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An exploration of teaching methods used to develop leaders

Leadership educators' perceptions

Nathan S. Hartman
Department of Management and Quantitative Methods, Illinois State University, Normal, Illinois, USA, and
Scott J. Allen and Rosanna F. Miguel
Department of Management, Marketing, and Logistics, John Carroll University, University Heights, Ohio, USA

Abstract

Purpose – The purpose of this paper is to explore how educators can benefit from data on teaching methods or sources of learning used for the leader development of undergraduate students. To advance the field, the authors contend that programs for leader development need to clearly identify what area of development is being improved (e.g. conceptual understanding, personal growth, skill building, feedback), intentionally build connections toward those objectives for development, and incorporate experience within the structure of undergraduate education to facilitate better outcomes.
Design/methodology/approach – Ratings on the teaching methods used by participants with experience facilitating leader development activities for undergraduate students were solicited in an online survey. Each participant ($n = 66$) responded to questions about 25 sources of learning for leader development. Questions asked the degree to which each source of learning provided the learning outcomes of conceptual understanding, feedback, skill building, and/or personal growth to undergraduate students.
Findings – Participants perceived small group discussion, and film/television clips to promote conceptual understanding, while internships and 360-degree feedback did so to a lesser degree. Sources of learning perceived to facilitate skill building were group projects, and giving presentations. Conversely, completing case studies and listening to lectures were rated as unlikely to foster personal growth.
Originality/value – The results can help educators make a more informed decision about the adoption of teaching methods for leader development. Hopefully, this practice will create standardization in undergraduate leader development that researchers have asked for and serve as a platform for recommending timetables and sources of learning that better define the what and how of leader development. Likewise, these findings benefit industry, because strong parallels to both the content and techniques used in industry and by universities exist.

Keywords Leadership education, Curriculum design, Leader development, Sources of learning, Teaching methods

Paper type Viewpoint

Introduction

Leadership education is an interdisciplinary field of study and practice where different students' experiences are often as varied as the approaches researchers use in the scholarship of leadership education (e.g. Doh, 2003; Parks, 2005). Leader development is a facet of leadership education and is defined as "a multi-level process that facilitates the continual and long-term growth of the knowledge and skills needed to achieve individual, group, and/or organizational objectives" (Allen *et al.*, 2014, p. 28). In the university setting, it can be thought of as transforming students into leaders (Klimoski and Amos, 2012). The lack of empirically validated models of leadership development (Hannah and Avolio, 2010; Day *et al.*, 2009) and/or management development (Dragoni *et al.*, 2009) is well documented, which corresponds to the difficulty in determining a

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validated model for use in developing leaders through undergraduate education. In addition, Klimoski and Amos (2012), noted educators' approach in the classroom in the area of leader development is often based on what the educator believes to be valid, rather than evidence-based decision making. Yet the resources devoted to leader development continues to increase. For example, organizations' expenditures dedicated to leader development has continued to increase (e.g. 14 percent increase by US organizations in 2013 (Schramm, 2014)) and total spending by organizations of all sizes across the USA and Europe has been estimated to be in the billions of dollars each year (Friga *et al.*, 2003; Hannah and Avolio, 2010; Mabey, 2004; Mabey and Finch-Lees, 2008; O'Leonard, 2010). All without the clear indication that these development dollars result in a return on investment (Avolio *et al.*, 2010) and truly prepare men and women to navigate the inherent complexity faced by the modern day leader.

In spite of the limited clarity on the effectiveness of approaches used in leader development the curriculum used to develop leadership in universities has dramatically expanded as well. Business schools, many of which state an expressed purpose of developing leaders (DeRue *et al.*, 2011), are challenged to design curriculum, choose relevant topics, and show a return on student development similar to the corporate sector. Many researchers have questioned the effectiveness of current curricular approaches and their relative impact on the actionability of current research (Pearce and Huang, 2012; Martin, 2012). Likewise, reviews are mixed on how current models prepare students for the business world (Mintzberg, 2004; Wren *et al.*, 2007) and on the content relevancy of business courses (Benjamin and O'Reilly, 2011; Mintzberg, 2004; Muff, 2012).

Despite the popularity of leader development programs across the globe, published research and education trends are largely representative of what is happening in the USA and within this domain there are still a number of unknowns requiring further investigation (Riggio, 2008). This reality may stem from the fact that educators are trying to develop something that itself has not yet clearly been defined (Sowcik and Allen, 2013). Or perhaps our lack of knowledge stems from our lack of longitudinal research, which stalls our understanding of the developmental process over the lifespan (Riggio, 2008). Unlike many other domains in which individuals are challenged to learn a skill or ability based on a structured and well-planned course of study (e.g. culinary arts, accounting, negotiation, clinical psychology) there is little agreement on even the basic fundamentals of leader development. While a challenge on one hand, this is an opportunity for those interested in better understanding the process of developing students into leaders according to evidence-based education (Klimoski and Amos, 2012).

Underdeveloped definitions and the numerous theoretical models of leadership cause confusion in the application of "what" should be developed in leaders. Klimoski and Amos (2012) described it as an "abundance" that can lead to disagreement about decisions on what to do and leaving educators with a challenging decision-making process when coordinating a leader development curriculum. Beyond leadership theories, agreement on the meta-competencies that are needed to lead effectively is absent as well (Lord and Hall, 2005). Interestingly, this is not the case in other professions. For instance, in the profession of accounting, there are clear standardized themes in the required coursework across major universities. Yet without a guiding structure we cannot find this standardization in the teaching of leadership. Clearly, leader development is an important endeavor for educators hoping to transition undergraduates into businesses successfully (Moulton, 2004; Newhall, 2012), but to date, results have been lackluster as the actual quality of leadership in organizations is frequently considered to be poor (Newhall, 2012).

The purpose of this study was to provide evidence-based recommendations that educators can use to choose appropriate sources of learning (also known as instructional strategies or teaching methods) for leader development of undergraduate students (Allen and Hartman, 2009). These recommendations provide structure and consistency to the process of educating students based primarily on the work of Conger (1992, 2013). Similar to the work of Beeson (1998) who developed a checklist to assist organizations in succession planning, we strive to benefit undergraduate leader development by guiding academic practitioners' identification of the best sources of learning for undergraduate leader development. The results of this study make useful recommendations available for student development and subsequent research. We begin by reviewing two fundamental questions that have plagued leadership education – what do we develop and how do we develop it? Next, we present our study, including the methodology and results. We conclude with a discussion of our research and examine limitations of the research.

"What" should be taught?

It is our belief that little direction (or even schools of thought) to help answer the question of "what is taught" exists. In fact, no clear template or starting point like other areas of practice such as medicine or law can be found in the literature (Riggio, 2008). Ask ten theorists the starting point for leader development and one will likely get ten different answers. Inconsistency of this type is problematic because a template for appropriately scaffolding information does not exist. What skills does one need to learn prior to higher order or more complex adaptive competencies (Day *et al.*, 2009)? After all, clear learning goals and basic-level skills are the building blocks of development (Ericsson, 1996). One could argue that competencies serve this purpose, but how often are they introduced in a hierarchical fashion? A focus on identifying meta-level competencies or skill domains (e.g. Hogan and Warrenfeltz, 2003; Lord and Hall, 2005) may better serve our objective of developing leader expertise. For instance, a focus on the meta-competency of meta-cognition may lead to the mastery of sub-components such as self-awareness, cultural competence, composure, etc.

