

Does Scenario Planning Have a Role in U.S. Graduate Business Schools' Curriculum?

Jerry Zellars
Colorado State University

The literature reports scenario planning is increasingly being used by businesses to help plan more effectively. A potential problem with the existing scenario planning teaching models is they do not appear to support or benefit from scholarly research and practitioners' action research. The research study rationale is described in detail as well as survey activity in the top rated 100 graduate business schools in the U.S. and also survey participants' responses. The study, due to a low survey response rate, failed to provide adequate data to answer the study's primary question. Limitations, recommendations for future research and conclusions are provided.

INTRODUCTION

Scenario planning literature includes many claims of its benefits and increasing use in a variety of organizations (Laudicina, 2012; Rigby & Bilodeau, 2007; Rigby & Bilodeau, 2011). However, as good and as widespread its use is espoused to be, there are many questions about its effectiveness (Militor, 2009; Bradfield, Wright, Burt, Cairns, Van Der Heijden, 2005). Scenario planning seems to be a business practice that is an enigma to both practitioners and academics because so little scholarly research has actually been produced; one of the purposes of this research project is to try and determine if that is actually true for the academics and perhaps by extension true for the practitioners.

Although the word scenario seems to be part of just about everyone's lexicon in the twenty-first century, the definition of the term scenario planning, as conceptualized and practiced by scenario planning practitioners, seems to elude most people. Not knowing a definition for scenario planning is not surprising because as we shall learn later, there are more than a dozen and a half definitions being used by scenario planning practitioners.

The business person's extent of unfamiliarity with the typical scenario planning practitioner's definition and the practitioner's belief in its power to change an organization creates a chasm that is not easily overcome because at the end of the day scenario planning is about change. Therefore, those who are scenario planning practitioners understand its potential to positively affect almost any type of organization (Schwartz, 1991; Ringland, Lustig, Phaal, 2012; Coates, 2000). However, they also know that the key to success means individuals' mental models must be affected to the point that the group develops a shared mental model that is sustainable (Wack, 1985a; Wack, 1985b; Van Der Heijden, 2005).

But for all the potential good that can come from the use of scenario planning, it suffers from a condition of being a practice-based process in a business environment that increasingly demands "research based" data, in other words, scenario planning, has been generally void of academic theory and rigorous research (Chermack, Lynham, Ruona, 2001). Recently, however, theory (Chermack & Swanson,

2013) has been introduced and some research has occurred. Each year an increasing number of journal articles that address various facets of scenario planning are being published (University of Oxford, 2013c) which may eventually create a research based body of work that determines whether or not scenario planning is a meaningful business practice.

PROBLEM

The scholarly literature about scenario planning does not address whether the subject matter is taught at graduate business schools in the U.S. In fact, it generally does not address where scenario planning is taught at all. A potential knowledge gap exists between the practice of scenario planning in actual business applications (policy, planning, processes, products, and outcomes) and the scholarly products normally associated with existing business practices (theory, research, research-based curriculum, and scholarly contributions). In other words, one indicator of a maturing discipline is the identification of core disciplinary knowledge and skills, where to obtain them, and some system for managing how it can be most effectively learned. Until fairly recently, there was practically no theory or research around the scenario planning topic and almost no quantifiable data to advocate its use. Therefore, it seems understandable that it would not be taught at the graduate business schools in the U.S.

Significance of the Problem

The significance of establishing whether or not business schools are teaching scenario planning as part of their curricula is it would help answer the question of why more businesses are not using, and therefore benefitting from, that planning process. It might also shine light on two facets of scenario planning that are not often discussed but seem to be nonetheless important: 1. What are the qualifications, if any, for someone desiring to become or claiming they are a scenario planning consultant or scenario planning specialist? (see Table 1 for a list of skills and traits hypothesized to be possessed by the scenario planning consultant or specialist prior to conducting a scenario planning event).; 2. What are the readiness steps, if any, scenario planning participants must take before participating in a scenario planning event? It would seem reasonable to think that self-professed scenario planners must accumulate some of the skills and traits identified in Table 1 from an advanced business degree program such as a Master of Business Administration (MBA) degree (Note: There is no national or internationally recognized certifying authority for scenario planning consultants and scenario planning practitioners. Therefore, it may be quite difficult for a business that wants to pursue this type of facilitated process to select a prospective scenario planner that will meet their business's needs.)

If it is true that few or none of the U.S. graduate business schools are teaching a scenario planning process, researchers can begin the process of determining why it is not being taught. If some institutions are teaching it, then an obvious question would be about why some institutions are teaching it and others are not. Additionally, if some business schools are teaching that subject, then a question about how, where, and by whom did those teaching the subject receive their training also emerges.

Learning that a business school teaches scenario planning as part of its overall curricula would seem to indicate that either the institution has associated value to that construct or it is someone's pet project. Additionally, it would seem logical to think that faculty members of any institution attaching value to scenario planning would, at some point, recognize the need to pursue scholarly research to further inform those engaged in scenario planning or considering the pursuit of that subject as a profession.

The absence of scenario planning curricula at U.S. business schools, may identify a gap between what business leaders state is an on-going business need (Rigby & Bilodeau, 2007; Rigby & Bilodeau, 2011; Linneman & Klein, 1979; Linneman & Klein, 1983) and what business schools choose to require in their curricula to support the needs of those leaders.

TABLE 1
SKILLS, TRAITS, UNDERSTANDINGS, AND EXPERIENCES POSSESSED BY A
SCENARIO PLANNING FACILITATOR

Analytical Expertise	Implementation	Organizing	Self-confidence
Business Acumen	Intuitiveness	Patience	Self-awareness
Business Development	Knowledge of Current Events	Persistence	Sense of Time
Collaboration	Knowledge of History	Pragmatism	Sense of Timing
Compassion	Leadership	Psychology	Storytelling
Creativity	Listening	Public Speaking	Strategy
Curiosity	Longview	Questioning	Systems Thinking
Focus	Management	Relationship Building	Tact
Followership	Mental Models	Research Expertise	Technology Acumen
Group Dynamics	Motivator	Resourcefulness	Theory Development
Honesty	Openness	Salesmanship	Writing

PURPOSE OF THE STUDY

The purpose of this study was to determine if scenario planning is being taught at graduate business schools in the U.S.? To gain insight into this question, it was decided the research would focus on the top rated 100 graduate business schools in the U.S. This narrow focus was used because it was surmised that if the 100 top rated graduate business schools in the U.S. included scenario planning in their curricula, it would provide some indication that large, Fortune 1000 type companies recognize its value.

RESEARCH QUESTION

The research question that framed this study was: Does scenario planning have a role in the 100 top rated U.S. graduate business schools' curriculum?

