Scenario Planning: Human Resource Development's Strategic Learning Tool

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Abstract. This article introduces the concepts of scenario planning and HRD. A discussion of the major areas of overlap is provided, the links are clarified in a strategic context, and clear opportunities for both researchers and practitioners are outlined. This article also provides a short overview of what is to come in this issue of *ADHR*. The authors carefully outline this issue and each of its major points for optimizing HRD professionals as they work to leverage scenario planning as HRD's strategic learning tool.

Keywords: *scenario planning; strategic HRD; strategic planning*

In times of change, learners inherit the Earth, while the learned find themselves beautifully equipped to deal with a world that no longer exists

—Hoffer, 1989, p. 13.

Helping organizations prepare for the future has historically been a concern of the Human Resource Development (HRD) profession (Swanson, 1994; Torraco & Swanson, 1995). This concern has taken many forms, including identification of future workforce demands (Swanson, 1982), formulation of organizational strategy that considers the capacity of existing and available human resources (Garavan, 2007; Gilley & Maycunich, 2000; Walton, 1999), leading group-process strategic planning efforts (Yorks, 2005) and more recently the building

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of strategic capacity for comprehending and dealing with the future through scenario planning (Chermack, 2004; Torraco & Swanson, 1995).

The fundamental position being advocated in this article (as well as throughout this issue of *Advances*) is that HRD professionals should capture and develop the research and practice of scenario planning as the profession's primary strategic learning tool. Aside from recruiting scenario planning experts to guide the alternative futures exploration in organizations, HRD professionals have been gaining recognized expertise in scenario planning methods themselves (Chermack, 2005a; Chermack, Lynham, & van der Merwe, 2006; Chermack, van der Merwe, & Lynham, 2007; Lynham, Provo, & Ruona, 1998; Provo, Lynham, Ruona, & Miller, 1998; Swanson, Lynham, Ruona, & Provo, 1998). Scenario planning expertise has grown within the HRD community and has formed the basis and motivation for this issue of *Advances in Developing Human Resources.*

Two substantial opportunities exist in the current status of scenario planning research, theory and practice, which can be categorized as emerging and somewhat immature. First, scenario planning practices are increasing around the world, and in a variety of organizations (Bradfield, Wright, Burt, Cairns, & van der Heijden, 2005; Chermack et al., 2006, 2007). Authors claim that enough variety exists in scenario planning methodology to allow total freedom to practitioners in terms of technique (Bradfield et al., 2005; Chermack, Lynham, & Ruona, 2001) and this is consistent with any phenomenon firmly positioned in a practitioner context. Useful research moving forward in this domain will examine which techniques are most effective and why, with an eye toward establishing the most effective methods in scenario planning.

Second, the status of theory and research that support scenario planning present an additional opportunity. The University of Strathclyde Graduate School of Business has established the Center for Scenario Planning and Futures Studies under the original leadership of Kees van der Heijden and George Burt and has started generating reports and research of scenario projects (Bradfield et al., 2005; Burt & van der Heijden, 2003; van der Heijden, 2004). Chermack (2004, 2005a, 2005b) has begun an ambitious research agenda and has specifically advocated for theory development to support and investigate scenario planning practices. Other systematic examinations of scenario planning have been sporadic efforts with no longitudinal investigation (Klein & Linneman, 1981; Linneman & Klein, 1979; Phelps, Chan, & Kapsalis, 2001) and are therefore of limited value. In short, there is much to be learned about scenario planning through rigorous and disciplined inquiry.

Likely because of the tremendous uncertainty facing today's organizations (Garavan, 2007; Gilley & Maycunich, 2000; Walton, 1999), scenario planning is currently thriving in practice, a handful of European business schools and as a scattered add-on to futures studies in the United States. HRD's role in the advancement of scenario planning techniques, research, theory and practice is potentially inexhaustible. To be clear, this issue of *Advances* will make the case

for scenario planning to be recognized as the core strategic learning tool in HRD for helping organizations make sense of what they know but do not yet understand, identify knowledge gaps and purposeful knowledge creation activities, as well as explore the environment to identify drivers of change.