At the undergraduate level, leader education and development can be provided as its own major or minor, integrated within a major (e.g. management), and/or offered in co-curricular venues by nonacademic divisions of a university (e.g. offices of student affairs). In reality, leadership education is often a scattered hodge-podge of topics. Educators design curriculum by first identifying a textbook for the purpose of teaching about leadership theory accompanied with a unique assignment for the development of leadership. On a broad scale, Baldwin *et al.* (2011) and the articles identified in our study highlight this point. For instance, under the umbrella of "leader development," globalization, or cultural awareness (e.g. Alon and Higgins, 2005) was highlighted as a particularly relevant growth area not well addressed in current leader education, but some encouraged improvement through coverage of emerging markets like Africa (April and April, 2007), cultural leadership in general (Crossman, 2010), and globally fit leaders (Smith and Rayment, 2009). More recently, Jolly *et al.* (2011) highlighted the potential for native peoples to provide a broader scope for how leadership could be taught. Bilimoria (2000) asked educators to accept heightened awareness about the need for global social changes as an opportunity for improving education, by developing leaders with a focus on the betterment of the human condition. The above topics have great value, but their inclusion under the banner of "leadership" underscores our point that confusion exists in undergraduate education on what should be taught. In fact, we

struggled to locate a resource other than the Council for the Advancement of Standards in Higher Education's (2006) Student Leadership Programs: CAS Standards and Guidelines that clearly identifies what should be taught. Bass' (2008) Handbook of Leadership is also an exhaustive review of what could be included as relevant topics for coverage. However, other than the content of a textbook (e.g. Yukl, 2010; Northouse, 2007), there is no clear consensus on where leader development should begin (or end). In addition to textbooks, one could turn to specific theories such as, transformational leadership, LMX, or situational leadership, but each of these theories and the use of textbooks as a means to convey contemporary research could be argued to have limitations and omissions (Stambaugh and Quinn Trank, 2010).

One source that clarifies the question of "what we teach" to intentionally enhance a leader's development is the work of Conger. In his book *Learning to Lead*, Conger (1992) outlined four categories of leadership learning. Based on his research, Conger found that leader development programs (or aspects of programs) fell into the following categories: personal growth, conceptual understanding, feedback, and skill building. Personal growth programs are "based, generally, on the assumption that leaders are individuals who are deeply in touch with their personal dreams and talents and who will act to fulfill them" (Conger, 1992, pp. 45-46). Conceptual understanding primarily focusses on an individual's mastery of theory, concepts, and a cognitive understanding of leadership. Feedback experiences are used in an effort to help individuals increase self-awareness and determine areas for improvement. Skill-building programs are designed to enhance an individual's ability to perform various activities. According to Conger (1992, p. 176), skill building "demands that leadership abilities be broken down into actual mechanical processes that you and I can perform." Today, Conger (2013) builds each of these four elements into a single learning intervention which includes:

> (a) a cognitive component (usually a conceptual framework that is further illustrated through videos or case studies and lectures), (b) skill-building experiences (hands-on experiences where participants practice a specific skill repeatedly using an explicit application methodology), (c) a feedback element (the sources vary from peer feedback to 360-degree feedback around either the leadership framework or the skill being built), and (d) a personal growth dimension (a reflective component examining the participant's motivations, aspirations, passions, and/or values) (p. 78).

We would assert that Conger's categories could also be considered ultimate objectives for what should occur in a leader development program. By doing so, a curriculum coordinator will build a framework for development that nicely balances growth in the cognitive, affective, and behavioral domains.

"How" should we develop leaders?

While the "what" of leadership development is still unresolved, we also consider the "how" an important question for exploration. Considering the vast number of leadership articles and number of courses dedicated to the topic, it is odd that the question of "how" to develop leaders, even at a rudimentary level of sophistication, could actually be an unresolved issue. Given the amount of research dedicated to leadership and leader development, it should be easy (instead of surprisingly difficult) to identify appropriate sources of learning to meet curricular objectives. Sources of learning are how leadership is developed or "pedagogical techniques that can be used to help program architects decide if leadership development should occur inside the classroom, in organizations, or in any number of other combinations based on programmatic objectives" (Allen and Hartman, 2009, p. 8). Examples of some of the

more commonly used sources of learning include: simulations, lecture, action learning, problem-based learning, case studies, 360-assessments, service learning, historical tours, and group projects (see Allen and Hartman, 2009).

Once again, Conger's (1992) four categories provide a guiding framework for this exploration. For instance, if conceptual understanding is a primary objective of what is to be taught we would posit that lecture, small group discussion, online learning and other more "passive" and "instructor focussed" approaches would be chosen as appropriate sources for how learning takes place. By default, the dominant teaching paradigm (in higher education at least) is to review historical theories (e.g. path goal, contingency theory) that may provide little developmental value when taught in a lecture only setting (Bennis and O'Toole, 2005; Pfeffer and Fong, 2002). Perhaps learning in this manner has been viewed useful at preparing students for future professional experiences, because conceptual understanding has primarily been positioned as the foundation through which students could draw upon to enhance future developmental experiences. For instance, students without prior exposure to leadership theory/research would be less likely to take advantage of developmental opportunities since they would not have an effective foundation from which to draw. Although this thinking may represent one perspective, we suggest that the students' development is limited when only one of Conger's four categories (in this case conceptual understanding) is prioritized. Development would also be ineffective if what was intended to be developed was (e.g. skill building) matched with a source of learning inefficient (e.g. lecture) at actually develop that area of leadership.

Similar to Kolb's (1984) experiential learning model, a learning experience is much more powerful when supplementary dimensions are added to the design (e.g. behavioral, affective). However, articles published on leader development in the leadership and management education literatures present a wide span of how this is done with approaches ranging from a traditional lecture to more non-traditional experiential or reflective developmental techniques. Of course, these may include all four of Conger's categories, but most do not explicitly suggest this to be the case. For instance, Kern (2000) and Shannon *et al.* (2010) found manufacturing simulations to be particularly effective for student development. Likewise, the Battle at Gettysburg (McCarthy, 2001) and the 1996 Everest Disaster (Kayes, 2002) simulations demonstrate the complexity of leadership by relying on historical events. In a similar vein, Doherty (1999) recommended using one's class as an opportunity to teach the impact of organizational design, and Mello (2003) asked students to work in the role of leadership researcher to profile leaders and use the profile to create a workable theory of leadership. In addition, Sronce and Arendt (2009) identified how experiential exercises promoted skill building by giving students observation points for the leader and follower relationship. Likewise, several authors suggested the use of films or film making (Alvarez *et al.*, 2005; Comer, 2001; Huczynski and Buchanan, 2004; Bumpus, 2005), but others suggested plays and acting (Mocler, 2002), jazz music (Lengnick-Hall and Lengnick-Hall, 1999), and Aikido (Clawson and Doner, 1996) as salient approaches for how undergraduate educators are developing leaders. Another intervention for developing leaders in the classroom that has helped students identify with specific leaders, events, or complex situations was the case method. While this method has been widely used in MBA courses, several authors suggested its value transcends to the leader development of undergraduate students (O'Connell *et al.*, 2004; Brownell and Jameson, 2004).