Beyond the primary research question, this study attempted to collect information that would help the researcher understand whether or not graduate business school faculty members: 1. Were familiar with the terminology scenario planning.; 2. Were able to provide key words and concepts generally associated with scenario planning.; 3. The information source(s) that provided the faculty member with their understanding of scenario planning.; 4. The faculty members' practical, hands-on, experience with conducting scenario planning workshops or learning sessions.

DEFINITION OF KEY TERMS

It is critical that any academic or business endeavor adhere to a standard that demands as much precision in the use of terms and language as possible so that an actual communication environment is created. To that end, the following words and their associated meaning are offered in the spirit of supporting that communication goal.

1. Contingency (www.meriam-webster.com): An event (such as an emergency) that may but is not certain to occur.
2. Curricula (www.meriam-webster.com): The plural of curriculum.
3. Curriculum (www.meriam-webster.com): A set of courses constituting an area of specialization.
4. Scenario (www.meriam-webster.com): A sequence of events especially when imagined; an account or synopsis of a possible course of action or events.

5. Scenario Planning: Chermack (2011, p. 14-15) points out the fact that multiple definitions have evolved over several decades (1960s – present day). Unless otherwise specified, the definition used throughout this paper for scenario planning will be, “Scenario planning is a method involving group participation that aims to help shift participants’ perceptions of their external environment.” (Chermack & Swanson, 2013, p. 154)
6. Strategy (www.meriam-webster.com): The art of devising or employing plans or stratagems toward a goal.

LITERATURE REVIEW

This section reviews the four major domains of scenario planning literature that establish the need for this study: 1. Core tenants of scenario planning. 2. What constitutes scenario planning. 3. Discussion of foundational scenario planning studies. 4. A discussion of the benefits of scenario planning. These four domains of scenario planning literature form a clear basis for the research question at the center of this study.

Preliminary Literature Search

To develop an initial grounding in what may be known about the research question, several word searches were conducted using the EBSCO literature research capability available through the Colorado State University library system in an attempt to establish whether or not other researchers had explored this topic. The following four EBSCO databases were examined: Academic Search Premier; ERIC (Education Resources Information Center); Business Source Complete; LexisNexis Academic. Table 2, serves to demonstrate that using a variety of search terms did not produce meaningful results. Therefore, it was concluded that the goal of this research effort had most likely not been attempted or if it had been researched, the results of such a research project were not obviously documented in a generally accepted scholarly format such as a journal article, conference proceeding, masters thesis, or doctoral dissertation.

Two additional search efforts examined the Google Scholar database to first compare the use of the word scenario with the use of a variety of business terms (Table 3) and secondly to determine the use of the word scenario with typical business course terms (Table 4). Table 3 and 4, show the results of the searches for the word scenario and business disciplines that could possibly incorporate scenarios into their curricula—note the timeframes under consideration are the same for both searches which is the period beginning in 1967 and the first quarter of 2014. Table 3 demonstrates rapid growth in the use of the single word ‘scenario’. Table 4 generally demonstrates a trend toward increased use of the word scenario coupled to other business terminology. However, why the search trend increased is unknown. Speculation about the rising trend in these search terms could range from businesses actually considering the use of scenario planning to the fact that the availability of the Internet along with more powerful hardware and software became increasing more available to students, academics, businesses, and governments.

**TABLE 2
ACADEMIC DATABASE SEARCH: U.S. BUSINESS SCHOOL
TERMS & SCENARIO PLANNING**

Date	Data Base	Search Words			Years	Applicable Result(s)
3/12/14	EBSCO: Academic Search Premier	United States	MBA	Scenario Planning	Not Limited	Zero
		United States	Business Schools	Scenario Planning	Not Limited	Zero
		MBA	Curriculum	Scenario Planning	Not Limited	Zero
		MBA Curriculum	Business Schools	Scenario Planning	Not Limited	Zero
		MBA Degree	Business Schools	Scenario Planning	Not Limited	Zero
3/12/14	EBSCO: ERIC (Education Resources Information Center)	United States	MBA	Scenario Planning	Not Limited	Zero
		United States	Business Schools	Scenario Planning	Not Limited	Zero
		MBA	Curriculum	Scenario Planning	Not Limited	Zero
		MBA Curriculum	Business Schools	Scenario Planning	Not Limited	Zero
		MBA Degree	Business Schools	Scenario Planning	Not Limited	Zero
3/12/14	EBSCO: Business Source Complete	United States	MBA	Scenario Planning	Not Limited	Zero
		United States	Business Schools	Scenario Planning	Not Limited	Zero
		MBA	Curriculum	Scenario Planning	Not Limited	Zero
		MBA Curriculum	Business Schools	Scenario Planning	Not Limited	Zero
		MBA Degree	Business Schools	Scenario Planning	Not Limited	Zero
3/12/14	LexisNexis Academic	Scenario Planning as part of U.S. MBA degree curriculum			40 Years	Zero

**TABLE 3
GOOGLE SCHOLAR: BUSINESS SCHOOL CURRICULA TERMS
COMPARED TO THE TERM SCENARIO**

Google™ Scholar Search Conducted April 1, 2014: Business School Curricula Terms Compared To The Term "Scenario"

Google™ Scholar Topic	Ranges	1967-1969	% Increase or Decrease	1970-1979	% Increase or Decrease	1980-1989	% Increase or Decrease	1990-1999	% Increase or Decrease	2000-2009	% Increase or Decrease	2010-2014	% Increase or Decrease
Scenario		1,300		17,700	1361.54%	110,000	621.47%	562,000	510.91%	1,250,000	222.42%	677,000	-45.84%
Accounting		19,400		227,000	1170.10%	597,000	263.00%	1,030,000	172.53%	1,090,000	105.83%	737,000	-32.39%
Economics		64,500		279,000	432.56%	551,000	197.49%	683,000	123.96%	616,000	-9.81%	672,000	109.09%
Finance		19,400		177,000	912.37%	356,000	201.13%	973,000	273.31%	1,030,000	105.86%	379,000	63.20%
Management		93,500		344,000	367.52%	316,000	-8.14%	344,000	108.86%	455,000	132.27%	682,000	149.89%
Marketing		16,300		114,000	678.57%	348,000	305.26%	819,000	235.34%	1,100,000	134.31%	400,000	-63.64%
Organizational Behavior		8,710		32,600	374.28%	76,600	234.97%	399,000	520.89%	971,000	243.36%	295,000	-69.62%
Strategy		18,900		245,000	1296.30%	547,000	223.27%	972,000	177.70%	1,110,000	114.20%	1,010,000	-9.01%
Strategic Management		3,990		19,100	478.70%	123,000	643.98%	913,000	742.28%	1,150,000	125.96%	449,000	-60.96%
Strategic Planning		4,780		19,700	412.13%	94,900	481.73%	685,000	722.87%	1,020,000	148.69%	382,000	-62.55%

