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The Case for Competition: Learning About Evidence-Based Management Through Case Competition

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Over the last century, business cases have developed into a centerpiece of management education (Hammond, 1976; Mesney, 2013). More recently, the use of cases in business schools has extended beyond the classroom setting. Students around the world invest considerable time and energy to prepare for and compete in case competitions. We argue that an annual case competition should be established that embodies an evidence-based management (EBMgt) perspective. We extend previous suggestions about adapting case-based teaching to better support EBMgt (e.g., Goodman & O'Brien, 2012; Rousseau & McCarthy, 2007), recognizing that such a shift requires a fundamental change to how many business educators use cases (Mesney, 2013). We believe an EBMgt-focused case competition can promote greater awareness and use of the EBMgt concept, benefiting students and other stakeholders.

Evidence-based management (EBMgt) holds great promise for improved organizational decisions and actions, with commensurate benefits for organizations, their members, and other stakeholders, such as shareholders and communities (Pfeffer, 2012; Pfeffer & Sutton, 2006; Rousseau, 2006). EBMgt refers to the science-informed practice of management in which ethics and stakeholder concerns, practitioner judgment and expertise, local data and experimentation, and principles derived through formal research are each considered critically and used to inform decision making (Briner, Denyer, & Rousseau, 2009; Rousseau, 2012a). Leading proponents have argued that management education is central to the development of EBMgt in practice (e.g., Pfeffer, 2012; Pfeffer & Sutton, 2007; Rousseau, 2006, 2012b; Rousseau & McCarthy, 2007).

> [T]he most important reason evidence-based management is still a hope and not a reality is not due to managers themselves or their organizations. Rather, professors like me and the programs in which we teach must accept a large measure of blame. *We typically do not educate managers to know or use scientific evidence*. Research evidence is not the central focus of study for undergraduate business students, MBAs, or executives in continuing education programs (Trank & Rynes, 2003, cited in Rousseau, 2006: 262, italics in original).

A recent study by Charlier, Brown, and Rynes (2011) examined over 800 syllabi of required MBA courses in management. Charlier and colleagues'

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findings support the contention that EBMgt in particular and research evidence more generally are featured in relatively few courses. There is a need for considerable change in how management students are educated to support EBMgt (Rousseau & McCarthy, 2007). Thankfully, some specific, pragmatic ideas for teaching EBMgt and using evidence-informed principles of teaching and learning have been offered (see Burke & Rau, 2010; Goodman & O'Brien, 2012; Jelley, Carroll, & Rousseau, 2012; Rousseau, 2006; Rousseau & McCarthy, 2007). Those specific suggestions complement more far-reaching recommendations for change (e.g., Burke & Rau, 2010; Rousseau & McCarthy, 2007).

In contrast to the scarce use of research evidence, "the case method has become a traditional, almost taken-for-granted feature of management education and learning" (Mesny, 2013: 56). EBMgt proponents have sometimes lamented the popularity of the case method or, more to the point, how its application has tended to de-emphasize evidence-based principles (Rousseau & McCarthy, 2007). Mesny (2013: 62) summarized that perspective clearly: "The case philosophy is against teaching general principles derived from research." Therein seems to be an inherent disconnect between case-based teaching and an evidence-based approach to management education. However, there is no single case method of teaching, given variation in instructional practices (Dooley & Skinner, 1977; Goodman & O'Brien, 2012; Mesny, 2013). Also, EBMgt proponents have recommended ways to alter case teaching practices to make use of evidence-informed learning principles and support EBMgt (Goodman & O'Brien, 2012; Pfeffer & Sutton, 2006; Rousseau, 2006; Rousseau & McCarthy, 2007). Pfeffer and Sutton (2006: 229) advocated using vivid stories, cases, and experiences to grab attention and spark action. Adapting cases to better support EBMgt is a promising learning intervention (Goodman & O'Brien, 2012) compatible with existing business instruction (Mesny, 2013).

We begin this essay with a brief overview of case-based teaching and learning before discussing conventional business case competitions more specifically. Subsequently, we propose that an annual case competition that in name and practice focuses on the principles of EBMgt should be established. Our purpose is to encourage the development and use of an engaging instructional strategy in which business students apply an evidence-based approach to management, thereby promoting the use of EBMgt in business schools and eventually among graduates working in applied settings. We also provide examples of how an EBMgt case competition could incorporate evidence-based principles of teaching and learning to further improve student outcomes (see Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010; Goodman & O'Brien, 2012).