There are now nearly 1,000 recognized leadership development programs in institutions of higher education and little standardization exists within these programs on how to

develop students into leaders as each uses a variety of different leader development techniques (Riggio *et al.*, 2003). Examples of curricular and co-curricular undergraduate leader development fill the literature (Day, 2000; Eich, 2008; Rost and Barker, 2000). While the above-mentioned activities may prove to be valuable learning experiences and in fact develop leaders, the larger question is "which sources of learning best facilitate learning and/or development given the curriculum coordinator's objectives?" Greater understanding here can aid in the adoption of more standardized practices, which could allow future leader development research to gain the needed focus on outcomes and an accurate/generalizable evaluation of leader development provided to undergraduates (Riggio *et al.*, 2003).

Research question

Based on our review of the literature, we designed a study that assumed Conger's four categories represented "what" is learned in leader development to understand more about "how" to better apply sources of learning drawn from Conger's four categories in undergraduate leader development. The central questions asked were: what sources of learning are perceived to align best with each of Conger's four approaches to learning (skill building, conceptual understanding, personal growth, and feedback). In addition, which sources of learning are deemed cost effective, and experiential in nature? The perceptions of experienced leadership educators provide an overall recommendation on these sources of learning. In this study, we relied on participants' perceptions of sources of learning, because pragmatically this population's experiences affords them the ability to judge cost effectiveness and deem some sources of learning more "experiential" than others. Cost is a practical concern that as academic practitioners ourselves, we have identified as a basic issue influencing many decisions made by undergraduate educators on how they will teach students. As a result, it needs to be considered as a contributing factor in the selection of a source of learning in the future of undergraduate leader development.

Method

Leadership educators and curriculum coordinators for undergraduate coursework were provided a study description and invited to participate through a posting on e-mail list serves for the Association of Leadership Educators, International Leadership Association, and National Clearinghouse for Leadership Programs. These organizations' membership includes faculty teaching leadership in higher education, leadership consultants and coaches, student affairs professionals, and leadership training officers. Of the 130 participants at different US universities and colleges that began the survey, 66 individuals had the background that matched this study's criteria and fully completed the survey. All participants had experience teaching and/or designing undergraduate leadership courses or programs. Specifically, when asked to categorize all of their experience, 45 had taught a leadership class to undergraduate students, 46 had facilitated leadership programming for undergraduate students, 34 conducted leadership development activities through the student activities office or through a student organization for undergraduate students, and 26 had conducted research on leadership or leader development (12 did not report their specific area of leadership research experience). In addition, participants had an average age of approximately 35 years and the majority who reported sex were females (40 percent; 38.3 percent males; 21.7 percent did not report) and whites (71.7 percent, 3.3 percent

were Hispanic, 25.0 percent reported as other or did not report) that had attained a master's or PhD degree (78.4 percent; 1.6 percent a bachelor's; 20.0 percent did not report).

Each participant responded to questions about 25 sources of learning (see Table I) for leader development (Allen and Hartman, 2009) by rating the degree to which each participant perceived each source of learning to provide the learning outcomes of

360-degree feedback	Participants receive feedback from supervisors/advisors, direct reports, peers, and others in their sphere of influence
Assessment centers	Participants are formally evaluated by trained observers on their demonstration of leadership competences in a series of activities
Assessments and instruments	Participants complete questionnaires designed to enhance self-awareness in a variety of areas (e.g. learning style, personality type, leadership style)
Case studies	Participants review written or oral stories, or vignettes that highlight a case of effective or ineffective leadership
Degree programs	Participants engage in formal education programs (e.g. certificate, minor, major, or master's level) bound by a prescribed curriculum
Film and TV clips	Participants learn about leadership theory through film or television clips
Group presentations	Participants work on a prescribed presentation in a small group
Group project	Participants work on a prescribed project in a small group
Historical tour or reenactment	Participants attend a tour or reenactment of historical significance (e.g. Gettysburg or Normandy)
Icebreakers	Participants engage in a series of relationship-building activities
Internships	Participants learn about leadership and organizational life through work experience
Journal reflections	Participants develop written reflections on experiences
Lecture	Participants attend a prepared discussion on some aspect of leadership; often given by an expert
Mentor and developmental relationships	Participants learn from a more experienced individual who can give guidance, share experience, and foster growth
Observation of a leader	Participants observe an individual leading others effectively or ineffectively
Panel of experts	Participants listen to or interact with a panel of experts who share their experience as it relates to the topic of leadership
Personal vision statement	Participants identify a desired future state at the personal level
Role-playing activities	Participants engage in activities designed to help them practice behaviors or skills
Service learning	Participants meet a need identified in their community and learn by connecting their experience with a structured learning component
Simulation or game	Participants work to solve simulated organizational problems or issues and reflect on the process, results, and learning
Skits and vignettes	Participants portray characters who do or do not embody a prescribed set of behaviors (e.g. conflict management, leadership)
Small group discussions	Participants take part in small group discussions on the topic of leadership or some aspect of group dynamics
Story or storytelling	Participants listen to a story highlighting some aspect of leadership; often given by an individual with a novel experience
Student organizations	Participants engage in student organizations that foster leadership opportunities
Video-taped feedback	Participants have the opportunity to see themselves display behaviors

Source: Adapted from Allen and Hartman (2009, pp. 9-10)

Table I.
Source of learning and description

conceptual understanding, feedback, skill building, and/or personal growth. For example, a question about lecture as a source of learning asked respondents to indicate if: "The primary purpose of this source of learning is to foster conceptual understanding," "The primary purpose of this source of learning is to foster skill building in participants," "The primary purpose of this source of learning is to foster personal growth," and "The primary purpose of this source of learning is to foster personal growth of participants." Participants responded using a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree).

Participants also rated whether they perceived each source of learning to be experiential and cost effective when used with undergraduates. We were interested in perceptions of the "experiential" element in this study due to the abundance of research that has established experience to be an integral component to leadership development (e.g. Dragoni *et al.*, 2009; Klimoski and Amos, 2012). Cost effectiveness was included for practical reasons, in that as educators ourselves, we recognize the limitations that cost can have on the decision-making process. In this paper, we asked raters to view experiential learning broadly. Each rater's perception about a source of learning judged the learner's opportunity for experiential learning, where if experiential, even at a minimal amount, some learning would be achieved through a personally determined experience and involvement. In contrast, the absence of experiential learning options reflects a more passive perception of the source of learning (e.g. lecture). This matches Kolb's (1984) experiential learning theory hypothesizing that learning can be more experiential as additional opportunities for concrete experiences, reflective observation, abstract conceptualization, and active experimentation are made available.