TABLE 4
GOOGLE SCHOLAR SEARCH FOR SCENARIO TERMINOLOGY
LINKED TO BUSINESS EDUCATION

Google™ Scholar Topic	*1967-1969	1970-1979	1980-1989	1990-1999	2000-2009	*2010-2014
Scenario	1,300	17,700	110,000	562,000	1,250,000	677,000
Scenario Development	759	15,100	66,800	287,000	756,000	108,000
Scenario Development Business	346	6,320	20,300	69,600	347,000	95,900
Business Scenario Development	346	6,320	20,200	74,800	357,000	89,700
Scenario Planning	444	8,650	23,500	112,000	431,000	108,000
Scenario Planning AND Accounting	85	1,650	7,870	24,700	70,300	25,500
Scenario Planning AND Education	228	3,810	14,300	54,600	170,000	39,600
Scenario Planning AND Finance	84	1,740	7,660	26,000	73,600	20,700
Scenario Planning AND Marketing	46	1,350	7,050	23,800	74,900	25,500
Scenario Planning AND Strategic Management	325	6,000	16,600	18,900	17,600	16,100
Scenario Planning AND Strategic Planning	472	8,920	15,900	18,100	17,600	15,700
Scenario Planning AND Strategy	197	3,580	15,600	74,600	209,000	39,700
Scenario Planning Business Curriculum	143	1,930	6,960	16,600	17,800	16,300
Scenario Planning Business School	170	2,520	10,100	39,800	114,000	29,800
Scenario Planning Business School Curriculum	143	1,930	6,960	16,600	17,800	16,300
Scenario Planning MBA Curriculum	4	102	520	2,500	13,900	11,500
*Partial Ranges						
Note: The rationale for using 1967 as a starting date is because that is the year Herman Kahn and Anthony J. Wiener published the book "The Year 2000: A Framework for Speculation on the Next Thirty-Three Years, MacMillan Company, New York, 1967.						

What is Scenario Planning?

Although there are many factors that could contribute to a generally vague understanding of scenario planning, one in particular rests on the fact that there is no generally accepted definition of scenario planning (Bradfield, et al., 2005; Bishop, Hines, Collins, 2007; Chermack, 2011). 18 definitions of scenario planning were provided and analyzed by Chermack (2011, p. 14-15) with an aim to present an integrative definition of scenario planning. In addition, Chermack (2011, p. 14-15) stated, "...half of the available definitions date from 1997 to the present." suggesting increased recent attention to the topic, though it should be noted that attention does not necessarily constitute scholarly inquiry. Bishop, et al. (2007) reported similar results, stating "eight categories of techniques that include a total of 23 variations are used to develop scenarios."

A natural place to begin examining the definitions of scenarios is to consider the definitions offered by two individuals the scenario planning community tend to accept, from a historical perspective, as being the preeminent authorities of the field, Herman Kahn and Pierre Wack. These men offer definitional robustness that is often missing from definitions used by many of today's practitioners.

It is appropriate to begin with understanding more of what Herman Kahn, considered by many to be the "father" of scenario planning, stated regarding scenarios. Kahn and Weiner (1967, p. 6) stated, "Scenarios are hypothetical sequences of events constructed for the purpose of focusing attention on causal processes and decision-points." Kahn believed scenarios should be precise, "step-by-step", in describing how a situation came about and it should identify the alternatives associated with preventing, diverting, or facilitating the process. In other words, he looked to create plausible futures, identify signals that could be used to indicate some situation was about to occur, and create a plan or plans to deal with the idiosyncrasies of each scenario. This process required diligent analysis of many variables.

Pierre Wack, probably the best known of all the modern business scenarists, was a contemporary of Kahn's. He led the scenario planning effort within the Royal Dutch/Shell Group between 1971 and 1981 (Kleiner, 2008, p. 138; Kupers & Wilkinson, 2014, p. 6). It is important to note that Wack, like Kahn, used the analysis of global and industry data to support his scenario planning efforts (Wack, 1985a; Wack, 1985b). Wack's process for scenario development differed from what is generally touted as scenario planning today in that he and his team at Shell prepared the scenarios and then presented them to

decision makers (Wack, 1985a). The scenario planning process described by many scenario planning books and consultants in the 21st century describe a process that incorporates the use of participants to develop the scenario logics (“plots of the scenarios”, Chermack, 2011, p. 138), some even promote the idea that participants will write the entire scenario stories.

Wack did not offer a simple definition of scenario planning. What Wack offered instead were insights into what comprises meaningful scenario work in terms of organizational effectiveness. The following are brief yet insightful statements that represent his thinking and experienced rationale regarding the construction and use of specific scenario logics (“plots of the scenarios”, Chermack, 2011, p. 138).

- “You should have a clear, structured view of what you want your company to be, which precedes your view of what you want your company to do (investing, divesting, penetrating new markets, and so forth).” (Wack, 1985b, p. 10)
- “Scenarios deal with two worlds: the world of facts and the world of perceptions. They explore for facts but they aim at perceptions inside the heads of decision makers. Their purpose is to gather and transform information of strategic significance into fresh perceptions. (Wack, 1985b, p. 3)
- “Scenarios must help decision makers develop their own feel for the nature of the system, the forces at work within it, the uncertainties that underlie the alternative scenarios, and the concepts useful for interpreting key data.” (Wack, 1985b, p. 3)
- “Scenarios serve two main purposes. The first is protective: anticipating and understanding risk. The second is entrepreneurial: discovering strategic options of which you were previously unaware.” (Wack, 1985b, p. 9)

Scenario planning, as generally described in the literature, has predominantly been a practice-driven business discipline. The majority of scenario planning oriented articles tend to extol the usefulness of scenarios (Schoemaker, 1995; Jarratt & Mahaffie, 2009; Coates, 2000; Schnaars, 1987), but generally fail to provide more than anecdotal evidence that it has a positive effect on an organization. Many of these writings espouse a process that contains a facilitator-led gathering of company decision makers who eventually reach a consensus in the identification of what business variables fall into a “high uncertainty” and “high impact” quadrant of a 2 x 2 matrix which will eventually be converted into one or more fictitious stories about a company’s future as seen through the lens of the scenario planning participants. Many scenario planning practitioners agree on that format (Ringland, Lustig, Phaal, 2012; Schwenker & Wulf, 2013; Chermack, 2011). Most scenario planning practitioners and authors also mention the fact that scenario planning is not forecasting or another name for contingency planning because both of these processes essentially deal with known information. Forecasting tends to be extrapolation of known information and contingency planning tends to deal with specific information that requires some type of specific response. A major difference between scenario planning and these two other forms of planning is the fact that scenario planning attempts to change mental models and develop shared vision (Wack, 1985a; Porter, 1985, p. 446-448; De Geus, 1997, p. 46; Schwartz, 1991, p. 6; Rigby, 2013, p. 48; Wilkinson, 2009, p. 107-109).