Purposes of the Article

There are two core purposes of this article: (a) to describe and position scenario planning as HRD's strategic learning tool and (b) to provide an outline for this issue of *Advances.* The general path of this article begins with an orientation to HRD and a presentation of the link between HRD and strategy and scenario planning. General problems with traditional approaches to strategy and generic strategic planning are examined, and scenario planning is posited as an appropriate alternative to annual executive retreats and expensive consultants that "do" strategic planning, but seem to disappear when the plan is produced. Scenario planning is posited as the necessary approach because it (a) harnesses (often conflicting) multiple perspectives, (b) challenges worldviews, and (c) builds the logic of change, thus enabling HRD to support sustainable agreements, and (d) is based in a learning perspective. This emphasis on learning is what drives individuals and organizations to reperceive their environments leading to innovative views and choices regarding organizational action.

HRD: An Orientation

A brief review of three varied definitions of HRD is provided and the common themes are presented as the underlying drivers of the link between HRD and strategy and therefore define the basis for this issue of *Advances*.

A Review: Three Definitions of HRD

Possibly the first published definition of HRD, was: "Human resource development is the process of increasing the knowledge, the skills, and the capacities of all the people in a society" (Harbison & Myers, 1964, p. 2).

McLean and McLean offered:

> HRD is any process or activity that, either initially or over the long term, has the potential to develop adults' work-based knowledge, expertise, productivity and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation or, ultimately, the whole of humanity. (McLean & McLean, 2001, p. 322)

Swanson defined HRD as a "process for developing and unleashing human expertise through training and development and organization development for the purpose of improving performance" (Swanson, 2007, p. 34).

Much has been written about the theoretical foundations of HRD (Lee, 1998; McLean, 1998; Swanson, 2001; Yorks, 2005). The intent here is not to engage in the debate of definitions or even to further that conversation, but rather to provide a brief orientation to the discipline. These three definitions of HRD have their differences, but there are common themes as well—all recognized the implicit value of *learning*, all relied on *expertise*, all focused on the *development* of knowledge and skills, and all have the development of people as the central factor.

A high value on learning, expertise and development positions the key contribution of HRD to strategy as one of a focus on learning and development—on unleashing human expertise (Swanson, 2007). Drawing from de Geus (1988) learning can be viewed as the key to competitive advantage and thereby it shifts the emphasis of planning from content to process. Given this view, methods for planning that emphasize continuous learning are the most appropriate in an environment that is highly uncertain (de Geus, 1988; Harbison & Myers, 1964; McLean & McLean, 2001; Swanson, 2007). Further, a learning orientation allows strategists to address the reduction of strategy to a simple form of decision-making by analysis (Mintzberg, 2005).

HRD professionals are also inherently focused on human factors and relationships in organizations. In defining HRD, Swanson (1994) used the phrase "unleashing human expertise" (p. 18) and this is an important distinction often used to drive interventions we advocate for in organizations. Scenario planning, aimed at revealing assumptions and *seeing* things differently (Burt & van der Heijden, 2002; Wack, 1985) is fundamentally aligned with the unleashing of human potential as an organizational advantage.

Linking HRD, Expertise, and Strategy

Torraco and Swanson (1995) defined two core strategic roles of HRD, namely that of (a) *supporting* organizational strategy and (b) *shaping* organizational strategy. Torraco and Swanson further provided a rationale for linking HRD to strategy through the fundamental organizational requirement of expertise. Their rationale was based on the following core assumptions:

1. The development of human expertise provides "a potentially inexhaustible source of ideas for further innovation and increased productivity" (Torraco & Swanson, 1995, p. 14).
2. The delineation of strategy into multiple organizational levels and the positioning of knowledge as a catalyst for growth represents a major reconceptualization of how organizations, expertise, and strategy function (Porter, 1985).
3. Strategy must be viewed both as something that can be formed, and something that forms on its own (Mintzberg, 1994).

These assumptions may seem obvious, but developing and implementing organizational strategy in harmony with these assumptions cannot be done with a mechanistic design or view that is both often too evident in business planning activities. These activities are also often divorced from HRD, thus reducing HRD's impact on strategy and continuous organizational learning strategies.