We also explored educator's perceptions of cost/benefit, because not all sources of learning are equal in terms of expense. Some are relatively inexpensive (e.g. assessments) while others can cost thousands of dollars (e.g. assessment centers). Likewise, some sources of learning for leader development had higher costs in terms of time (e.g. preparation, length of delivery) and/or investment. The time factor is relevant due to the significant time and number of experiences it takes to develop students into leaders effectively (Klimoski and Amos, 2012). Participants provided perceptions on the degree to which a source of learning's was cost effective, such that, an increased investment provided a higher return in terms of the amount of leader development attained.

Results

Descriptive statistics from the survey are provided in Tables II and III.

Results are organized according to the ratings received on each of the four dimensions of Conger's model. Participants determined that the following sources of learning promote conceptual understanding: leadership degree programs, small group discussion, and film/television clips. On the other hand, internships, journal reflections, icebreakers, lecture, and 360-degree feedback did so to a lesser degree. Receiving feedback on a video-taped performance, mentoring, assessment centers, and group projects were rated highly on the dimension of feedback, while job shadowing, listening to stories, icebreakers, listening to a panel of experts, journal reflections, film/TV clips, historical tours, case studies, and lectures were rated as less likely to provide leader development through feedback. Sources of learning designed to facilitate skill building were rated as more likely to occur through the programs such as: participation in group projects, giving presentations, service

Conceptual understanding Source of learning	Mean[a] (SD)	Feedback Source of learning	Mean[a] (SD)
Degree programs	4.37 (0.82)	Video-taped feedback	4.45 (0.67)
Small group discussion	4.09 (0.81)	Mentor	4.35 (0.69)
Film/TV clips	4.06 (0.73)	Assessment center	4.11 (0.81)
Group project	3.91 (0.94)	Group project	4.05 (0.80)
Historical tour or reenactment	3.90 (0.87)	Role playing	3.95 (1.03)
Service learning	3.86 (1.14)	Group presentation	3.86 (0.93)
Group presentation	3.85 (0.92)	Small group discussion	3.77 (0.89)
Story/storytelling	3.77 (0.94)	Degree programs	3.75 (0.93)
Role playing	3.73 (0.90)	Simulation/game	3.57 (1.04)
Simulation/game	3.70 (0.91)	Student activities	3.57 (0.93)
Panel of experts	3.63 (1.13)	Service learning	3.51 (1.27)
Self-assessments instruments	3.60 (1.03)	Personal vision statement	3.45 (1.06)
Skits vignettes	3.52 (1.03)	360-degree feedback	3.37 (0.63)
Mentor	3.33 (1.17)	Self-assessments instruments	3.26 (0.79)
Observation shadowing	3.30 (1.13)	Internships	3.20 (0.76)
Case studies	3.27 (0.67)	Observation shadowing	2.97 (1.04)
Student activities	3.24 (1.12)	Skits of vignettes	2.94 (1.21)
Personal vision statement	3.18 (1.22)	Story/storytelling	2.77 (1.22)
Assessment center	3.11 (1.11)	Icebreakers	2.75 (1.11)
Video-taped feedback	3.09 (1.07)	Panel of experts	2.73 (1.10)
Internships	2.80 (0.94)	Journal reflections	2.56 (1.16)
Journal reflections	2.59 (1.00)	Film/TV clips	2.50 (1.06)
Icebreakers	2.58 (1.13)	Historical tour or reenactment	2.23 (1.34)
Lecture	2.44 (0.54)	Case studies	2.02 (1.03)
360-degree feedback	2.17 (0.88)	Lecture	2.30 (1.11)

Note: [a]Participants responded using a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree)

Table II.
Ratings on conceptual understanding and feedback for each source of learning

learning, role playing, receiving feedback on a videotape performance, and leadership degree programs. Conversely, storytelling, 360-degree feedback, film/TV clips, listening to a panel of experts, cases studies, historical tours, journal reflections, and lectures were considered least likely to develop leadership skill. Finally, personal growth was most likely to be increased through service learning, personal vision statements, student activities, mentoring, completing psychological self-assessments, group projects, video-taped feedback, leadership degree programs, and group presentation, according to participant ratings. However, listening to a panel of experts, completing case studies, and lectures were rated as much less likely to foster personal growth in the context of leader development.

Sources of learning deemed highly experiential and cost effective are found in Table IV.

Highly experiential learning activities were service learning, role playing, simulations/games, student activities, and group projects, while film/TV Clips, 360-degree feedback, panel of experts, journal reflections, and lectures were reported to be the least experiential. Sources of learning considered to be cost effective were icebreakers, small group discussion, personal vision statement, group presentation, while 360-degree feedback, internships, assessment center, lecture, and historical tour/reenactment was least cost effective on the list. Finally, the sources of learning receiving a rating higher than four on both experiential and cost effectiveness were group project, ice breaker, role playing, and student activities.

Skill building Source of learning	Mean[a] (SD)	Personal growth Source of learning	Mean[a] (SD)
Student activities	4.41 (0.64)	Service learning	4.49 (0.78)
Group project	4.28 (0.79)	Personal vision statement	4.45 (0.64)
Group presentation	4.21 (0.83)	Student activities	4.38 (0.64)
Service learning	4.17 (0.99)	Mentor	4.33 (0.61)
Role playing	4.16 (0.87)	Self-assessment instruments	4.32 (0.66)
Video-taped feedback	4.14 (0.89)	Group project	4.28 (0.72)
Degree programs	4.00 (0.86)	Video-taped feedback	4.23 (0.53)
Simulation/game	3.81 (0.97)	Degree programs	4.06 (0.97)
Observation or shadowing	3.76 (1.01)	Group presentation	4.04 (0.79)
Small group discussion	3.66 (0.94)	Role playing	3.95 (1.05)
Mentor	3.63 (1.09)	Small group discussion	3.89 (0.92)
Assessment center	3.55 (0.98)	Assessment center	3.82 (0.87)
Personal vision statement	3.53 (1.18)	Icebreakers	3.70 (1.14)
Internships	3.49 (0.71)	Simulation/game	3.70 (0.88)
Skits/vignettes	3.39 (1.17)	Observation/shadowing	3.59 (0.87)
Self-assessments instruments	3.30 (0.96)	Story/storytelling	3.53 (1.17)
Icebreakers	3.06 (1.15)	Internships	3.44 (0.63)
Story/storytelling	2.77 (1.33)	Journal reflections	3.41 (0.61)
360-degree feedback	2.65 (0.87)	Skits/vignettes	3.32 (1.17)
Film/TV clips	2.65 (1.17)	360-degree feedback	3.26 (0.79)
Panel of experts	2.55 (1.08)	Historical tour/reenactment	3.13 (1.33)
Case studies	2.40 (1.01)	Film/TV clips	3.02 (1.16)
Historical tour or reenactment	2.37 (1.07)	Panel of experts	2.92 (1.12)
Journal reflections	2.12 (1.03)	Case studies	2.48 (1.03)
Lecture	2.50 (0.99)	Lecture	2.76 (1.53)