With regard to scenario planning as a practitioner-led practice, it is vital to identify one important, but often overlooked fact: most well-recognized scenario planners throughout the past 44 years (current year is 2015 minus Pierre’s arrival at Royal Dutch/Shell Group in 1971 marking the beginning of Shell’s meaningful experience with scenarios) have been employed by Shell or have received scenario planning training from someone who had worked for Shell as a member of the scenario planning team. Therefore, lacking theory and research-based evidence to the contrary from this body of scenario planners, especially former members of the Shell scenario planning team, it is easy to imagine how an organization’s decision makers could be highly reluctant to engage in scenario planning.

It is suspected a fairly significant reason more is not generally known about scenario planning by organizational decision makers could be its absence from graduate business schools’ curricula.

Foundational Studies

Two foundational studies sought to determine the extent to which Fortune 1000 companies were using scenario planning (Linneman & Klein, 1979; Linneman & Klein, 1983). To overcome a lack of convention in terminology, the authors used the term multiple scenario analysis (MSA). The MSA process that Linneman and Klein sought to learn more about is most commonly known today as scenario planning. Their first study clarified two important points for any scenario planner, namely (1) there was no common definition of MSA and (2) “there is no one procedure for carrying out MSA” (Linneman & Klein, 1979; Linneman & Klein 1983). To address the variation in terminology the authors provided the following clarity before posing their survey questions to research participants (Linneman & Klein, 1979; Linneman & Klein 1983). Multiple scenario analysis involves essentially:

- Developing two or more scenarios portraying different future environments.
- Developing strategies, taking into consideration the ‘variable future’ as portrayed by these scenarios.
- Asking, does your company use multiple scenario analysis—on a formal basis—in long range planning at the corporate level?
- 22% of 214 companies that responded in the 1977 survey and 50% of the 215 companies that responded to the 1981 survey reported using MSA.

Although the authors mentioned some of their respondents used in-house talent and others used outside consultants, there is no indication of where or how these highly specialized scenario planning skills were learned or obtained.

The results of these two foundational studies are important for two key reasons. First, they indicated that the use of scenario planning was on the rise and would continue to rise so that its use would be considered a best practice. Additionally, considerable additional literature since these studies have echoed the position that scenario planning use was on the rise (Schnaars, 1987; Coates, 2000; Millett, 2003; Ramirez, Selsky, Van Der Heijden, 2008). Simultaneously, reputable, data-driven studies show the actual use of scenario planning is moderate to low (Rigby & Bilodeau, 2007; Rigby & Bilodeau, 2011). While these claims and reports are not by definition necessarily in conflict, it seems they at least validate the need to continue to study the frequency and intensity of scenario planning use by U.S. companies.

The second key contribution of the Linneman and Klein studies (1979; 1983) is that they focused on Fortune 1000 corporations. Fortune 1000 companies may be the most convenient and practical population in which to study scenario planning practices because they possess the resources to invest in promising planning processes whereas businesses with lesser revenue may not have the inclination to make that type of investment in a less well researched and proven practice. However, it seems prudent to study the use of scenario planning by small to medium sized enterprises since they comprise the largest number of businesses in the U.S., employ the most workers, and generate the most revenue within the U.S. economy.

Espoused Benefits of Scenario Planning

The following examples characterize the kinds of espoused benefits of scenario planning that tend to lack research-based data to support them:

- A.T. Kearney, a consulting company, stated the benefits of scenario planning include: “a broader field of vision; a better understanding of the world; more robust strategic planning” (Retrieved from <http://tinyurl.com/oxobmvc> on April 16, 2014 by Jerry Zellars).
- Paul Laudicina (2012), former chairman of A.T. Kearney, stated scenario planning “can be used to set strategy, serve as an early warning, and enhance communication.”
- Ringland, et al. (2012, p. 149) stated that scenarios are a “way for an organization to understand complexity and make it accessible to the whole organization”.
- Schwenker and Wulf (2013) used a process they called “scenario-based strategic planning”, in other words scenarios underpin strategic planning.

- Porter, in his book *Competitive Advantage* (1985, p. 447) stated: “Scenarios are a powerful device for taking account of uncertainty in making strategic choices. They allow a firm to move away from dangerous, single-point forecasts of the future in instances when the future cannot be predicted.”
- Korte and Chermack (2007) explored the notion that the use of scenario planning might be able to help change occur in organizations because a core attribute of scenario planning is affecting change of mental models and, hopefully creating shared mental models.
- Wade (2012, p. 10) claimed the key benefit of the process is “...open your eyes to different ways the future might (i.e., could) develop, and with these insights, you’re more likely to make more flexible, more thoughtful, and better decisions today.”
- Dennis List (2005, p. 140) stated, “...one of the main outputs of futures exercises is ‘scenario learning’ – an increase in awareness of future possibilities among those who take part in a futures project.” Assuming all scenario planning participants actually participate in the scenario development process, then it stands to reason that learning occurs, therefore a major benefit is learning.
- Finally, Pierre Wack (1985a, p. 74), undoubtedly the most widely recognized figure in the realm of scenario thinkers, offers the following: “Scenarios help managers structure uncertainty when (1) they are based on a sound analysis of reality, and (2) they change the decision makers’ assumptions about how the world works and compel them to reorganize their mental model of reality.”

Many scenario planning authors have stated that the use of scenario planning is on the rise in the U.S. (Rigby & Bilodeau, 2011; Rigby & Bilodeau, 2007; University of Oxford, 2013a; Ramirez, Selsky, Van Der Heijden, 2008; Scenario Planning, 2008), though some are clear that the evidence is indirect (University of Oxford, 2013a; Ramirez, et al., 2008). Ramirez (University of Oxford, 2013a) indicated that confidentiality might skew what is known about the actual use of scenario planning.

It is logical to imagine that scenarios and related by-products may contain confidential information about the organizations that engage in scenario planning, therefore, the organization using it may not want to divulge the fact that they engage in this type of planning. Claims of increased use of scenarios (Ramirez, et al., 2008; University of Oxford, 2013a) rest on three important indirect indicators. They are (1) increased number of publications about scenarios (perhaps as many as 2,000+ per year); (2) increased service providers (e.g., consultancies) claiming that organizations are increasing their use of scenario planning, and (3) increasing applicants for Oxford Scenarios Program (five-day, in-residence scenario planning course at the University of Oxford, United Kingdom). While these indicators may provide additional anecdotal evidence regarding interest in scenario planning, they do not constitute evidence that scenario planning use is increasing.