TEACHING AND LEARNING WITH CASES

Circa 1912, Harvard Business School began using the case method (Hammond, 1976; Mesny, 2013). Over the past century the use of cases has evolved to be a management education centerpiece (Mesny, 2013; Mintzberg, 2004; Tompson & Dass, 2000), following a similar trend observed with legal and medical case-based teaching. In the 19th century, most law schools in the United States were deploying guided inquiry or cognitive apprenticeships as . . . pillars of legal education (Williams, 1992). Harvard Law, in 1879, had already developed case-based methods that would lead the content, methods, sequence, and context for future thinking (Redlich, 1914; Williams, 1992). From a medical perspective, clinical cases or the patient case method (Lipkin, 1989; Schmidt, 1989) developed to become a major part of the student learning process, in concert with discovery learning. The rationale for this approach was a combination of both apprenticeship and anchored instruction.

Williams (1992) discussed advantages and disadvantages of case- and problem-based instruction in terms of modeling, active engagement, scaffolding, metacognitive strategies, managing complexity, realism, authenticity, and sequencing. Both case- and problem-based logic involve students' learning through authentic cases or problems (Williams, 1992). Adding to the benefits of medical case-based learning were reports that faculty and students claimed a preference for case-based learning (Srinivasan, Wilkes, Stevenson, Nguyen, & Slavin, 2007). Yet there exists a gap between how cases are used in the legal and medical professions versus their use in business education. Law and medical students consult library resources—research results, evidence-informed principles, and precedents—as they learn with cases (Williams, 1992). This appears to be less common in terms of case-based learning within the business school setting.

Sharing similarities with problem-based learning, the case-based method presents business di-

lemmas to students and requires them to make decisions, as a mechanism for exploration and development (Menna, 2010; Williams, 1992). Mesny (2013: 64) argued that a primary benefit garnered from the case method used in business schools is that it conveys "management as a complex, multifaceted practice that is highly dependent on context, which cannot be reduced to general principles or theories, and which is unreservedly value-laden and subjective. This conception is as appropriate today as it was a century ago."

We argue that evidence-based general principles can inform (not dictate) complex, contextualized management decisions. Cases can be used to support an appreciation for the evidence-informed practice of management and the development of requisite skills, similar to the use of problem-based learning to support evidence-based medical education (Barends, ten Have, & Huisman, 2012). Certainly, problem-based learning can also be used in management education, for varying levels of experience and organization access.

Yet when our colleagues say they use case-based learning, we often assume that they are administering the same universal intervention to students, albeit a different functional form (e.g., finance case, strategy case, accounting case). When we as faculty take for granted the origins and evolution of case methods, we influence the nature and scope of knowledge that we pass on to students (Goodman & O'Brien, 2012; Gray & Constable, 1983; McNair, 1954; Mesny, 2013). Dooley and Skinner (1977) contended that the vague connotation of "the case method" creates problems in administration and process. The definitional differences influence pedagogical conventions, educational objectives, case description, students' roles, instructors' preparation strategies, judging processes, requirements for success, and facilitator biases. For example, student participation, as part of the case process, can vary depending on the type of case method administered (Desiraju & Gopinath, 2001). Desiraju and Gopinath systematically compared the Harvard Case Method (HCM) to the McAleer Interactive Case Analysis (MICA) method. MICA provides a structured approach to increase students' contributions and reduce the instructor's role in facilitating discussion. Desiraju and Gopinath found that students reported reading cases more carefully, participating more frequently, and using more case details when MICA was used.

One of the key limitations of the case method is a lack of conclusive evidence regarding its effectiveness (Mesny, 2013). Evaluating the effects of any teaching method is difficult, and comparative research on relative effects of different methods used in business schools is sparse. The paucity of empirical evidence with respect to impact on student outcomes and subsequent managerial performance is not unique to the case method, but *is* troubling given the centrality of this approach to management education (Mesny, 2013). Despite criticisms of case-based teaching (see Mesny, 2013, and Williams, 1992, for summaries), the case-based approach can be compatible with evidence-based principles of active learning to the extent that it encourages students to engage actively in thinking about and discussing business situations and associated recommendations (Goodman & O'Brien, 2012; Mesny, 2013).

CONVENTIONAL BUSINESS CASE COMPETITIONS

After 100 years of use there is little prospect of case-based methods disappearing or diminishing as a cornerstone of management education. One specific and seemingly growing form of case-based-learning is the case competition. Case competitions provide business students with opportunities beyond the classroom setting to learn, network, and engage with complex problems. In competition with other committed students, participants represent themselves, their teammates, and their institutions. Evidence-informed principles of teaching and learning recognize the importance of student motivation. "When students find positive value in a learning goal or activity, expect to achieve a desired learning outcome, and perceive support from their environment, they are likely to be strongly motivated to learn" (Ambrose et al., 2010: 5).