The perspective advocated here was argued clearly by Bartlett and Ghoshal (2002) when they stated, "at the heart of the problem is a failure to recognize that although the past three decades have brought dramatic changes in both external strategic imperatives and internal strategic resources, many companies continue to have outmoded strategic perspectives" (p. 34). In their argument for building competitive advantage through people, the authors concluded:

> As companies move into the war for talent and as individuals with specialized knowledge, skills and expertise are recognized as the scarce strategic resource, HR professionals must become the key players in the design, development, and delivery of a company's strategy. (Bartlett & Ghoshal, 2002, p. 37)

Indeed our view is highly aligned with the statements by Bartlett and Ghoshal (2002) and our thesis is that scenario planning is inherently more conducive to developing innovative ideas than the outmoded views they also critiqued (Bartlett & Ghoshal, 2002). Scenario planning, as an updated view of strategy, is focused on sense-making and understanding the drivers of change (van der Heijden, Bradfield, Burt, Cairns, & Wright, 2002). Scenario planning approaches harness multiple perspectives from a diverse cross-section of the organization. They are intended to involve a wide range of members of the organization in strategy development, rather than promoting a strictly top-down mode of strategic learning. Scenarios are also vehicles for exploring the emergent nature of the contextual environment and its impact on organizational strategy. Because of the tendency for the contextual environment to constantly shift, scenario planning is an iterative process, moving from scenario development to knowledge development to scenario development, allowing the reexamination of strategic initiatives amid this changing context. Finally, precisely because of its iterative and learning-based nature, scenario planning is conceptually a potential means of linking HRD, expertise, and strategy as it links thinking and acting. In the end, the goal of scenario planning is to help participants *see* their world differently so that decision-makers can catch things that were once outside their view.

Strategy and Strategic Planning: An Orientation

Mintzberg, Ahlstrand, and Lampel (1998) wrote a book titled *Strategy Safari* and in it the authors provided a classification of strategy that consisted of 10 different "schools" of strategy. These schools are provided in Table 1.

Aside from these 10 schools, strategy is commonly approached from a financial perspective (Porter, 1985), a design perspective (Chandler, 1962),

TABLE 1: Mintzberg, Ahlstrand, and Lampel's 10 Schools of Strategy

School	Theme
The Design School	Establish Fit
The Planning School	Formalize the Strategy Process
The Positioning School	Analysis, Analysis, Analysis
The Entrepreneurial School	The Vision of the CEO sets the Strategy
The Cognitive School	The Mind and its Perceptions Drive Strategy
The Learning School	Collective Learning Matters
The Power School	Negotiation Among Internal Agendas
The Cultural School	Every Voice is Heard in the Strategy Effort
The Environmental School	Cope—We Simply React to the Environment
The Configuration School	Evolve, Integrate, and Transform

a sense-making perspective (Weick, 1995), and a strategic learning perspective (de Geus, 1988). Indeed, strategy is one of the most complex phenomena to be dealt with in organizations, and three overarching philosophies of strategy have been developed by van der Heijden (1997) in an effort to describe some of strategy's basic underlying principles. These were the rationalist, the evolutionary, and the processual schools of strategy.

The Rationalist School

The rationalist school features a tacit and underlying assumption that there is indeed one best solution. The job of the strategist becomes one of producing that one best solution, or the closest possible thing to it. Classic rationalists include Igor Ansoff, Alfred Chandler, Frederick Taylor, and Alfred Sloan (Micklethwait & Wooldridge, 1997). The rationalist approach to strategy dictates that an elite few of the organizations top managers convene, approximately once each year, and formulate a strategic plan. Mintzberg (1994) listed other assumptions underlying the rationalist school:

1. Predictability, no interference from outside.
2. Clear intentions.
3. Implementation follows formulation.
4. Full understanding throughout the organization.
5. Reasonable people will do reasonable things.

The majority of practitioners and available literature on strategy is of the rationalist perspective (van der Heijden, 1997). Although it is becoming clear that this view is limited and though the belief in one correct solution wanes, the rationalist perspective is still currently alive and well.