Thoroughly reviewing the scenario development and scenario planning literature reveals a wealth of anecdotal information and success stories related to its value proposition (Bradfield, et al., 2005, p. 804; Kupers, & Wilkinson, 2014). One specific example of anecdotal information is captured in the following statement: “The sheer fact that the organization has maintained the practice for over forty years provides further reassurance: would an organization be likely to sustain an ineffective practice for such a long time, especially in the context of the changing fashions of strategy and planning approaches? This longevity hints at a value beyond directly measurable business impact.” (Kupers & Wilkinson, 2014, p. 23) While such a statement might seem reasonable to the casual reader, to the scholar it most likely falls short of the standards by which rigorous, repeatable, and peer reviewed conclusions can be made.

A review of the significant scenario planning literature produced over the past 40 years produced seven examples of theories relevant to scenario planning (Chermack & Swanson, 2013, p. 161). Beyond that, the majority of what is written about scenario planning appears to be based on some derivative of what Potter and Quill (2006) refer to as Practice-based Research. Potter and Quill recognized that while theory can drive practice, practitioner-level (applied) research can drive theory development. What they advocate simply requires practitioners to design and apply fundamental research strategies to their

practice and then direct their findings toward scholars for further research and perhaps theory development. Their research proposition seems very straightforward, but very little of what they advocate seems to have actually occurred within the realm of scenario planning.

Scenario planning has been an instance in which practice has led to theory (Boyer, 1990; Chermack & Swanson, 2013; University of Oxford, 2013b). Now that scenario planning enjoys its first attempts at theorizing, Boyer's exhortations (1990) related to the four distinct types of scholarship (discovery, teaching, integration, and application) can be energized to evaluate and nurture practice-based research. In fact, by adopting the logic of Potter and Quill (2006, p. 20) who stated "...systematic inquiry into the systems, methods, policies, and programmatic applications of public health practice" and converting it to a statement about scenario planning ("...systematic inquiry into the systems, methods, policies, and programmatic applications of scenario planning...") there seems to be a path to the natural coupling of the talents of scholars and practitioners for the purposes of qualitatively and quantitatively documenting the variables and outcomes of the scenario planning process.

It is important to clarify that the discussion surrounding a potential lack of rigor in the development of scenario planning is not intended to distract or demean any of the past or on-going scenario work that is occurring around the world. Rather the purpose is to encourage scenario planning professionals to consider constructing their own theories, conducting the relevant research, and then reporting what is discovered in journals (e.g. popular, scholarly, and professional) and popular literature.

Table 5 provides a non-exhaustive list of persons generally associated with scenario planning. The purpose of the overview is to help the reader learn the names and understand the academic achievements of prominent scenarists who have contributed to the understanding of scenario planning; many persons on this list are actively engaged today in the study and application of scenario planning.

TABLE 5
SCENARIO PLANNING PRACTITIONERS, AUTHORS, AND RESEARCHERS

<u>Name</u>	<u>Degree</u>	<u>Name</u>	<u>Degree</u>
Bishop, Peter C.	PhD	Ogilvy, Jay	PhD
Chermack, Thomas, J.	PhD	Porter, Michael E.	PhD
Coates, Joseph	PhD	Ramirez, Raphael	PhD
Dator, James	PhD	Rigby, Darrell K. (5)	MBA
Foster, John M.	PhD	Ringland, Gill	MSc
Georgantzas, Nicholas C.; Acar, William	PhD; PhD	Schoemaker, Paul	PhD
Godet, Michel	PhD Statistics; PhD Economics	Schnaars, Steven P.	PhD
Ilbury, Chantell	Executive MBA	Schwartz, Peter	BS
Jarratt, Jennifer	MSc	Schwenker, Burkhard; Wulf, Torsten	PhD; PhD
Kahane, Adam	MA; MA	Schultz, Wendy	PhD
Kahn, Herman	MSc	Selin, Cynthia	PhD
Klein, Harold E.; Linneman, Robert E.	PhD; PhD	Sunter, Clem	PPE
Laudicina, Paul	BS	Van Der Heijden, Kees	Unknown, Delft University of Technology
Lynham, Susan	PhD	Wack, Pierre	BS
Mahaffie, John	MA, MA	Wade, Woody	MBA
Millett, Stephen M.	PhD	Wilkinson, Angela	PhD

While the literature about scenario planning tends to be positive, it does generally acknowledge there are several significant obstacles the practice needs to overcome such as: lack of theory, lack of common definitions, no common process, limited (thus far) ways to assess value, and the processes are generally believed to be time-consuming which increases overall organization costs (Bradfield, et al., 2005; Schwenker & Wulf, 2013; Van Der Heijden, 2005). Also, directly to the point of this research project, it was recognized early on that business researchers largely ignored the topic (Schnaars, 1987).

As one reviews scenario planning literature, it is logical to wonder how and where scenario planning is taught. An obvious place to start is to try and determine if scenario planning is a subject taught in graduate-level courses offered at the top rated 100 U.S. business schools.

Summary

This review of literature raises two interesting questions about the planning discipline known as scenario planning:

- Why do most of the journal articles related to scenario planning lack quantifiable data related to the effectiveness or non-effectiveness of that process?
- Is the scenario planning construct and processes taught at MBA (Master of Business Administration) and other graduate level business programs in U.S. business schools?

The purpose of this study focused on the second question by asking faculty members of the top rated 100 U.S. graduate business schools if scenario planning has a role in U.S. business schools' curricula.

METHODOLOGY

The selected approach to determine the extent to which the scenario planning construct is being taught at the top rated 100 graduate business schools in the U.S. was to conduct a survey of some faculty members representing those institutions. In addition to the survey, the researcher reviewed the curriculum of each top rated 100 business school in the U.S. to determine if scenario planning was offered as either a standalone for-credit course or as a component of another course. It is important to note that as the researcher reviewed the schools' curriculum, the type of scenario planning instruction that was being sought was the type that included the processes associated with the scenario planning processes previously identified in this paper.