Additional student benefits that are derived from case competitions are memorable experiences, peer bonding, social capital development, and exposure to job opportunities. For example, recruiting occurs at case competitions because recruiters have the perception that students' performance in a case competition reflect tacit knowledge required in the workforce rather than their restriction to declarative knowledge (Armstrong & Fukami, 2010).

The first author has coached case competition teams for 3 years (so far). Preliminary observations over that time suggest that conventional case competition, as a learning mechanism, offers a significant forum for student engagement. Detailed de-

scriptions of our experiences and methods are beyond the scope of the current essay. We point only briefly to these experiences with conventional case competitions since it was upon reflection of their strengths and limitations, in concert with discussions of EBMgt concepts, that we recognized an opportunity for an EBMgt-focused case competition. An EBMgt-focused case competition could be a way to improve student learning while also promoting the EBMgt approach to managerial decision making. We will discuss our proposal for an EBMgt case competition in the following section. Here, we provide more information about conventional case competitions and our teams' experiences.

With institutional support, our teams traveled around the world to compete in national and international case competitions. The quantitative results were 19 top-three finishes at a total of 24 regional, national, and international case competitions. The qualitative evidence was an improvement in student thinking, more specifically, in ways consistent with EBMgt thinking (e.g., challenging assumptions; use of well-supported concepts and frameworks).

At this point, we do not know the exact number of case competitions currently offered, nor the number of student teams participating in them. We do know that several of the more distinguished case competitions draw students from around the world. Due to student demand, completion of a preliminary case at the teams' home institutions may be required to identify which teams will be invited for subsequent rounds of competition. Not passé, hundreds of competitors line up each year for preliminary round competitions with the hope of gaining admission into the final rounds in Hong Kong, Singapore, Denmark, New Zealand, the United States, Canada, the United Kingdom, and France.

Typically, conventional case competitions have students converge on a business school for a 3–5-day period. The process generally follows a structure wherein students are put in an isolation room for 3 hours to analyze a case and prepare solutions. Isolation generally entails separation from faculty members, databases, Internet access, and academic research. Normally, student teams are provided with paper, writing instruments, and a computer used only to prepare a presentation. Students offer their analyses and solutions to a judging panel, who pepper them with questions. In some instances competitions allocate 24 hours for students to prepare for their presentations. We believe student isolation from research resources is an important limitation of conventional case competitions. In the next section, we propose EBMgt-friendly changes to these conventional practices.

In contrast to our opponents, the first author used team-preparation strategies more consistent with EBMgt, which have been subsequently refined for the forthcoming discussion of an EBMgt case competition. Although our students were highly engaged and successful in preparing for and competing in conventional case competitions, there are opportunities for improvement in terms of how those conventional competitions are administered. Frequently, judging practices and evaluation rubrics discouraged or punished EBMgt-consistent thinking, requiring instead that students regurgitate popular frameworks, even if used in an inappropriate context. Faculty and judges seemed to compound the confusion by taking a "quick read" of the case and erroneously defining core issues from a given functional perspective; for example, "this is an accounting problem" or "this is a marketing problem." Consequently, the faculty and judges failed to recognize the educational value of engaging with complicated and interconnected business problems (see Goodman & O'Brien, 2012: 327).

In essence, our observations of conventional competitions and their limitations suggest an opportunity to focus more specifically on the implementation of EBMgt practices at case competitions. More explicit and frequent use of EBMgt in competitions requires changes in the way students, faculty, judges, and competition organizers are educated. This means using EBMgt practices as the cornerstone for case competition logistics, student preparation and development, judging calibration, and evaluation criteria, as well as case selection. Case competitions represent a forum that facilitates high levels of excitement and engagement of multiple stakeholders that, we believe, can enhance and be enhanced by EBMgt.

CALL FOR AN EVIDENCE-BASED MANAGEMENT CASE COMPETITION

Given the current positioning of cases in management education, the benefits garnered from using case competition platforms, our own observations from conventional case competitions, and the multiple stakeholders that can be reached through such competitions, we propose that the time is ripe for a case competition premised on a current conceptualization of EBMgt as an overarching frame-

work (e.g., Briner et al., 2009; Rousseau, 2012a). Explicit use of the EBMgt perspective will make it more widely known among faculty, students, judges, and others in the business community.

Success at case competitions demands intense preparation. Preparing students to use and be rewarded for effectively using an EBMgt approach during competition holds promise for the development of a mind- and skill-set that can transfer to an applied setting. Learning and transfer can be further improved by incorporating evidence-based principles of teaching and learning (Ambrose et al., 2010; Goodman & O'Brien, 2012). Although our present focus is to advocate for an EBMgt case competition, the ideas described in this section can, and we hope will, be adapted for use in courses and other settings where cases are used.