The Evolutionary School

With an emphasis on the complex nature of organizational behavior, the evolutionary school suggests that a winning strategy can only be articulated in retrospect (Mintzberg, 1994). In this context it is believed that systems can develop a memory of successful previous strategies. In this case, strategy is thought to be a "process of random experimentation and filtering out of the unsuccessful" (van der Heijden, 1997, p. 24). The issue with this perspective is that it is of little value when considering alternative futures. This view also reduces organization members to characters of chance, influenced by random circumstances.

The Processual School

The processual school asserts that although it is not possible to deliver optimal strategies through rational thinking alone, organization members can instill and create processes within organizations that make it a more adaptive, whole system, capable of learning from its mistakes (van der Heijden, 1997, 2004). Incorporating change management concepts to influence processes, the processual school supports that successful evolutionary behavior can be analyzed and used to create alternative futures. van der Heijden (1997, 2004) offered the following examples of metaphors for explaining the three strategic schools:

1. The rationalistic paradigm suggests a machine metaphor for the organization.
2. The evolutionary school suggests an ecology.
3. The processual school suggests a living organism.

Because van der Heijden viewed scenarios as a tool for organizational learning, he advocated the integration of these three strategic perspectives. "Organizational learning represents a way in which we can integrate these three perspectives, all three playing a key role in describing reality, and therefore demanding consideration" (van der Heijden, 1997, p. 49). It is widely accepted that effective scenario building incorporates all three of these perspectives (Georgantzas & Acar, 1995; Ringland, 1998; Schwartz, 1991).

The Fundamental Shift Toward Learning

Mintzberg et al.'s (1998) first three schools (design, planning, and positioning) covered the evolution of planning from Ansoff to Porter, all based on predictive, forecast-based thinking. This is fine in a stable environment, but the global business environment began to fundamentally shift in the mid-1980s. The remaining schools intended to capture the evolution of strategy and the varying approaches to planning. The final school—called the Configuration school—is something of a catch all—allowing for the use of any and all of the other school

methods depending on the situation faced. These schools serve as a guide for quickly analyzing categories of approaches to strategy, although it is perhaps a mistake to try and classify any approach to strategy as being that of a single "school" described by Mintzberg et al. (1998).

The key contribution of Mintzberg et al. (1998) is that the early and predictive views of strategy are not useful in uncertain environments. The authors argued that when the global business environment began to shift away from stability and predictability, the strategic tools of the day that were primarily based in analysis were no longer adequate. Learning has become the most suitable tool for dealing with the new environment. Some early adopters recognized this shift and arguably the most well-known of these was Royal Dutch/Shell Oil. de Geus's article in the *Harvard Business Review* titled "Planning as learning" was as clear a mandate as any, but most organizations are only beginning to realize the impact of what it means to view strategy as a function of learning. As it happens, *learning* is something in which HRD professionals specialize. It has also been suggested that planners cling to forecast-based models because to admit that learning is the most appropriate approach to strategy means admitting that a single answer, and a single best strategy cannot be identified (Mintzberg et al., 1998), running contrary to the basis of organizational thinking throughout the last century.

Defining Strategic Learning

The view of strategic learning adopted here is based on the work of Michael (1995) in which he stated:

> It is imperative to free the idea of learning from its conventional semantic baggage. Learning used to mean (and for the most part still means) learning the answer—a static shift from one condition of knowledge and/or know-how to another. This definition of learning leads to organizational and stakeholder rigidification. But in the current and anticipated conditions of dramatic unpredictability, learning must be a continuous process involving:
>
> 1. Learning to re-perceive or reinterpret a situation,
> 2. Learning how to apply that reperception to the formulation of policy and the specification of action (including evaluation of policy and action),
> 3. Learning how to implement those policies and intended actions, and
> 4. Learning how to keep these three earlier requirements alive and open to continual revision. (p. 461)

These criteria suggest a thoroughly recursive way of being and doing. Learning, then, means learning content and, just as important, learning how to attain these learning requirements (p. 464). We propose that HRD as a discipline can facilitate this kind of learning in strategic organizational contexts by mastering and owning the tools and techniques in scenario planning. The full benefits and limitations of scenario planning will be revealed when HRD researchers have documented the outcomes of the process and HRD practitioners have mastered its implementation in complex organizational systems.