The study was conducted in three phases. Phase one was a pilot survey that was sent to 130 faculty members at some of the 100 top rated graduate business schools in the U.S. Phase two used the results of the pilot study to assess and refine the development of a final survey designed to answer the research question. The top rated 100 graduate business schools in the U.S. were identified from the online, U.S. News & World Report Best Grad Schools (U.S. News & World Report EDUCATION, 2014). A group of 15 faculty members were selected (selection was a somewhat of a quasi-random type of sampling meaning most faculty lists were alphabetical within a particular discipline [i.e., accounting, finance, marketing, etc.] so selections were made from the lists, however, some effort was made to consider gender if possible and in some cases include non academics such as adjunct faculty) from the business school's online list of faculty members (three members from five business school disciplines = 15 faculty members per school) from each of the top rated 100 graduate business schools. Each one of the selected faculty members was sent a survey to gather information about the teaching of scenario planning at their institution. Phase three was a search of each surveyed graduate business school's website searching for evidence about whether or not scenario planning was being taught as a stand alone, for-credit course, part of some other course, taught as a short course, or was not part of the school's curricula.

Research Question

The research question that directed this study was: Does scenario planning have a role in U.S. business schools' curriculum? (Note, the word "role" is used because of its nonspecific nature,

specifically, the researcher did not want to influence or limit the way faculty members would interpret the term scenario planning.)

Population and Sample

The research effort began by identifying a list of the top rated 100 graduate business schools in the U.S. The most accessible list was the U.S. News & World Report Best Grad Schools annual listing online (U.S. News & World Report EDUCATION, 2014). Faculty member email addresses were collected from each school's website. The faculty members chosen for the survey represented some or all of the major departments within the business school (e.g., accounting, economics, finance, management, marketing, strategy management, organizational behavior, etc.). The rationale for selecting such a diverse group of specialties is because many, if not all, of these disciplines would potentially be represented in a scenario planning process at the organization level.

The pilot survey contained 15 questions (approved by Colorado State University's Institutional Review Board). That survey was conducted between January 14, 2014 and January 31, 2014. The pilot survey was sent via email using an online survey service (www.SurveyMonkey.com) to 130 faculty members representing a portion of the business schools identified as the study's target population. The instructions within the survey included a statement informing the potential participants that their responses would be anonymous and they would not be included in the final email survey list. Five responses to the pilot study were received representing a four percent (4%) response rate.

The lessons learned from the pilot survey experience included modifications to the arrangement of the questions; the perceived need to collect demographic information; reduction of survey complexity; the need to provide succinct definitions of topics that may not be familiar to some respondents; the creation of reminder correspondence sent to those who did not respond.

Scholars of sample size have indicated that in order to obtain representativeness of the 100 top business schools in the U.S., 80 unique responses were required ($p=.50$, $t = 1.96$ for categorical data) (Bartlett, Kotlik, & Chadwick, 2001; Krejcie & Morgan, 1970). That is to say, because the target population was relatively small, responses were required from 80 of the top 100 graduate business schools.

The final survey (approved by Colorado State University's Institutional Review Board) began on February 10, 2014 and concluded on February 24, 2014. It consisted of 23 questions (see the *Views of Scenario Planning Utility* section later in this document). The survey incorporated information received via the pilot survey and a critique of the draft final survey by a cohort of doctoral students. The researcher used the faculty member email address database compiled earlier from the top rated 100 U.S. graduate-level business schools via each school's website. As with the pilot survey, only a portion of each major department's faculty members were contacted for the survey. The faculty members chosen represented some or all of the major departments within the business school (e.g., accounting, economics, finance, management, marketing, strategy management, organizational behavior, etc.). The survey was sent via email from the SurveyMonkey website, to 15 faculty members from each of the top rated 100 U.S. graduate-level business schools. A total of 1,500 faculty members were sent an invitation to participate in the survey.

Data Collection

An email containing an overview of the survey process was sent to all 1,500-faculty members comprising the survey population. No identifying information was collected from participants. Those opting to take the survey could opt out at any time once they began taking the survey. Only fully completed surveys were used for data analysis.

Data Analysis

The data analysis strategy was simply to analyze participant responses using descriptive statistics.

RESULTS

The respondents to the survey were anonymous to the evaluator. Of the 1,500 surveys emailed to eligible faculty members, 109 survey responses were received but only 78 of the 109 surveys were complete and useable for the purposes of this study.

Characteristics of the Universities and Faculty Teaching Scenario Planning

Fifty-three respondents (68% of total respondents) represented the following teaching areas: marketing, strategic management, other, strategic supply chain, accounting and organizational behavior. Forty-seven respondents (64% of total respondents) had more than 10 years teaching experience, 33 respondents (45%) had more than 20 years teaching experience. Forty-five respondents (58%) had less than 10 years of for-profit business work experience, 34 (44% of total respondents) had five years or less for-profit business work experience. Forty-one (53%) of the 78 respondents had not owned or operated a business.

Survey Question #9 asked the participant to select the definition they thought most closely represented their understanding of the business term scenario planning. It was not surprising to learn that 40% of the respondents identified Schwartz's (1991) definition and fifteen percent (15%) identified Porter's (1985) definition because each person is so well known for their association with business processes in general and the term scenario planning especially in the case of Schwartz (former head of scenario planning at Shell). Although there are only a few references to the terms scenario and scenario planning appearing on the schools' website, the data indicates there may be a broader exposure to the construct than one might suspect as thirty-one percent (31%) of the responses stated it is taught as an element of a MBA program, twenty-eight percent (28%) indicated it is taught as an element of a for credit course, and twenty-three percent (23%) reported it is taught as an element of an Executive MBA program.

Self-Reported Experiences with Scenario Planning

When asked about their familiarity with scenario planning for business, 35 responses (30%) indicated "academic awareness only." The most surprising of all the findings to the researcher were the responses to question number 12. The purpose of the question was to try and determine if the respondents' understanding of scenario elements and the implied purpose of using scenarios matched the scenario planning process construct often identified in the literature (Chermack, 2011; Schoemaker, 1995; Van Der Heijden, 2005; Ogilvy & Schwartz, 1998). Most scenario planning literature indicates the results of the various processes will become a set of one to four written scenarios, which are stories about imagined futures. However, the word "story" is believed by only 13 (17%) of the respondents to possess "High Significance"—therefore, the researcher's surprise came from the fact that the essence of the word scenario is about creating a story.