Purpose of the Competition

We propose that the general goal of an EBMgt case competition be to promote the EBMgt approach in order to improve the quality and use of information (Rousseau, 2012a) affecting recommendations and decisions about management practices and organizational phenomena. Practice by way of case competitions is hypothesized to influence positively not only students' learning and development (e.g., critical thinking; evidence search and appraisal skills), but also the quality and use of information in transfer settings (real organizations). We expect larger effects for students undergoing active learning and intense preparation, as well as smaller effects for other stakeholders (e.g., faculty and judges) exposed to the EBMgt approach in a manner that demands less active and intense effort.

The recommendation to establish an EBMgt case competition takes aim at incorporating case competitions into the conversation started by Rousseau and McCarthy (2007). Their recommendation (Rousseau & McCarthy, 2007: 88) was to focus on management case analysis and decision making by encouraging students to (1) ask relevant managerial questions; (2) search for the best available evidence; (3) critically appraise acquired information; and (4) apply relevant information to case issues. These and similar steps (see also Jelley et al., 2012) provide general guidance to students, judges, and faculty members. The structure of the proposed EBMgt case competition would emphasize ethics and stakeholder concerns, practitioner judgment and expertise, local data and experimentation, use of evidence-based decision practices, and principles derived through formal research (Briner et al., 2009; Rousseau, 2012a).

An EBMgt-themed case competition could also connect well with others in the business community, including competition sponsors and judges. Sponsors, judges, faculty members, and event organizers could be offered seminars and examples of EBMgt in practice, perhaps focused on their own "live" cases. Sponsors would either be current practitioners of EBMgt or neophytes who would come to experience firsthand how an EBMgt perspective can be applied as the case competition unfolds. In a regional case competition organized by the first author, we used a written description of a live case for students' analysis and recommendations. Judges from the organization featured in the case were so impressed by the students' work that the winning team was invited to present to the organization's senior executives and board of directors, a meeting that was not planned in advance. Although it was a tribute to the winning team, the postcompetition client meeting seemed to reflect the organization's genuine desire to make use of the students' analysis. That competition did not involve all of the ideas we are now proposing for an EBMgt competition, but it did demonstrate how students could engage with a live case in a most impressive way. If students' use of EBMgt to deal with cases impresses judges, the argument for an expanded role for EBMgt in management practice will be strengthened. In terms of sponsorship opportunities for an EBMgt case competition, we suspect those would be of interest to businesses and professional associations involved in knowledge development and use.

Writing or Selecting Cases

Cases for the EBMgt competition should be written with the Briner and colleagues (2009) and Rousseau's (2012a) elements in mind and heed calls for cases depicting models of EBMgt (Goodman & O'Brien, 2012; Rousseau & McCarthy, 2007). In contrast, Rousseau (2006: 264) observed that "in twenty-five years of using cases in class, I cannot recall a single time in which a protagonist reflected on research evidence in the course of his or her decision making." The proposed EBMgt case competition would feature cases in which protagonists' explicitly considered evidence—both local data and formal research—along with ethical considerations, stakeholder concerns, and reflections on their own expertise. Jelley and colleagues (2012)

described a brief absenteeism diagnosis exercise that encourages students to ask questions from each of the EBMgt elements—practitioner judgment and expertise, ethics and stakeholder concerns, evidence from the local context, and evidence from formal research—to introduce an EBMgt approach to thinking critically about an alleged organizational problem. As they noted, that exercise could be expanded with a more elaborate case. We think the EBMgt framework is a useful foundation for any case analysis and is transferable to practical situations. We recommend it be a prominent part of the proposed EBMgt case competition, including informing the content of the cases used in practice and competition.

Each of Briner and colleagues' (2009) elements embedded into a case description would need to be considered critically as part of students' analysis. Protagonists may have already gathered some relevant (and irrelevant) local data, outlined aspects of ethical dilemmas and stakeholder concerns, and identified some previous research to consider. That work would usually be deliberately incomplete, and students would be encouraged to seek and critically appraise additional evidence. Additional evidence may include an existing systematic review, if available, or students' rapid assessment of relevant primary studies on a topic. Case-specific internal databases (real or simulated) could be made available for analysis. Case competition participants should have access to required tools, notably library databases and possibly statistical software, for acquiring, analyzing, and critically appraising information in support of their decision making and action planning. Access to library resources is a unique feature of our proposed competition compared to existing business case competitions, yet it is similar to how learners function with legal cases and medical patient problems in those professions (Williams, 1992). Depending on the case and information needs relevant to important questions, students may even make and defend proposals for local experimentation and evaluation (i.e., how they would generate additional, needed evidence). Such proposals introduce and encourage use of the EBMgt perspective as a process.