Note: [a]Participants responded using a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree)

Table III.
Ratings on skill building and personal growth for each source of learning

Discussion

We found the results of this study to be intriguing. Based on our analysis, teachers/scholars and curriculum coordinators developing undergraduate students into leaders need to keep three important ideas in mind. First, when we step back and clearly identify what is taught to accomplish leader development (e.g. conceptual understanding, personal growth, skill building, feedback) the results of this study help those interested in matching the source(s) of learning perceived to facilitate that dimension in undergraduates. For example, if a curriculum coordinator determines that a course should focus on personal growth of the undergraduate students, this study indicates that some sources of learning have a higher probability of actually developing personal growth than are others. Further, if it is accepted that personal growth is an important component to leader development, the results of this study demonstrate that solely relying on the lecture method will not be an effective approach for this selected area of development. Second, leader development is a process that occurs over an extended period of time ranging from one course to a series of undergraduate courses. Likewise, many of the highly experiential sources of learning have different levels of cost effectiveness (e.g. service learning, assessment centers) such that educators' judgment on their utility for use should also match the educator's resource constraints. Finally, those in control of an undergraduate leader development program/course will need to intentionally build connections between what is taught

Source of learning for leader development	Experiential[a]	Cost effective[a]
360-degree feedback	2.68	2.68
Assessment center	3.76	2.35
Case studies	3.32	3.29
Degree programs	3.29	2.79
Film/TV clips	2.98	4.19
Group presentation	3.90	4.40
Group project	4.33	4.47
Historical tour/reenactment	4.00	2.23
Icebreakers	4.26	4.53
Internships	3.50	2.59
Journal reflections	2.50	3.62
Lecture	1.15	2.28
Mentor	3.77	3.98
Observation/shadowing	3.65	3.81
Panel of experts	2.62	3.35
Personal vision statement	3.33	4.46
Role playing	4.46	4.25
Self-assessments/instruments	3.22	4.15
Service learning	4.70	3.41
Simulation/game	4.42	3.91
Skits/vignettes	3.90	4.00
Small group discussion	3.75	4.48
Story/storytelling	3.07	4.24
Student activities	4.35	4.05
Video-taped feedback	3.65	3.00

Note: [a]Participants responded using a five-point scale that ranged from 1 (strongly disagree) to 5 (strongly agree)

Table IV.
Ratings on sources of learning for leader development

and how this advances learners toward objectives for development. Doing so will maintain a sense of balance and prevent the overemphasis of one source of learning (e.g. lecture) or ultimate objective (e.g. conceptual understanding). Although many researchers have heralded experience as "the best" approach, this simply cannot be the case in all instances. Educators striving to accomplish a specific development objective(s) must consider these three points in association with experiences offered to undergraduate students as a vital selection component for delivery options they will use for leader development. Plus, purposeful selection of development goals and delivery practices can lay the foundation for creating a school of thought on how to advance undergraduate leader development, which would move the field further from teaching about leadership and more toward developing it.

Some sources of learning were perceived as capable of meeting several of Conger's leader development dimensions. Based on our results, service learning and student activities were both examples of sources of learning consistently identified as developing students in each of Conger's four categories. Student activities were rated highly on both experiential and cost effectiveness. These ratings suggest that incorporating student activities into a leader development course would cover all four of Conger's dimensions, while maintaining cost effectiveness and adding an experiential element of learning to the course. Similarly, service learning could meet all of Conger's development dimensions and simultaneously meet an educator's objective for providing what is perceived as an experiential source of learning, but was not viewed as cost effective as student activities.

These results can guide educators in making decisions about how to develop students into leaders across all four dimensions of learning while attending to the importance of cost considerations and the experiential nature of the source of learning.

Other sources of learning such as group presentations and video-taped feedback were rated highly on two on Conger's dimensions (e.g. personal growth/skill building). Of these sources of learning, group presentation was considered to be the most cost effective way to develop undergraduate students. Educators concerned with the cost effectiveness of development might have perceived benefits of development occurring through group presentations to outweigh the costs dedicated to video-taped feedback. This information allows educators to look at tradeoffs between the various sources of learning. In this example, educators can select the source of learning that captures the two dimensions of interest (skill building/personal growth), yet maximizes cost effectiveness.

Other sources of learning, for example 360-degree feedback, were considered relatively less effective at meeting all four of Conger's dimensions. Further, 360-degree feedback was rated low on experiential and cost effectiveness. This finding gives educators the information they need to determine if 360-degree feedback would serve as a viable source of learning for undergraduate leader development in their specific curriculum. It also poses an additional question – is there a way to identify situations where 360-degree feedback options are particularly developmental for undergraduates, for example.

Students and educators must put in the time

For students, experiential learning contributes to the time dedicated to intentional practice of actual leader behavior, which has been addressed in the literature as a critical component for leader development (e.g. Avolio, 1999, 2005; Avolio and Gibbons, 1989; Conger and Benjamin, 1999; Fulmer, 1997). The basic tenant is that a leader development process can be time intensive, but educators need to consider time's cost/benefit, such that, development will be viewed as a long-term endeavor appropriately. To this point we agree with Conger (1992) who suggests, "Most would agree that to seriously train individuals in the arts of leadership takes enormous time and resources – perhaps more than societies or organizations possess, and certainly more than they are willing to expend" (pp. 38-39).

Regardless of *what* we are teaching the *how* and for *how long* seems to be one pressing question when it comes to leader development. We suggest that developing leadership is not very different from developing expertise in other fields. However, to develop expertise "from scratch," one needs time (about ten years) of intense, deliberate practice (Day, 2010; Ericsson *et al.*, 1993). Leader development in the current management education paradigm is not given a great deal of time for deliberate practice – primarily because the vast majority of practice occurs through classroom instruction at the undergraduate level, and as a result, there is a lot of talking about leadership, but not a lot of doing leadership where deliberate practice really occurs (Allen and Middlebrooks, 2013). Thus, the questions of what and how to teach is just as important as the need to better understand the question of how long. Intentionally linking what needs to be taught with the source(s) of learning that best addresses the ultimate goal of learning a particular dimension of leadership (e.g. conceptual, feedback), will allow educators to make better use of the time available. However, it is also necessary to better understand what form of deliberate practice is required for leader development. To simply state that a certain number of hours of deliberate

practice is required, does not answer the question of what type of practice. For example, is service learning that involves working directly with a community partner a form of deliberate practice? Therefore, researchers still need to identify and define the criteria for deliberate practice in order to provide practical guidance for teachers/scholars.