Also, most scenario planning literature stresses the purpose of the process is not related to prediction, but 32 of the responses (43%) indicate the belief that they are highly related. Thirty-eight (51%) of the responses rated the word "contingency" as highly significant. The fact that respondents deemed the word "contingency" as highly significant may stem from the idea that once scenarios identify a future, persons may then conduct contingency planning to respond to specific items within a particular scenario. In the Bain & Company Management Tools survey, scenario planning and contingency planning are combined into one survey element and reported as a single element (Rigby & Bilodeau, 2007; Rigby & Bilodeau, 2011). Below is Bain & Company's statement related to the two forms of planning: "Scenario Planning allows executives to explore and prepare for several alternative futures. It examines the outcomes a company might expect under a variety of operating strategies and economic conditions. Contingency Planning assesses what effect sudden market changes or business disruptions might have on a company and devises strategies to deal with them. Scenario and contingency plans avoid the dangers of simplistic, one-dimensional or linear thinking. By raising and testing various 'what-if' scenarios, managers can brainstorm together and challenge their assumptions in a nonthreatening, hypothetical environment before

they decide on a certain course of action. Scenario and Contingency Planning allows management to pressure-test plans and forecasts, and equips the company to handle the unexpected.” (Rigby, 2013, 47)

Finally, in the parlance of scenario aficionados, the words “challenging, plausible, and relevant” (Chermack, 2011, p. 127) are usually thought to be foundational to creating meaningful scenarios; when the percentage of “High Significance” and “Moderate Significance” were combined, the three words scored fifty-nine percent (59%), ninety percent (90%), and eighty-eight percent (88%) respectively. Ninety-six percent (96%) of the responses recognized the word “future” was highly to moderately significant to scenario planning, while ninety-one percent (91%) of the responses identified the word “uncertainty” as highly to moderately significant to scenario planning. Although these percentages seem to indicate a high level of understanding, the fact that the survey response rate was so low, causes one to question their relevance to any widespread understanding about scenario planning.

Views of Scenario Planning Utility

Other seemingly important survey findings were: sixty-two percent (62%) of the responses indicated all businesses should use scenario planning; fifty-eight percent (58%) thought the optimum time horizon of scenario planning should be no more than five years; seventeen percent (17%) suggested scenario planning supports strategic planning; sixteen percent (16%) reported scenario planning helps to identify potential future signals that may affect the business; ten percent (10%) answered that scenarios help predict the future of their industry; twenty-four (24%) identified the reason more businesses do not use scenario planning is a lack of awareness about what scenario planning is or purports to accomplish; and the two top reasons reported to teach scenario planning were (1) it supports strategy development, thirty-one percent (31%), and (2) it expands students’ awareness of planning considerations such as mental models, systems thinking, and emergent and deliberate strategies, twenty-nine percent (29%).

The following is a list of the survey questions and the most prominent response to each question. As one reviews the list of findings produced by the survey, it is important to keep in mind the low survey response rate precludes the assertion that any of the findings are meaningful. (Note: For those wishing to discuss the actual raw data associated with this research, please contact the author at Colorado State University.)

Question #	Question	Composite Response
1	What is your current title at your college/university?	Professor
2	Which business discipline listed below most closely relates to your PRIMARY teaching responsibility?	Teach within Marketing or Organizational Behavior schools/departments
3	How long have you been a full-time business school faculty member?	Full-time faculty 20+ years
4	My actual full-time (for-profit) business experience is:	Possess 1-5 year full-time, for-profit, business experience
5	I have owned or operated a business with ANNUAL REVENUE (amount):	Have NOT owned or operated a business
6	The definition of business strategy I MOST closely identify with is:	Believe (business) strategy is roadmap to reach goals which are guided by values
7	The business author whose published work(s) has/have contributed the MOST to my understanding of business strategy is:	Michael Porter (Ph.D., Harvard) informed their understanding of business
8	Indicate your familiarity with the business term strategy (please select ALL applicable responses):	Familiarity with the business term "strategy" is based on academic awareness.
9	Please select the definition you think MOST closely represents your understanding of the business term Scenario Planning.	Peter Schwartz's (author of The Art of the Long View) definition of scenario planning represents their understanding of that subject.
10	The published author I MOST closely associate with business Scenario Planning is:	Associate Michael Porter (Ph.D., Harvard) with scenario planning.
11	Indicate your familiarity with Scenario Planning for business (please select ALL applicable responses):	Familiarity with scenario planning tends to be academic awareness only.
12	Please evaluate the significance of the following words to business Scenario Planning	Understanding of key words used with scenario planning is less than desirable (researcher's judgment).
13	At my institution, business Scenario Planning is (please mark ALL that apply):	Claim that scenario planning is taught as an element of the MBA program at their institution.

Question #	Question	Composite Response
14	I have facilitated or helped facilitate a Scenario Planning session or workshop for a business entity (for-profit).	Have NOT facilitated or helped facilitate a scenario planning session or workshop.
15	I think business Scenario Planning can be used effectively by (please mark ALL that apply):	Think all business can effectively use scenario planning.
16	I think a business cannot effectively utilize Scenario Planning without the full support of the Chief Executive Officer (CEO).	Are undecided about whether or not a company's CEO needs to support the use of scenario planning.
17	I think the optimum time horizon a business should consider when conducting Scenario Planning is:	Think 3-5 years is the optimum time horizon for scenario planning.
18	Please mark the potential reason(s) you think businesses use Scenario Planning	Think two major reasons to use scenario planning are: support strategic planning and identify potential future signals that may affect the business
19	Please mark the potential reason(s) you think businesses DO NOT use scenario planning	Think lac of awareness about scenario planning may contribute to businesses not using it
20	Please mark the reason(s) you think teaching Scenario Planning at your institution is necessary	Think the two reasons to teach scenario planning at their graduate business school are: supports strategy development and expands students' awareness of planning considerations such as mental models, systems thinking, emergent and deliberate strategies, etc.
21	Please mark the reason(s) you think Scenario Planning should NOT be taught at your institution	Think scenario planning should be taught at their institution.
22	I view Scenario Planning as a tool to be used with strategic planning.	Think scenario planning is a tool to be used with strategic planning.

The third phase of the research effort to answer the research question was the review of each website from the top rated 100 graduate business schools in the U.S. The website search process was simply a search for the term scenario planning using the school's website. If the search term produced a result, the link was explored further in an effort to ascertain the use of the scenario planning term. The following is a list of 20 (20%) of the top rated 100 business schools researched for this study, that claim to teach or publish some type of information pertaining to scenario planning:

- Wharton University of Pennsylvania
- Massachusetts Institute of Technology
- Northwestern University (Kellogg)
- Dartmouth College (Tuck)

- New York University (Stern)
- University of Virginia (Darden)
- University of California—Los Angeles (Anderson)
- Cornell University (Johnson)
- University of Minnesota—Twin Cities (Carlson)
- Georgetown University (McDonough)
- University of Southern California (Marshall)
- University of Notre Dame (Mendoza)
- Purdue University—West Lafayette (Krannert)
- Fox School of Business (Temple University)
- Joseph M. Katz Graduate School of Business, University of Pittsburgh
- John Cook School of business, Saint Louis University
- San Diego State University
- University of Miami
- University of Tulsa (Collins)
- Rensselaer Polytechnic Institute (Lally)

A search of the top rated 100 graduate business schools websites did not produce evidence that scenario planning is taught as a stand alone, for-credit course that is part of their standard graduate business school curriculum.

