.

From a constructivist view, business case competitions are not simply an advanced display of "knowledge-by-representation" related to a particular business content area, nor are they simply unstructured student projects. Instead the business case competitions present students with experience solving a substantial cross-disciplinary problem in today's global business environment. Moreover, students must work together in teams to (1) define the problem, (2) develop a solution, (3) produce and demonstrate an artifact that solves the problem and (4) present their solutions in oral presentations and written reports. This intersection of academics with business ambiguity places the burden of knowledge creation squarely within the realm of the student learners, and transforms the students from passive recipients of information to active participants in the learning process.

Learning Outcomes of Business Case Competitions

In 1988, Arie P. de Geus, a leading expert in organization learning wrote,

> *In a changing environment, the human ability to learn is fundamental for adaptation. Indeed, in the modern world of continuous, rapid change, effective learning and innovation may be the only sustainable competitive advantage (de Geus, 1988 from Apaydin, M., 2006:678).*

Though de Geus may not have meant to advocate for constructivism, he may have indirectly created one of the strongest argument for cognitive constructivism, whereby learners experience their lessons in an active learning environment. For it is from an active learning experience that future corporate leaders will learn to adapt rather than regurgitate.

The time-constrained environment of the business case competition can be used in an effective way to move students up the

cognitive skills ladder from the low skill levels of knowledge, comprehension and application to the higher, more adaptable skills of analysis, synthesis and evaluation [Economic Network. Retrieved on 11/28/10 from http://www.economicsnetwork.ac.uk/handbook/casestudies/12.htm]. Some of the primary benefits of case competitions, many of which overlap with the case study method, include:

- Students encounter course materials in a real world context
- As a team member, each student has an opportunity to explore multiple perspectives – some of which may be illogical, irrational or not based in facts
- Students are required to sharpen their critical thinking and analytical skills in order to reach conclusions about open-ended problems
- Many cases require students to synthesize cross-disciplinary course content into different analytic techniques and information for an integrative solution to the case problem(s).

CASE COMPETITIONS AND KNOWLEDGE-BY-EXEMPLIFICATION

Knowledge-by-exemplification, or knowing through immersed, everyday practical coping identifies an alternative epistemology for business schools. According to Chia and Holt (2008), knowledge-by-exemplification describes "modalities of action," (Certeau, 1984:29 from Chia and Holt, 2008) or ways of "making do" rather than any formalized theories or concepts. The authors argue that knowledge-by –representation dominates the learning process at business schools today. Instead of learning and internalizing the social milieu of business, students are merely academic automatons. Whitehead characterized this learning process as "minds in a groove (1985:245). He states that the emphasis on teaching students how to collect and remember accumulated generalities unwittingly blinds them from the actual richness and messiness of managerial realities. Because business school professors tend to know more about academic publishing than about "problems of the workplace" (Bennis and

O'Toole, 2005: 102), the general belief is that MBAs from even the best business schools are not being taught the skills that their organizations need to compete effectively. Chia and Holt further contend that business schools' pursuit of rigor tends toward a Platonic separation of reason and emotion, investing status in episteme and technè - knowledge derived from the intellectual certain - at the expense of the messier but equally influential knowledge needed to negotiate emotional and affective responses that are a function of the social context in which businesses operate.

Knowledge-by-exemplification is described as in-situ means for acquiring knowledge by operating in a modus operandi that is transmitted through exemplars of social practices: style, demeanor, mannerisms, and culturally mediated predispositions (Chia and Holt, 2008:480). Moreover, the authors indicate that knowledge-by-exemplification is associated with phronesis and mētis. Phronesis is said to be an integrative wisdom acquired from experience and immersion in a practice. While mētis is a related type of intelligence that combines flair, wisdom, and forethought, to name a few. Mētis emergences in situations that are transient, shifting, disconcerting and ambiguous. Neither of these two forms of intelligence lend themselves to precise measurement and representation through models or symbolic terms.

Knowledge-by-Exemplification and Business Case Competitions

The business case competition offers students an opportunity for new cognitive development over time; specifically, reflective practice, skill-theory integration and self-knowledge – skills that are underdeveloped in the traditional knowledge dissemination approach. The case competition is the crucible of knowledge-by-exemplification. In the context of the case competition students gain an awareness of their own role as active, participative learners. Thus, beginning their transformation from a "represented" world to world of tacit knowledge that is often ad hoc – that "grows in spots" and is picked up "along the way" rather than being deliberately taught or learned (James, 1907: 168 from Chia and Holt, 2008). Swanson et al. described this transformation as the development of critical thinking skills, the use of real world problems, the emphasis of concepts over

mechanics and the "worthwhileness" of a course (Patten and Swanson, 2003; Swanson 2005; Swanson and McKibben, 1999).

There is ample evidence to suggest that the classical case study method is valuable, and that the constructivist approach to knowledge acquisition is effective. By combining their learning with authentic tasks from different contexts in the case study method, students reinforce their learning and are in a position to transfer their knowledge to their workplaces. While in classical case method teaching, snapshots of the target company are written up and presented as independent cases throughout the semester, case competitions function similar to what Theroux and Kilbaine (2004) called the "real-time" case method. Though not virtual, case competitions are similar to Theroux and Kilbaine's real-time case method in that they attempt to introduce more realism, pertinence and urgency into the case being analyzed. By creating a context whereby a real-life situation is adopted, monitored, discussed and analyzed, as the situation unfolds. And to then, make recommendations to the target company, receive feedback, as well as observe actual outcomes of the decision making process enables students to internalize the socialization process.

Business case competitions, while still rooted in constructivist pedagogy, are near-direct learning engagements that stimulate an alternative form of phronetic and mētistic learning known as knowledge-by-exemplification. Knowledge-by-exemplification is more directly linked to the learning that must be cultivated within MBA classrooms if aspiring managers are to be equipped with the business skills needed in the real world (Chia and Holt, 2008).

The Role of Faculty in Creating Knowledge-by-Exemplification

Current research on cognition and teaching challenge faculty to find new and creative ways to engage student learners in the knowledge acquisition process. The current constructivist perspective challenges faculty to create dynamic activities, involving student-to-student and student-to-faculty interactions that create both knowledge and meaning. Knowledge-by-exemplification challenges faculty to not only help to create knowledge and meaning, but to identify experience both inside and outside the classroom that will

culminate into students internalizing the tacit knowledge that can add value to them and the company that they aspire to manage. Table 2 outlines the evolving role of faculty in creating knowledge-by-exemplification.

In such a world, the involvement of practice in the generation of knowledge is essential, wherein business schools learn from and link exemplars, to facilitate 'in-process development of new understanding' and the pursuit of 'sense-making' bridges between education and practice (Huff and Huff, 2001:51).

Table 2. Four Metaphors of Learning

Learning is…	The learner is a…	The teacher is a…	Typical instructional methods are…
Response strengthening	Passive recipient of rewards and punishments	Dispenser of rewards and punishments	Drill and practice on basic skills
Knowledge acquisition	Information processor	Dispenser of information	Textbooks, workbooks and lecturing
Knowledge construction	Sense maker	Guide for understanding academic tasks	Discussion, guided discovery supervised participation in meaningful tasks (Mayer, 1992)
Knowledge exemplification (Chia & Holt, 2008)	Participant in the multi-dimensional demands of business life	Bold, enthusiastic conduit for imaginative discovery and learning	Case competitions (inter- and intra-school), boot camps, experiential classrooms

Source: Adapted from The Three Metaphors of Learning, Sudzina (1997)

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