Development with intentional connections

The results of this research provide a ranking/rating of various sources of learning (e.g. film, lecture, simulations) that can be used to design a course or series of courses. In general, some results in particular stood out for us. For instance, in our sample, there is a clear bias against lecture as a source of learning in terms of its inability to effectively develop undergraduate leadership on even one of Conger's dimensions. Interestingly, it was perceived to be a poor methodology for conveying conceptual understanding, experiential experiences, and ranked near the bottom in cost effectiveness. Perhaps this is a backlash because lectures have a diminishing return when over-used in academia. However, it highlights some of our concerns that educators' approaches in the classroom in the area of leader development is often based on what the educator believes to be valid, rather than evidence-based decision making. Lecture in and of itself is not a bad source of learning and perhaps the most efficient way to convey concepts and theories of leadership. Well-educated students should know this information and a choice to move away from lecture and conceptual understanding could limit our students in the same way its overuse will.

As we have discussed, a natural challenge of leadership education is a lack of clarity on just what one is hoping to "develop." Experiential learning lends itself to "practice" or skill building while a lecture by an expert lends itself to conceptual understanding. Those using undergraduate curriculum to develop leaders need clarity not only on what type of learning is appropriate but the level of expertise they are hoping to facilitate. Peter Vaill (in Allen and Kusy, 2011) stated "A final chronic problem with teaching and training about leadership is that there's doing it, and then there's talking about it. No amount of talking about it seems to result in people becoming better at doing it" (p. x). As Vaill suggests, there is a difference between knowing what should be done conceptually and intervening skillfully from a behavioral perspective (Meissen, 2010). Ultimately, we are trying to develop undergraduates who exhibit effective leadership knowledge and behavior (Baldwin *et al.*, 2011).

According to Kaiser *et al.* (2008), effective leadership, in part, is measured in terms of the leader's ability to maintain harmony within the team and the outcomes attained by her team. Again, the selection of learning interventions from Tables II-IV could be more informative for the curriculum designer looking for suitable and effective methods for reaching this objective. Phenomena such as the use of feedback to promote understanding, skill development, and personal growth could be targeted to several domains of collaborative problem solving and maintain relevance to leadership. Using evidence-based recommendations helps designers understand the benefits of different sources of learning for leader development.

Experience is not a Panacea

As we mentioned, there is a clear bias for experiential sources of learning in our results. As the designers of leadership curriculum, we know experience as a development approach has great potential (McCall, 2010) and we would suggest when done intentionally, a process that addresses each of Conger's four categories, strengthens the leader development process (Conger, 2013). As work experiences can be easily augmented with traditional

learning opportunities, it is equally possible to develop undergraduate students through experiential opportunities designed to augment the traditional learning process. Likewise, as developmental experiences at the undergraduate level are similar to "starting something from scratch" (McCall, 2010) this experience challenges individuals to develop their skills, grow on a personal level and receive feedback throughout the experience. However, to assume that this experience alone will facilitate learning may be a little presumptive. In fact, the planned learning needs to be built into the experience (Kolb, 1984). As Jackson and Lindsay (2010) suggest, there may be some conceptual understanding (formal learning) interventions on the front end (lessons for experience) so the individual has time to plan and think through what is to come. Likewise, a feedback system could be built so that the individual is in fact entering a system with this in place. Additionally, there is an opportunity to hire a coach to ensure that the feedback is appropriately debriefed, and help the individual build skills in areas such as team development, performance management, and so forth. Interestingly, work with the coach does not need to take an inordinate amount of time – curriculum designers simply need to get creative about how to use time effectively. For instance, Avolio (in Volckmann, 2011) discusses developmental interventions conducted with surgeons while they were scrubbing for surgery. It was the only time the surgeons had and given the circumstances, quick developmental interventions were designed. In sum, we need to be aware of our bias for experiential learning and ensure that it is designed in a way to capture the learning so participants develop a habit of reflection and the meta-monitoring abilities needed by leaders (Lord and Hall, 2005).

Limitations and future research

This paper is not without its limitations and in some sense, it struggles with the same challenges it highlights. The survey explores educator's perceptions and experiences concerning the various sources of learning, but does not measure how frequently the respondents use them and this would be a desirable area of exploration for future research. In addition, the way in which participants define some of the sources of learning may vary. Or their particular level of experience with the sources of learning may vary. For example, we pointed out 360-degree feedback and the low ratings this source of learning received. We do not know what frame of reference participants were using to make these ratings. Many different forms and types of 360-degree tools are available on the market. In addition, it is also possible to develop a customized tool, which would most likely increase the cost tremendously. Likewise, it would be particularly beneficial if various sources of learning in leader development could be mapped to a specific style of leadership (e.g. authentic leadership development, transformational leadership). However, this exercise was outside the scope of this work. Another interesting area for exploration would be to examine student perceptions and experiences concerning the various sources of learning. The student perspective is certainly important as they are the consumers of the learning (Allen and Hartman, 2009). To take that further, examining recent graduates' perceptions based on their experiences in the "real world" could be additionally insightful. The specific steps/behaviors that a practitioner and/or researcher can take from the findings in this study are interesting in their own right, but all they can do is provide "direction" and much collective effort is required to actually address the practical alignment of leadership programs with developmental goals. The willingness of faculty and/or the ability of universities to pursue this objective are at least one dilemma for implementation not addressed in this paper. Many faculty members might reach agreement on the what, but they could dislike being told that they must follow a specific how. Another limitation

is the lack of guidance on how to integrate co-curricular aspects of a university's leader development program with the leader development occurring within its degree programs. It is easy to see leader development as a topic, rather than a desirable outcome, creating a hurdle for introducing purposeful leader development into degree programs. Finally, Conger's four categories for leader development are not necessarily final or ideal. They represent current practice at the time and future theory developments should go further to describe what is happening.

Conclusion

Although the results did in fact help us better understand how to develop leaders, educators must use results such as these when they purposefully commit to a program for leader development. Determinations of what and how to teach the curriculum should be based on their development objectives and the probability of attaining them using a particular source of learning for leader development. The variety of development options can be used better to respond to those within universities wanting to develop better leaders. In the future, educators will increasingly be asked to make selections based on assessment and experience. Our results can help educators make a more informed decision about the adoption of teaching methods for leader development. Hopefully, this practice will create standardization in the development of undergraduates that researchers have asked for, which can give them a platform for recommending timetables and sources of learning that better define the what and how of leader development. Likewise, these findings benefit industry, because there are strong parallels to both the content and techniques used in industry and by universities. With these results and through further investigation better designed programs can appropriately use lectures, case studies, and role-playing exercises or lengthier experiences affording more time for intentional practice to improve leaders' skills.

References

Allen, S.J. and Hartman, N.S. (2009), "Sources of learning in student leadership development programming", *Journal of Leadership Studies*, Vol. 3 No. 3, pp. 6-16.

Allen, S.J. and Kusy, M. (2011), *The Little Book of Leadership Development: 50 Tips to Accelerate Leader Potential in Others*, AMACOM, New York, NY.

Allen, S.J. and Middlebrooks, T. (2013), "The challenge of educating leadership expertise", *Journal of Leadership Studies*, Vol. 6 No. 4, pp. 84-89.

Allen, S.J., Miguel, R. and Martin, B.A. (2014), "Know, see, plan, do: a model for curriculum design in leadership development", *SAM Advanced Management Journal*, Vol. 72 No. 2, pp. 26-38.