Judging and the Evaluation Rubric

Judging represents the cornerstone of case competition evaluation. It has been disheartening to witness competition organizers who place no emphasis on the development of judges and their decision making. Clearly a misalignment exists when the students are dissecting a case using one methodology and the judges are using their own ad hoc, idiosyncratic methodologies to evaluate the students. To align efforts with outcomes, it seems reasonable that judges for the proposed competition be trained in EBMgt and associated decision aids. Rubrics and judging considerations should be discussed well before the competition to provide judges with opportunities to develop elaborate understanding of EBMgt principles. Furthermore, we suggest that both empirical findings (i.e., McWilliams & Siegel, 2001) and conceptual findings (i.e., Gamble & Moroz, 2014) be made available to judges and integrated into the rubric to promote judicious decision-making processes.

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In the same way that student selection and development are important for an effective EBMgt case competition, so too is the selection and training of judges. Of course, conventional case competitions could realize some improvements through more careful attention to judging and evaluation criteria, without necessarily adopting all elements of the proposed competition. We believe that judge calibration is a key aspect of the proposed competition and can support EBMgt beyond enhancing the quality of assessments.

We argue that developing students' appreciation for evidence, knowledge of evidence-informed principles, and skills to support evidence-based practice, are important goals of the proposed competition, but we envision wider benefits. Efforts to better calibrate judges would involve educating judges, many of whom are practicing professionals, about the EBMgt perspective. Hopefully, judges' appreciation for and use of EBMgt will extend beyond the competition to their roles in organizational settings. As a side benefit, judge calibration could also involve demonstrating use of an evidence-based practice for performance assessment in the form of frame-of-reference training (see Roch et al., 2012, for a recent meta-analytic

review). We recommend that the frame-of-reference literature be consulted for planning the judge-calibration training. Judges would be provided with free training on EBMgt principles in the form of seminars, tutorials, worked examples, and group dialogue.

A focus on developing depth of knowledge and the ability to deal with varying business problems is fundamental to such a competition. Traditionally, students struggle to deal with complexity, opting for functional rather than interconnected decision-making processes. We suggest an emphasis be placed on helping students focus on the interconnectedness of business problems using the principles of EBMgt. This emphasis could start with an evaluation rubric that rewards students for tackling the interconnectedness of business problems. We further recommend that the evaluation rubric be shared publically with stakeholders.

Sequencing of the Competition

In terms of competition structure, we envision that the case competition would begin with a written preliminary case where all student teams have 1 month to work on the case at their home institutions. For the second stage, top teams (based on the written submission results) would be invited to the competition venue to participate in a 24-hour case preparation, followed by a judged presentation. Third, these top student teams would participate in a 3-hour case preparation and presentation. The last phase would consist of the top four teams, who compete in a 5-hour preparation. Live cases involving current challenges facing a given organization and judges from that organization could be considered, as noted previously. The final rounds would involve presentation and defense in front of a panel of (trained) judges.

Students would be allowed to refer to a collection of evidence-informed principles and models they compile and prepare in advance of the competition, as well as given access to search engines and databases. Access and use of such resources would not only be permitted, but encouraged throughout each phase of the competition, from the initial written case at one's home institution through to the final live case at the competition venue. This approach encourages students to become familiar with evidence-based content from which they can draw when faced with a decision. Having refined skills with which to acquire and appraise additional evidence, students can also pull in other problem-focused research findings and principles as needed for a given case.

A team's collection of evidence-informed principles and models provides a set of EBMgt-consistent decision aids its members could use in competition and also in applied settings. Students' active participation in its construction is likely to enhance their mastery and long-term retention of the chosen content (Goodman & O'Brien, 2012). In practice sessions, students will develop and refine knowledge of managerial principles and the skills (case analysis; searching for and appraising evidence) that will enable them to function well in time-constrained situations. "It is easier to make good decisions quickly if managers are educated and evidence savvy" (Zanardelli, 2012: 196; President and CEO, Ashbury Heights).

We encourage students to take different roles and methods to manage ambiguous interrelationships and varying time constraints during the course of their preparation. We also encourage them to explore different sources of evidence. The rationale for this approach is a belief that struggle is good, a belief which is consistent with the "desirable difficulties" concept (Bjork, 2009: 314, cited in Goodman & O'Brien, 2012: 316). Due to the challenging nature of this approach, we advocate that students get course credit for participating in the EBMgt endeavor. However, the curriculum linkage conversation is beyond the scope of this essay.

The second task sequencing difference from a conventional competition is the way in which the best available information is gathered, arranged, and used. Sadly, students have been forced to automatically overemphasize popularized business tools such as SWOT (strengths, weaknesses, opportunities, threats), 4 Ps (product, place, price, promotion) or Porter's 5 Forces to comply with judges' expectations. If students feel that they must use these business tools to succeed in a competition, they will use them. This strategy of automatically adopting popular frameworks can lead to misinformed recommendations when the forced tools fit poorly to the demands of the case in question. One of our grave concerns from this approach is the lack of connections between the evidence in the case, the evidence from literature, and the recommended course of action.