Scenario Planning—An Orientation

Scenario planning is about *seeing.* Pierre Wack, the undisputed "father" of modern scenario planning, along with Ted Newland and Napier Collyns, developed the technique at Royal Dutch/Shell Oil in the 1960s and 1970s. Pierre was something of a mystic, with roots in India and Japan, where he studied extensively. Pierre was a visual thinker, and referred to his scenario efforts as the "eyes of the pack, running ahead and reporting back to Shell what he had seen" (Tibbs, 1999, p. 6). In addition, Pierre recounted stories such as one about a gardener he met in Japan.

> The gardener pointed to a smooth bamboo trunk as thick as a person's arm. He explained that if a small pebble was thrown at it and hit the trunk even slightly off-center, it would glance off, making hardly any sound. If, on the other hand, the pebble hit the trunk dead center, it would make a very distinctive "clonk." (Tibbs, 1999, p. 8)

Pierre used stories such as this to emphasize the work he did. His goal was use scenarios to strike the mental models of the managers with whom he worked dead-center, like the bamboo stalk. If he could achieve this, he could change the basic assumptions that framed their decision-making processes. His goal was to help them *see* the world differently. In order to help them *see* they needed to be able to learn.

Scenario planning has been defined as "a process of positing several informed, plausible and imagined alternative future environments in which decisions may be played out for the purpose of changing current thinking, improving decision-making, enhancing human and organization learning and improving performance" (Chermack & Lynham, 2002, p. 376). Wack (1985) wrote, "Scenario analysis is a disciplined way to think about the future. It demands above all an understanding of the forces that drive the system rather than reliance on forecasts" (p. 143). Scenario planning is designed to support exploration of a constantly changing environment and uses multiple narrative stories about the past, present, and the future to stretch the thinking inside the organization (Burt, Wright, Bradfield, Cairns, & van der Heijden, 2006). "The most important purpose of scenarios is to shift the thinking inside the organization about what might happen in the future in the external environment" (Wack, 1985) because of what Wack called "predetermined elements" (Burt, 2006, p. 17). The importance of this point cannot be stressed enough—scenarios are neither about getting the future "right," nor about serving as tools for probabilistic prediction.

First- and Second-Generation Scenarios

Pierre Wack learned that initial scenarios rarely had an impact on managers' mental maps because they did not provide a basis on which managers could exercise their judgment (Wack, 1985). When he first began using scenarios in Shell, he repeatedly had a response of "so what" from managers after they would participate in one of his scenario presentations. "What, in time, we came to learn

was that these first-generation scenarios are always learning scenarios; their purpose is not action, but to gain understanding and insight" (Wack, 1985, p. 144). Pierre therefore also called these first-generation scenarios "learning scenarios." The solution was eventually found in a second round of scenario development. Second-generation scenarios became the "decision scenarios." Pierre's insights developed when he realized that to affect the managers' microcosms, he needed "to make the scenarios relevant to the deepest concerns of the decision-maker in the circumstances he was facing" (Wack, 1985, p. 146), and that to accomplish this he needed to understand the decision-makers and tailor-fit the scenarios to challenge the mental models of the managers who will use them.

> Decision-scenarios explore for facts out there, but they aim at perceptions inside the head of critical decision-makers. Their purpose is to gather and transform information of potential strategic significance into fresh perceptions which then lead to strategic insights that were previously beyond the mind's reach—those that would not even have been considered. (Wack, 1985, p. 149)

What Pierre never did was document his detailed process for moving from first- to second-generation scenarios. We can interpret from his published work, that he possessed an amazing sense of intuition, and those who worked with him say he was a natural fit for the position he held. Still, one of the greatest challenges in scenario planning is making the scenarios strike a chord among managers by providing a framework within which they can exercise their judgment. Much of this can be accomplished with initial interviews in the scenario development process, but Pierre's approach was like the man himself—somewhat mysterious, and certainly unique.