Alon, I. and Higgins, J.M. (2005), "Global leadership success through emotional and cultural intelligences", *Business Horizons*, Vol. 48 No. 6, pp. 501-512.

Alvarez, J.L., Miller, P., Levy, J. and Svnenova, S. (2005), "Journey to the self: using movie directors in the classroom", *Journal of Management Education*, Vol. 29 No. 3, pp. 793-815.

April, K.A. and April, A.R. (2007), "Growing leaders in emergent markets: leadership enhancement in the new South Africa", *Journal of Management Education*, Vol. 31 No. 2, pp. 214-244.

Avolio, B. (1999), *Full Leadership Development*, Sage, Thousand Oaks, CA.

Avolio, B. (2005), *Leadership Development in Balance*, Lawrence Erlbaum Associates, Mahwah, NJ.

Avolio, B. and Gibbons, T. (1989), "Developing transformational leaders: a life span approach", in Conger, J. and Kanungo, R. (Eds), *Charismatic Leadership: The Elusive Factor in Organizational Effectiveness*, Jossey-Bass, San Francisco, CA, pp. 276-308.

Avolio, B.J., Avey, J.B. and Quisenberry, D. (2010), "Estimating return on leadership development investment", *The Leadership Quarterly*, Vol. 21 No. 4, pp. 633-644.

Baldwin, T.T., Pierce, J.R., Joines, R.C. and Foarouk, S. (2011), "The elusiveness of applied management knowledge: a critical challenge for management educators", *Academy of Management Learning & Education*, Vol. 10 No. 4, pp. 583-605.

Bass, B.M. (2008), *The Bass Handbook of Leadership*, 4th ed., Free Press, New York, NY.

Beeson, J. (1998), "Succession planning: building the management corps", *Business Horizons*, Vol. 41 No. 5, pp. 61-66.

Benjamin, B. and O'Reilly, C.O. (2011), "Becoming a leader: early career challenges faced by MBA graduates", *Academy of Management Learning & Education*, Vol. 10 No. 3, pp. 452-472.

Bennis, W.G. and O'Toole, J. (2005), "How business schools lost their way", *Harvard Business Review*, Vol. 83 No. 5, pp. 96-104.

Bilimoria, D. (2000), "A new scholarship of teaching and learning: an agenda for management education scholarship", *Journal of Management Education*, Vol. 24 No. 6, pp. 704-707.

Brownell, J. and Jameson, D.A. (2004), "Problem-based learning in graduate management education: an integrative model and interdisciplinary application", *Journal of Management Education*, Vol. 25 No. 2, pp. 124-145.

Bumpus, M.A. (2005), "Using motion pictures to teach management", *Journal of Management Education*, Vol. 29 No. 6, pp. 792-815.

Clawson, J.G. and Doner, J. (1996), "Teaching leadership through aikido", *Journal of Management Education*, Vol. 20 No. 2, pp. 182-205.

Comer, D. (2001), "Not just a Mickey mouse exercise: using Disney's the lion king to teach leadership", *Journal of Management Education*, Vol. 25 No. 4, pp. 430-436.

Conger, J. (1992), *Learning to Lead: The Art of Transforming Managers into Leaders*, Jossey-Bass, San Francisco, CA.

Conger, J. (2013), "Mind the gaps: what limits the impact of leadership education", *Journal of Leadership Studies*, Vol. 6 No. 4, pp. 77-83.

Conger, J. and Benjamin, B. (1999), *Building Leaders: How Successful Companies Develop the Next Generation*, Jossey-Bass, San Francisco, CA.

Council for the Advancement of Standards in Higher Education (2006), *CAS Professional Standards for Higher Education*, 6th ed., Council for the Advancement of Standards in Higher Education, Washington, DC.

Crossman, J. (2010), "'Act them into a new way of thinking': multiple stakeholder perspectives on developing international and cultural leadership (ICL) through experiential learning", *International Journal of Management Education*, Vol. 9 No. 1, pp. 33-42.

Day, D.V. (2000), "Leadership development: a review in context", *Leadership Quarterly*, Vol. 11 No. 4, pp. 581-613.

Day, D.V. (2010), "The difficulties of learning from experience and the need for deliberate practice", *Industrial and Organizational Psychology: Perspectives on Science and Practice*, Vol. 3 No. 1, pp. 41-44.

Day, D.V., Harrison, M.M. and Halpin, S.M. (2009), *An Integrative Approach to Leader Development: Connecting Adult Development, Identity, and Expertise*, Routledge, New York, NY.

DeRue, S.D., Sitkin, S.B., Sim, B. and Podolny, J.M. (2011), "From the guest editors: teaching leadership – issues and insights", *Academy of Management Learning & Education*, Vol. 10 No. 3, pp. 369-372.

Doherty, E. (1999), "Creation of a learning organization laboratory in the classroom: expected and unexpected lessons", *Journal of Management Education*, Vol. 22 No. 5, pp. 604-617.

Doh, J. (2003), "Can leadership be taught? Perspectives from management educators", *Academy of Management Learning and Education*, Vol. 2 No. 1, pp. 54-67.

Dragoni, L., Tesluk, P.E., Russell, J.E.A. and Oh, I.S. (2009), "Understanding managerial development: integrating developmental assignments, learning orientation, and access to developmental opportunities in predicting managerial competencies", *Academy of Management Journal*, Vol. 52 No. 4, pp. 731-743.

Eich, D. (2008), "A grounded theory of high-quality leadership programs: perspectives from student leadership development programs in higher education", *Journal of Leadership and Organizational Studies*, Vol. 15 No. 2, pp. 176-187.

Ericsson, K.A. (1996), "The acquisition of expert performance: an introduction to some of the issues", in Ericsson, K.A. (Ed.), *The Road to Excellence: The Acquisition of Expert Performance in the Arts and Sciences, Sports, and Games*, Erlbaum, Mahwah, NJ, pp. 1-50.

Ericsson, K.A., Krampe, R.T. and Tesch-Römer, C. (1993), "The role of deliberate practice in the acquisition of expert performance", *Psychological Review*, Vol. 100 No. 3, pp. 363-406.

Friga, P.N., Bettis, R.A. and Sullivan, R.S. (2003), "Changes in graduate management education and new business school strategies for the 21st century", *Academy of Management Learning and Education*, Vol. 2 No. 3, pp. 233-249.

Fulmer, R.M. (1997), "The evolving paradigm of leadership development", *Organizational Dynamics*, Vol. 25 No. 4, pp. 59-72.

Hannah, S. and Avolio, B.J. (2010), "Ready or not: how do we accelerate the developmental readiness of leaders?", *Journal of Organizational Behavior*, Vol. 31 No. 8, pp. 1181-1187.

Hogan, R. and Warrenfeltz, R. (2003), "Educating the modern manager", *Academy of Management Learning & Education*, Vol. 2 No. 1, pp. 74-84.

Huczynski, A. and Buchanan, D. (2004), "Theory from fiction: a narrative process perspective on the pedagogical use of feature film", *Journal of Management Education*, Vol. 28 No. 6, pp. 707-726.