We argue that it is more appropriate to challenge students to search for the best available research as the basis for any recommendation they may make. The reasoning for this recommendation is to empower students, through guided exploration, to ask

questions, understand context, and appreciate the often-ambiguous interrelations among available evidence. The very essence of using research and associated management principles is to improve students' thinking on various business themes (e.g., culture change, mergers and acquisitions, leadership, valuation, negotiation, ethics, branding).

Goodman and O'Brien (2012) described the randomization of tasks as beneficial for long-term learning and performance. To some extent, these ideas could be built into the sequence of cases that are performed during the multistage EBMgt competition. These and other evidence-based principles of teaching and learning (see Ambrose et al., 2010; Goodman & O'Brien, 2012) can also be used prior to the actual competition. Indeed, the intense preparation and active learning processes leading up to competition are central to students' development.

GETTING READY TO COMPETE

The purpose of our essay is to argue that an EBMgt case competition could be used to promote EBMgt and enhance students' learning. Given the importance of practice and preparation for student development and success in competition, we offer some preliminary thoughts on the precompetition phase to complement our broader argument.

Training Phases

Precompetition assistance that provides complete worked illustrations followed by progressive transfer of problem-solving responsibility to learners decreases superfluous overload that novices may face (Goodman & O'Brien, 2012). This means that effective adoption of evidence-based learning practices for a competition entails showing and explaining the steps of the case competition process to neophyte students. One way to demonstrate the various stages of case analysis and presentation to junior students is to have them witness more experienced senior students, either live or by video, as they work through or present a case using the recommended EBMgt practices. Demonstrating the process in small chunks would allow students to observe components progressively and help them to improve without suffering from information overload. Shortly after a complete working example is presented, the faculty member and case students could be guided through a step-by-step process where certain elements of EBMgt case analysis are explained in terms of how parts can be developed and strengthened over time. These would provide a basis for dialogue with their faculty supervisor prior to practicing a series of EBMgt cases, which gradually become more complex and complete.

Faculty members can aid in the design of tasks to develop the structure and approach taken by students to develop thoughts (Goodman & O'Brien, 2012). The purpose of this particular segment is to design tasks that enable students to improve their abilities to deal with complicated and interconnected business problems. In this instance, the aim is to improve working memory and self-reflection. During scheduled practices and video debriefing sessions, faculty members can ask questions that promote reflection (e.g., "what leads you to believe that this is the best course of action?"). Rather than encouraging a traditional "sell your idea" approach, students are encouraged to answer using available research, stakeholders' perspectives, facts from the case, and ethical considerations. We advocate for persuasive arguments that are built on substantive factual foundations.

We reiterate a point made by Goodman and O'Brien (2012), who suggested continual assessment of the students' logic and facts by challenging their evidence, using the previously mentioned case competition mantra. Reconciling conflicting information is rarely addressed at case competitions. First, we recommend challenging students on what they know and how they know it, for example, their knowledge of change management (if change management is a critical factor of the case). Then they would be asked to explain the ways in which they could view change management for example, so that their understanding of change management can be assessed. A technique that could be used to challenge students' diagnostic misconceptions prior to an EBMgt case competition is to ask them, "Where might you be wrong?" Subsequently, students would research, reflect, and report back with an answer to that question.

As student teams gather their evidence-informed theories and relevant research, members will also be developing EBMgt-related skills, such as acquiring and critically appraising evidence in light of case demands. New students will have more time to complete a given task early in their development process. In practice sessions they may be given opportunities to reflect after their presentation and, after a rest, revisit their work and submit subsequent considerations prior to receiving feed-

back. The issue of using feedback skillfully is discussed below.

Training Schedule

One of the biggest hurdles facing student success is the ritual of delay that reduces practice time prior to competitions. As articulated by Goodman and O'Brien (2012), training sessions should be spaced out (distributed practice) rather than massed.

We suggest that even a basic, distributed training schedule would help both the competition judges and the students manage the demanding requirements of business problems, which are complicated by virtue of their interconnectedness. We advocate for a refocus toward spaced mock-up of EBMgt competition demands, under progressively tighter time constraints, to improve judgment and expertise. Training can also be drastically enhanced if a system is in place to develop students' appreciation and knowledge of EBMgt practices prior to the final year of their degree. This requires institutional buy-in, but will likely have dramatic effects on how students train. An exemplar of this philosophy is one particular South-East Asian business school, which does not necessarily focus on EBMgt practices per se, but does start students' case competition training in the first and second years of their undergraduate education.