Memory of the Future

At the heart of scenario planning is a notion that has only recently gained scientific support. Cutting edge neurological research (LeDoux, 2000; Schwartz, Stapp, & Beauregard, 2005) suggests that the human brain cannot tell the difference between what it experiences through the known five senses and what it remembers. In a recent research study (Schwartz et al., 2005), scientists monitored neurological activity in subjects and found the same activities in exactly the same areas of the brain when subjects were *seeing* and when they were *remembering*. This is worth stating again: "The human brain cannot tell the difference between what it sees and what it remembers."

This finding is significant in the context of scenario planning because it blurs the lines between reflection and action—between thinking and doing. More specifically, this neurological research suggests that scenario planning is a means for creating a memory that can serve as actual experience. While this delves a bit into explaining how scenario planning works, and is not the focus of this article, memory of the future is a powerful concept that emphasizes the importance of helping individuals learn to *see* things differently.

Proper scenario planning creates memories of the future (Ingvar, 1985). These however, are memories of things that have not actually occurred. Scenario planning helps participants to make sense of their experience, linking the past to the present and future, creating alternative future end-states (Burt et al., 2006). The extent to which these future states create memories could be largely dependent on the extent to which each participant is engaged in the project—often a function of facilitation, relevance and learning. There are many aspects of effective scenario planning that are currently up for debate (Chermack, 2002; Chermack et al., 2006, 2007; Harries, 2003) and the research opportunities are wide open.

Scenario Planning—Delving Deeper

Scenario planning has been defined as a "process of positing several informed, plausible and imagined future environments in which decisions about the future may be played out for the purpose of changing current thinking, improving decision-making, enhancing human and organizational learning, and improving performance" (Chermack & Lynham, 2002, p. 376). Scenarios are used to create a form of preparedness in organizations. Ashby (1963), one of the early cybernetics pioneers, called this "requisite variety." In our context, this means that if an organization is to survive, it must work toward having at least as many responses to potential environmental dangers as the number of dangers that could possibly be posed to it.

Learning from Failure

Scenarios are commonly used to anticipate and avoid crisis situations (Godet, 2001; Schwartz, 1991). The events of September 11, 2001 and of Hurricane Katrina present a useful way of introducing some of the obstacles and issues related to scenario planning. Many are unaware that scenarios describing the events of Hurricane Katrina and September 11 existed for some time before they occurred (D'arcy, O'Hanlong, Orszag, Shapiro, & Steinberg, 2006). The fact that parts of New Orleans were below sea level was not shocking to anyone and the fear of hurricane descending on the city had long been building. The events of September 11 were also anticipated (Associated Press, August 2002, http://www.thememoryhole.org/911/cia-simulation.htm#ap). Friedman (2004) wrote: "9-11 was not so much a failure of intelligence as a failure of imagination" (p. 16). Imagination did not fail; belief did. Planners had scenarios describing attacks on the World Trade Center via hijacked airplanes for some time prior to their actually taking place.

The problem inherent in getting participants to realistically entertain the events of a set of scenarios is not new to those who work with scenarios. Consider this story from de Geus (1992) (told to him by Pierre Wack):

> In this story, the listener is invited to assume that a person with absolute powers to predict the future is visiting the Mayor of Rotterdam in 1920. The visitor tells the Mayor in vivid detail what is going to happen to his town and its German hinterland over the next 25 years (the period covered by a scenario). It is thus, during an otherwise perfectly normal working day in 1920, that the Mayor hears about the advent of the Republic of Weimar, about hyper-inflation, the crash of the stock exchange in 1929 followed by the Great Depression, the rise of Nazism in Germany with it (for Rotterdam) damaging economic policies of autarchy, the outbreak of the World War II with the carpet bombing of his town's whole city center and, finally, the systematic destruction of the town's port installations during the calamitous winter of 1945. The question is: what does the reader think that the Mayor is going to do with this information which reaches him in 1920, amidst all the other opinions and facts which he hears in the course of executing his complicated task of running one of the world's biggest ports? The near-unanimous reply which I receive to this rhetorical question is: nothing—even if our Mayor would give this prediction a higher degree of credibility than much of the other information reaching him, he would neither have the courage nor the powers of persuasion necessary to take the far reaching decisions required by this prediction. (p. 2)

This story describes the kind of thinking that can lead to events like September 11 and Hurricane Katrina to name just two. Other examples include Al Gore's recent film about global warming, *An Inconvenient Truth* (Bender & Guggenheim, 2006). His film tells the same story: the Snows of Kilimanjaro are disappearing rapidly, the average global temperature is now 6 degrees higher than it was in 1963 when measurements were first taken, and automobile pollution may have been curbed in the 1970s with the introduction of the fully electric car, except that (according to some sources) it and its designs were purchased and destroyed by General Motors (Electric Auto Association, 2006).