Jackson, R.J. and Lindsay, D.R. (2010), "Lessons for experience: why wait?", *Industrial and Organizational Psychology: Perspectives on Science and Practice*, Vol. 3 No. 1, pp. 48-51.

Jolly, F., Whiteman, G., Atkinson, M. and Radu, I. (2011), "Managing and educating outside: a cree hunter's perspective on management education", *Journal of Management Education*, Vol. 35 No. 1, pp. 27-50.

Kaiser, R.B., Hogan, R. and Craig, S.B. (2008), "Leadership and the fate of organizations", *American Psychologist*, Vol. 63 No. 2, pp. 96-110.

Kayes, D.C. (2002), "Dilemma at 29,000 feet: an exercise in ethical decision-making based on the 1996 Mt. Everest disaster", *Journal of Management Education*, Vol. 26 No. 3, pp. 307-321.

Kern, J.A. (2000), "Manufacturing power relations: an organizational simulation", *Journal of Management Education*, Vol. 24 No. 2, pp. 254-275.

Klimoski, R. and Amos, B. (2012), "Practicing evidence-based education in leadership development", *Academy of Management Learning & Education*, Vol. 11 No. 4, pp. 685-702.

Kolb, D.A. (1984), *Experiential Learning*, Prentice Hall, Englewood Cliffs, NJ.

Lengnick-Hall, M.L. and Lengnick-Hall, C.A. (1999), "Leadership jazz: an exercise in creativity", *Journal of Management Education*, Vol. 23 No. 1, pp. 65-70.

Lord, R.G. and Hall, R.J. (2005), "Identity, deep structure and the development of leadership skill", *The Leadership Quarterly*, Vol. 16 No. 4, pp. 591-615.

McCall, M.W. (2010), "Recasting leadership development", *Industrial and Organizational Psychology: Perspectives on Science and Practice*, Vol. 3 No. 1, pp. 3-19.

McCarthy, J.F. (2001), "Learning from the heat of battle: the Gettysburg staff ride", *Journal of Management Education*, Vol. 25 No. 5, pp. 495-515.

Mabey, C. (2004), "Management development in Europe: implications for research and practice", *Advances in Developing Human Resources*, Vol. 6 No. 4, pp. 504-513.

Mabey, C. and Finch-Lees, T. (2008), *Management and Leadership Development*, Sage, London.

Martin, R. (2012), "The price of actionability", *Academy of Management Learning & Education*, Vol. 11 No. 2, pp. 293-299.

Meissen, G. (2010), "Leadership lexicon", *The Journal of Kansas Civic Leadership Development*, Vol. 2 No. 1, pp. 78-81.

Mello, J.A. (2003), "Profiles in leadership: enhancing learning through model and theory building", *Journal of Management Education*, Vol. 27 No. 3, pp. 344-361.

Mintzberg, H. (2004), *Managers not MBAs: A Hard Look at the Soft Practice of Managing and Management Development*, Berrett-Kohler, San Francisco, CA.

Mockler, R.J. (2002), "Using the arts to acquire and enhance management skills", *Journal of Management Education*, Vol. 26 No. 5, pp. 574-585.

Moulton, H.W. (2004), "Leadership through executive education", *Business Horizons*, Vol. 47 No. 2, pp. 7-14.

Muff, K. (2012), "Are business schools doing their job?", *Journal of Management Development*, Vol. 31 No. 7, pp. 648-662.

Newhall, S. (2012), "Preparing our leaders for the future", *Strategic HR Review*, Vol. 11 No. 1, pp. 5-12.

Northouse, P.G. (2007), *Leadership: Theory and Practice*, 4th ed., Sage Publications, Thousand Oaks, CA.

O'Connell, D.J., McCarthy, J.F. and Hall, D.T. (2004), "Print, video, or the CEO: the impact of media in teaching leadership with the case method", *Journal of Management Education*, Vol. 28 No. 3, pp. 294-318.

O'Leonard, K. (2010), *The Corporate Learning Factbook: Statistics, Benchmarks, and Analysis of the US Corporate Training Market*, Bersin & Associates.

Parks, S.D. (2005), *Leadership Can be Taught*, Harvard Business School Press, Boston, MA.

Pearce, J.L. and Huang, L. (2012), "The decreasing value of our research to management education", *Academy of Management Learning and Education*, Vol. 11 No. 2, pp. 247-262.

Pfeffer, J. and Fong, C.T. (2002), "The end of business schools?", *Academy of Management Learning and Education*, Vol. 1 No. 1, pp. 78-95.

Riggio, R. (2008), "Leadership development: the current state and future expectations", *Consulting Psychology Journal: Practice and Research*, Vol. 60 No. 4, pp. 383-392.

Riggio, R.E., Ciulla, J. and Sorenson, G. (2003), "Leadership education at the undergraduate level: a liberal arts approach to leadership development", in Murphy, S.E. and Riggio, R.E. (Eds), *The Future of Leadership Development*, Lawrence Erlbaum, Mahwah, NJ, pp. 223-236.

Rost, J.C. and Barker, R.A. (2000), "Leadership education in colleges: toward a 21st century paradigm", *Journal of Leadership Studies*, Vol. 7 No. 1, pp. 3-12.

Schramm, J. (2014), "Finding tomorrow's leaders", *HR Magazine*, Vol. 59 No. 7, p. 64.

Shannon, P.W., Krumwiede, K.R. and Street, J.N. (2010), "Using simulation to explore lean manufacturing implementation strategies", *Journal of Management Education*, Vol. 34 No. 2, pp. 280-302.

Smith, J. and Rayment, J. (2009), "Developing school strategy: developing globally fit leaders", *International Journal of Management Education*, Vol. 7 No. 3, pp. 27-34.

Sowcik, M. and Allen, S.J. (2013), "Getting down to business: a look at leadership education in business schools", *Journal of Leadership Education*, Vol. 12 No. 3, pp. 57-75.

Sronce, R. and Arendt, L.A. (2009), "Demonstrating the interplay of leaders and followers", *Journal of Management Education*, Vol. 33 No. 6, pp. 699-724.

Stambaugh, J.E. and Quinn Trank, C. (2010), "Not so simple: integrating new research into textbooks", *Academy of Management Learning & Education*, Vol. 9 No. 4, pp. 663-681.

Volckmann, R. (2011), "Developing leaders: an interview with Bruce Avolio", *Integral Leadership Review*, Vol. 11 No. 3, available at: http://integralleadershipreview.com/2011/06/fresh-perspective-3/ (accessed June 6, 2011).

Wren, D.A., Halbesleben, J.R. and Buckley, M.R. (2007), "The theory-application balance in management pedagogy: a longitudinal update", *Academy of Management Learning & Education*, Vol. 6 No. 4, pp. 484-492.

Yukl, G. (2010), *Leadership in Organizations*, 7th ed., Prentice Hall, Upper Saddle River, NY.

Corresponding author
Dr Nathan S. Hartman can be contacted at: nathan.hartman@ilstu.edu