Using Scientific Evidence From Other Disciplines

Another way to accelerate students' ability to manage the varying and challenging nature of business problems under the proposed case competition is to use scientific evidence from other disciplines (Goodman & O'Brien, 2012). An errant response or poorly constructed logic can have significant, negative evaluation implications. We suggest deliberate practice in listening and communication skills prior to the EBMgt case competition. Two specific uses of evidence from supporting disciplines could include speech pathology and law. Principles from the science-informed field of speech pathology could be used to explain the physiological and psychological mechanics of listening, hearing, and communicating. For example, when preparing for case competitions, students benefit from understanding the impact that stress plays in communicating their message to judges. Subsequently, understanding the documented science as well as the associated coping mechanisms are valuable tools for students who compete in the proposed case competition (Carney, Cuddy, & Yap, 2010). Similarly, some of the practices used in trial law could aid students' logic and delivery during an EBMgt competition. For example, trial law can inform students' method of expressing the case narrative and the associated case facts to the judging panel. This method essentially links and guides the recommended course of action for the organization featured in the business case.

Furthermore, we suggest the development of video seminars or podcasts with the intent of informing students of the beneficial attributes associated with research on acting, communication, self-reflection, and conflict resolution. Similarly, practice cases and video debriefing of teams' practice sessions would likely improve skill development. We also note that the demanding requirements of interconnected business problems are not bypassed or even mitigated by using business jargon, such as "value added, synergies, or harvesting efficiencies." This type of language rarely benefits the conversation.

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Student Performance Feedback

Goodman and O'Brien (2012) suggested less specific, delayed, and summarized feedback to enhance long-term retention and transfer. During the initial stages of practice at students' home institutions, it may make sense for intense and specific feedback during the step-by-step explanation of EBMgt patterns and processes, and possibly during final fine-tuning (Goodman & O'Brien, 2012). However, in line with Goodman and O'Brien, we suggest decreased or more delayed feedback intervention during the bulk of teams' practice as well as during the competition. For example, during the EBMgt case competition we argue that students should be empowered to provide feedback to each other and given time to reflect before judges provide guidance based on the rubric. We argue

that feedback and reflection are enhanced when students take written notes during feedback sessions and revisit their notes prior to the next case. This practice seems consistent with the Ambrose and colleagues' (2010: 125) principle that "[g]oal-directed practice coupled with targeted feedback are critical to learning" and specific practices they discussed (e.g., using peer feedback). Nevertheless, Goodman and O'Brien's discussion of feedback is important to emphasize the points that feedback is not automatically beneficial, more is not always better, and feedback interventions must be used judiciously to have positive effects (see also Ambrose et al., 2010; Kluger & DeNisi, 1996; Seijts & Latham, 2012). The amount, content, timing, and locus (individual or group) of feedback need to be considered carefully (Ambrose et al., 2010; Goodman & O'Brien, 2012). Goodman and O'Brien (2012: 314) also noted that "once a skill is acquired, immediate and continuous feedback is useful in fine-tuning expert performance or preparing for presentations, competitions, or other activities that require maximum performance (Bjork, 2009)." Furthermore, student feedback is likely to be more precise and valuable if there is a clear understanding that the case competition and the judging rubric are aligned with principles of EBMgt.

BENEFITS OF AN EVIDENCE-BASED MANAGEMENT CASE COMPETITION

A business case competition focused on EBMgt principles presents a sizeable opportunity. As we and others (e.g., Goodman & O'Brien, 2012; Rousseau & McCarthy, 2007) have argued, cases are promising learning tools to support EBMgt, although the manner in which they are used will need to be adjusted from traditional practices in business schools. We have offered the foundation for what could be a turning point in case competitions using an approach that is deliberately designed to be more closely aligned with EBMgt and make use of evidence-based principles of teaching and learning (Ambrose et al., 2010; Goodman & O'Brien, 2012). In this section we reiterate some benefits discussed previously and outline additional ones.

First, in addition to learning and development benefits noted earlier, an EBMgt competition would provide an opportunity for students to integrate the acquisition of content and procedural knowledge, thereby promoting the bond between the "what" (declarative) and the "how" (procedural) in a simulated decision-making context. As per Goodman and O'Brien (2012: 331), "[s]tudents would be required to identify and define problems, engage in evidence-based causal analysis (using evidence from organizational theory and research), and develop analysis-based, practical solutions." Discussions about conflicting theories and how deficient theories are propagated should enhance students' critical thinking. Further, more frequent conversations on how theories emerge as well as providing students with opportunities to test theories on case problems may be beneficial, as would information on *how to apply* evidence-based management practices (e.g., Latham, 2009).