This story, retold a multitude of different ways, comes down to a key problem of urging people to act on the information they have. The question becomes "how can people change what they may be doing today so that they may have a better tomorrow?" The crux of the issue becomes not how well scenarios may be constructed, but, how and if people can *learn* from considering the implications so that they may act differently. As Pierre Wack was so fond of saying—how can people learn to *see* the world differently? A fundamental lack of willingness to entertain the scenarios poses a serious challenge to those who work in the field.

Issues and Opportunities in Scenario Planning

This issue of *Advances* will position scenario planning as HRD's strategic learning tool. This issue will further advocate that HRD researchers conduct and document rigorous studies that provide insights about the outcomes of scenario planning. In addition, we urge HRD practitioners to provide insights on how to implement scenario planning exercises as ongoing organizational learning projects. A clear challenge right from the start is in the fundamental lack of willingness to entertain scenarios and to act on the insights they may provoke. Each article in this issue will offer further challenges and opportunities for furthering the scenario planning research, theory and practice.

Preview and Introduction to This Issue of Advances

The following sections provide a brief description of each of the articles in this issue of *Advances in Developing Human Resources*.

Article 2

The second article in this issue of *Advances* provides an examination of the ontological and epistemological basis for using and evaluating scenarios and scenario planning. Walton takes this opportunity to explore these philosophical foundations of scenario planning and explores the possibilities of evaluating scenario planning from several different frames.

Article 3

Keough and Shanahan present and describe several scenario planning models. Conclusions and opportunities for solidifying best practices in terms of a sound approach to scenario planning are offered as well as the basis of a unifying model for moving forward.

Article 4

In the fourth article, Korte considers scenario planning among multiple levels of the organization. Dealing with issues of process and product at each level, this article outlines how scenario planning affects these levels differently. Clear conclusions for practice are also provided.

Article 5

Bradfield distills a list of common barriers to learning in scenario planning. Using a case study of a recent research project, these barriers are discussed in the context of an field-based scenario planning effort, and strategies for overcoming them are suggested.

Article 6

In Article 6, expertise from more than 30 years of practicing scenario planning in the method of Pierre Wack is provided as a set of "practitioner handrails." Key advantages and embedded knowledge from the HRD discipline are clarified and discussed.

Article 7

McLean and Egan provide a comprehensive discussion of the use of organization development tools throughout the scenario planning process. Key contributions of each are discussed and implications for practitioners are drawn.

Article 8

This article explores the use of scenario planning as a leadership development activity. McWhorter, Lynham, and Porter blend the scenario planning literature with the leadership development literature and also interview experts in each area to solidify an analysis of these two phenomena combined. Practical considerations are provided and recommendations for further research are clarified.

Article 9

The final article in this issue provides a summary of the key concepts that pervade this issue of *Advances.* In addition, the critical research problems are presented for those wishing to contribute to the small, but growing body of research and theory that are beginning to present the outcomes and effects of scenario planning.

Conclusion

This article (and this issue of *Advances*) advocates for HRD researchers and practitioners to take the lead in terms of scenario planning research and practice. This issue of *Advances* features articles from both researchers and practitioners and provides both intriguing research problems and practical issues that need to be resolved. Authors identify a range of issues, some extremely practical and some quite abstract that require the attention of those interested in seeing the development of scenario planning as a strategic organizational tool with a track record of results. There is much work to be done before the process of scenario planning can be more fully understood and this effort will require a partnership of professionals in the field and those reflecting in action. Under such a partnership, leading scenario planning processes within organizations can be positioned as the profession's primary strategic learning tool and a deep understanding of the scenario planning phenomenon would come from a concurrent program of university led research.

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