DISCUSSION

The purpose of this study was to attempt to answer the question, “Does scenario planning have a role in U.S. graduate business schools’ curriculum?”

According to study participants, scenario planning is not being taught as a standalone, for-credit, graduate-level course in the top 100 graduate business schools in the U.S. However, some courses do include the construct of scenario planning. It is important to remember, the sample in this research effort is not representative of the population do to the low sample size.

The research began with the distribution of 1,500 surveys to faculty members representing the 100 top rated graduate business schools in the U.S. In response to that distribution, 78 useable responses (5.2% response rate) were received representing 61 (61%) of the business schools surveyed.

The general findings from this survey seem to indicate that faculty members have an openness to the scenario planning construct, think it can benefit almost any size business, and is important to strategy development. Additionally, it was learned that while scenario planning does not seem to be taught as a standalone, for-credit course, some courses do include the construct of scenario planning within the curriculum. Interestingly, thirty-seven percent (37%) of the respondents report they have either facilitated or helped facilitate a scenario planning session or workshop for a for-profit business entity.

Although the graduate business school participants in this study did not indicate they teach a standalone, for-credit course singularly focused on scenario planning, it was learned via a web search that one school teaches scenario planning within its executive course and one school offers an online scenario planning course as part of a certificate program. Bishop, et al., (2007) indicate that scenario planning has been taught in the Master’s program at the University of Houston for 30 years. Further inquiry into the University of Houston program reveals, at least at the writing of this article, scenario planning does not appear to be taught as a standalone course but it is an element of a course. It is possible a scenario planning for credit course may have existed before this study, but has been removed as a standalone course.

Currently, there is a great debate occurring within the United States’ graduate-level business schools’ Master of Business Administration (MBA) programs having to do with whether or not the current curricula is producing the type of graduate needed for the twenty-first century business environment

(Datar, Garvin & Cullen, 2010; Datar, Garvin, & Cullen, 2011; Verity, 2003; Dierdorff & Rubin, 2011; Dierdorff & Rubin, 2013). There seems to be some consensus around developing more scholarly and experientially (McCarthy & McCarthy, 2006) oriented curriculum. It is thought that MBA students need to receive more exposure to problem finding, problem framing, project scoping, creative thinking, integrative thinking, and critical thinking (Datar, et al, 2010, p. 330). A process such as scenario planning, a process that admittedly is comprised of as much art as it is science (Wack, 1985a, 74) could serve as an informational course within any MBA curricula that naturally leverages each of the areas Datar, et al. (2010) indicate would improve MBA programs. Additionally, scenario planning is a platform from which MBA students could gain an experience of applied scholarship (McCarthy & McCarthy, 2006) that might serve as a means for demonstrating business knowledge, facilitation skills, teamwork, and leadership—all sought after traits of a twenty-first century leader.

LIMITATIONS

There are two key limitations that should be noted in the consideration of this research. They are 1) a low response rate, and 2) a limited survey population. Each of these warrants some explanation.

The most significant limiting factor associated with this study was the low survey response rate. The low response rate indicates that the responses are not likely to be representative of the survey population. It is entirely possible there is much more or much less scenario planning teaching activity in the business schools that did not have representation in the survey results.

The second key limitation may be the fact that the research question focused on business schools in the U.S., the survey population was necessarily limited. It is entirely possible that the top 100 graduate business schools may not be the proper place for teaching scenario planning for a variety of reasons. However, in the end, this study did not reveal a conclusive set of results concerning business schools in the U.S.

FUTURE RESEARCH DIRECTIONS

Future research might consider several possible, logical follow-up approaches to this study. Some examples are: 1. A survey of the top 100 graduate international business schools; 2. A survey of the top 100 graduate U.S. education schools; 3. A survey of Fortune 1000 corporations. Each of these potential research efforts is briefly described in the following paragraphs.

Survey the Top 100 Graduate International Business Schools

A Google Search for the “top 100 graduate international MBA programs that teach scenario planning” produced the “Foresight Graduate Programs – Global List” page of the “Acceleration Studies Foundation” (<http://www.accelerating.org>). On that site only two schools were listed that mention scenario planning: (1) Italy’s Leonardo Da Vinci Online University (Master of Science in Scenarios for Innovation Management (Business Administration)); (2) University of Strathclyde Business School, Center for Scenario Planning and Future Studies (no degree listed).

Many global consulting companies such as Accenture, McKinsey & Company, Bain & Company, Boston Consulting Group, A.T. Kearney, Deloitte Consulting LLP (Monitor Deloitte) and PricewaterhouseCoopers all offer some form of scenario planning capability to their clients. Since there does not seem to be a robust scenario planning capability in the U.S. graduate-level business schools, it is feasible that non-U.S. business schools may be producing a cadre of people possessing a scenario planning background. Note: The Financial Times 2013 list of the top business schools (<http://rankings.ft.com/businessschoolrankings/global-mba-ranking-2013>) in the world is comprised of 50 U.S. schools, almost all of who have been surveyed in this research effort.

Survey the Top 100 Graduate U.S. Education Schools

The results of combining the term scenario planning with word education in Google Search (Table 4) produced a strong query tally between 1980 and the present. Therefore, it might be illuminating to conduct a survey of the top 100 graduate U.S. schools of education to determine if scenario planning is part of the education curricula.

Survey the Fortune 1000 Corporations

The third type of research project that might be undertaken is a research study of the Fortune 1000 companies to determine if they conduct scenario planning, plus determine how they conduct such efforts. It would be interesting to understand where the talent used to conduct the scenario planning received their training, regardless of whether or not the talent resides within the organization.

CONCLUSIONS

The purpose of this study was to try and answer the question, “Does scenario planning have a role in U.S. graduate business schools’ curriculum?” It turns out the question actually has more than one potential appropriate answer. Although the small number of survey responses did not offer the option to state in a definitive way there are no for-credit scenario planning courses being offered as part of the top rated 100 U.S. graduate business school curricula, the responded group reported no such instance. A search of the website for each school did not reveal a for-credit, standalone scenario planning course being offered. For many who think scenario planning has a role to play in business processes, the overall results of this research should serve as encouragement that scenario planning is, at a minimum, part of the business discussion in at least 20 percent of the 100 top rated business schools in the U.S., obviously this topic requires further study.

What seems increasingly clear is simply this: businesses and their employees face uncertain times, now and into the future (Wack, 1985a; Schwenker & Wulf, 2013, p. 22-24). Finding tools for blending internal and external resources will be increasingly critical in managing uncertainty and providing support for leaders and the challenging decisions they face. Scenario development, guided by skilled facilitators surely has the potential to improve many aspects of almost any business, but it requires rigorous study and collaboration by competent practitioners and scholars to fully understand and advance its major contributions.

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