A second benefit concerns publicity. We noted previously that awareness of EBMgt concepts should increase among competition stakeholders—certainly among the participating students, but also among sponsors, organizers, judges, and faculty members. Apart from increasing the salience of EBMgt for those stakeholders, a well-developed international case competition could attract additional attention to the EBMgt perspective. For example, whenever one of our top-performing case teams returns from a competition, the University's communications department gets busy promoting their success in the press. We suspect that other institutions take a similar approach. If there was a prestigious EBMgt case competition (with "Evidence-Based Management" in the name), it could help to further promote the perspective as students' achievements are highlighted. Moreover, those (winning) students would be ideally positioned to explain to all of their well-wishers what EBMgt entails and how it can support effective decision-making and practice in organizations. Similarly, the recruiting that occurs at case competitions could help propel an EBMgt perspective into organizations. It might well take a generation to realize fundamental changes in practice (Rousseau & McCarthy, 2007), but placing high-caliber, intensely trained, former EBMgt case-competitors into organizations would seem to provide a good start. We expect those former competitors will provide models of EBMgt for people in industry and help refine the concept and practice of EBMgt as it develops.

A third benefit of an EBMgt competition is the occasion to develop a handbook of EBMgt case analysis. Returning to judge calibration, a greater emphasis should be placed upon the rules of engagement. A handbook could explain many of the engagement principles for the neophyte. A

handbook would also be an appropriate platform to explain the evaluation rubric. Using well-developed rubrics is advocated by proponents of an evidence-based approach to teaching and learning (Ambrose et al., 2010) and consistent with the EBMgt-recommended practice of using checklists and similar decision aids (e.g., Rousseau & McCarthy, 2007). These points can be explained as examples of how the competition itself tries to make use of evidence-based principles while also providing stakeholders with information that they can apply beyond the competition. A supplemental handbook explaining tools and techniques of case analysis, preparation and presentation, alongside on-line tutorials, could provide students, faculty members, and judges with the required foundations, interacting elements, misconceptions, and exemplary practices. Most important, developing a mechanism for calibrating judges and evaluations communicates a boundary system for the competition. For example, if calibration were extended to faculty members, any competition grievances would be resolved by asking faculty members to use EBMgt principles to support their recommended future change. This calibration mechanism should be published in the handbook to resolve uncertainty.

A final benefit of an EBMgt case competition is the possibility of a data collection source for researchers. An EBMgt case competition will hopefully develop pride in purpose, perceptions of fairness in evaluation, trust in the competition system, and group identification. If the proposed competition is established, we believe that data could be collected to empirically examine aspects of case competition preparation and execution strategies, and the impact of this form of management education on student learning and performance both in competition and in subsequent applied work. Similarly, an EBMgt approach to case-based learning could be adapted to the business classroom and also subjected to rigorous research regarding its implementation and effectiveness. Whether in competitions or class settings, management educators and researchers should investigate the means through which we attempt to improve student outcomes and should use that evidence to inform our own practice.

CONCLUSIONS

More frequent use of EBMgt in practice requires changes in the way managers are educated. Broad, structural changes have been discussed in previous works with respect to teaching EBMgt and reducing gaps among research, education, and practice (e.g., Burke & Rau, 2010; Rousseau & McCarthy, 2007). Unfortunately, change can be difficult and radical change, threatening. Managing change requires recognition that improvements be perceived as necessary, desirable, and possible. Our purpose is to encourage the adoption of EBMgt in business schools by integrating an opportunity to practice and use EBMgt in a decision-making environment compatible with a widely used instructional strategy. We built upon suggestions made in earlier works about adapting case-based teaching and learning to support EBMgt (Goodman & O'Brien, 2012; Rousseau & McCarthy, 2007). We discussed how case competitions could promote greater awareness and use of the EBMgt concept to benefit students, and we provided some examples of how evidence-based strategies for teaching and learning could further enhance student outcomes. We focused on advocating for an EBMgt case competition, but the ideas presented here could be adapted for use in business classrooms as well.

The changes we have outlined are feasible, yet they may seem to challenge fundamental aspects of traditional case method philosophy (Mesny, 2013). However, the case method and problem-based learning applied in legal and medical education have long incorporated library resources and use of general principles to help address complex, contextualized issues of professional practice (Williams, 1992). Cooperation between case-teaching enthusiasts and EBMgt proponents may change the way cases are used in business education to enhance student engagement, learning outcomes, and transfer to practice in organizations. Existing case competition organizers are welcome to adopt the ideas discussed here. We also hope the EBMgt community will take this opportunity to build a case competition that in name and practice provides students with tangible opportunities to develop and use the skills we collectively envision for evidence-based managers.

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