The Impact of Preferred Conflict Management Tactics on Performance Within a Virtual Leadership Simulation

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Abstract: The pace of technological advancements available to adult educators is progressing faster than the research examining the efficacy of these tools. This study helps address this challenge by examining a disruptive technology, namely a virtual leadership simulation, and factors that impact adult learner performance within a specific virtual leadership simulation.

Numerous researchers have found that leadership development education or training can make a difference (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001). Allio (2005) calls for educators to acknowledge that leadership programs can "teach about leading, but not how to lead" (p. 1075). He states, "the best leadership programs will focus on building skills" (p. 1076). He further suggests rhetoric (critical thinking, communications, and negotiation) as an important set of skills and calls for researchers to "design experiments that verify a causal (or statistically significant) relationship between educational and training initiatives and the development of leaders" (p. 1075). This study contributes to the field of leadership development and adult education by exploring the relationship between conflict management style and performance within a virtual leadership simulation. This study builds on the existing literature examining conflict-management tactics by examining the P.O.I.N.T.S. Power and Influence Tactics Scale (POINTS) (Yang, 1996) and the vLeader virtual leadership simulation software developed by SimuLearn, Inc. The purpose of this quantitative study was to explore learning in a computer-mediated virtual environment. The research question was: To what extent did conflict management tactics based on the POINTS instrument predict the adult learners' virtual leadership simulation scores?

Experiential or action learning has been noted as important to leadership development endeavors (Yukl, 2010). Experiential learning occurs when the learner actually does a task in order to learn it, either with or without prior instructions or direction (Hansman, 2001). "The aim of leadership developmental initiatives is long-term skill development. Accordingly, organizations should place greater emphasis on experiential learning so as to foster sustained behavioral and practice changes" (Hirst, Mann, Bain, Pirola-Merlo, & Richver, 2004, p. 324).

Another lens to contemporary leadership education is authentic learning. Authentic learning includes activities that directly relate to students and what they encounter in their everyday lives. In authentic learning environments, instructors coach and facilitate as students accomplish tasks related to their everyday lives. According to Woo, Herrington, Agostinho, & Reeves (2007), "technology appears to have great potential to support student performance of authentic tasks and their resultant learning" (p. 37). Indeed, the proliferation of technological advances and a trend toward instructional modes that combine a variety of approaches utilizing technology (or not) has resulted in a "blurring of the boundaries between traditional classifications of instructional approaches" (LeNoue, Hall, & Eighmy, 2011, p. 5).

Theoretical Framework/Literature Review

Leadership scholars have cited numerous reasons why leaders are important, from organizational effectiveness to national and global concerns (Bennis, 1989; Knox, 1994). The topic of leaders and

leadership has been studied extensively for the past century, yet little consensus exists in terms of exact definitions, or how to best approach effective leadership development (Allio, 2005). This study used Yukl's (2010) definition of leadership, summarizing many definitions by stating that leadership "involves a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization" (p. 3). While there are numerous theoretical approaches to studying leadership (trait, style, situational, transactional, transformational, etc.), Trait theory provides a quantifiable lens through which leadership development might be measured in the form of skills or competencies (Conger & Ready, 2004; Evers, Rush, & Berdrow, 1998; Lombardo & Eichinger, 2002).

Although no clear consensus exists as to the exact combination of competencies that equates to leadership effectiveness, many researchers agree that communication is a key leadership competency (Bambacas & Patrickson, 2009; Northouse, 2010). Within the broader category of communication competency, conflict management (intersecting problem-solving and interpersonal communication competencies) is a key competency utilized by leaders. Learning more about factors that impact conflict management tactics can lead to improved techniques for educators and improved competence for leaders.

In addition to the challenge of defining a common language of leadership and identifying key competencies, the issue of teaching or developing leadership has generated some healthy academic debate. Educators have argued about whether or not leadership can even be taught, and if it can be taught, the content and methods are critiqued and criticized more often than not. Over the past decade scholars have begun writing about how leadership can be developed in a measurable way and how leadership development programs can be successful if the focus remains on building skills (Allio, 2005; Cress et al., 2001; Itzhaky & York, 2003).

There are different approaches to leadership education and training: formal classroom, personal research, experience, action learning, networking, role modeling, mentoring, coaching, job assignments, 360-degree feedback, case studies, games, simulations, etc. (Day, 2001; Yukl, 2010). Institutions of higher education in particular need to offer a greater variety of instructional approaches that are effective for adult learners (Fadaei, 2010). This study focused on games and more specifically simulations as an effective approach to leadership training/education. Dempsey, Haynes, Lucassen, and Casey (2002) define a game as a "set of activities involving one or more players. It has goals, constraints, payoffs, and consequences. A game is rule-guided and artificial in some respects… a game involves some aspect of competition, even if that competition is with oneself." (p. 159)

Games are more complex than case studies, which simply require learners to make decisions after analyzing the case and its components. Simulations require learners to deal with the consequences of their decisions (Yukl, 2010). Within the field of training and leadership development "training simulation games are used to enhance decision making and/or communication skills of players in complex environments that can be competitive, cooperative, or coopetitive" (coopetition is "focused on limited cooperation of otherwise competitive parties)" (Yilmaz, Oren, & Aghaee, 2006, p. 340). One of the characteristics of simulations that makes them effective is that they cannot be skimmed or browsed, but "can only truly be understood through active trial-and-error engagement" (Aldrich, 2005, p. 177). Learners must truly engage in the simulation to understand it.

A "virtual environment" or "virtual reality" is defined for this study not as a specific technology, but rather from a communication research perspective, which focuses on human experience. According to Steuer (1992), the "key to defining virtual reality in terms of human experience rather than

technological hardware is the concept of presence. Presence can be thought of as the experience of one's physical environment" (p. 5). Steuer goes on to state that while presence "refers to the natural perception of an environment, telepresence "refers to the mediated perception of an environment (p. 6). In Steuer's conceptualization a virtual environment or reality is "a real or simulated environment in which a perceiver experiences telepresence" (p. 7). Defining virtual reality in this manner shifts the focus from the machine or technology involved to the individual and her/his perceptions, and thereby allows for variations across technologies.

Methodology

Quantitative methodology was chosen for this study because of the comparative aspect of exploring (a) conflict management tactics utilizing the P.O.I.N.T.S. Power and Influence Tactics Scale (POINTS instrument) and (b) leadership scores measured by the vLeader virtual leadership simulation. This methodology allowed the exploration of the relationships between independent and dependent variables represented in these two instruments (Fraenkel & Wallen, 2009). The idealized sample size was 194 participants and the final sample was n=301.

Conflict management styles were measured using an update of the P.O.I.N.T.S. Power and Influence Tactics Scale (POINTS) originally developed by Yang (1996). The POINTS instrument measures the seven conflict management tactics leaders use with respect to power and influence. The seven tactics are: Reasoning, Consulting, Appealing, Networking, Bargaining, Pressuring, and Counteracting. The revised POINTS instrument is comprised of 39 items and uses a six-point Likert scale to measure the level of agreement from strongly disagree to strongly agree.

The vLeader (short for virtual leader) simulation software was "designed to bridge the gap between concept and real-world experience" (Standifer, Thiault, & Pin, 2010, p. 168). The vLeader simulation is comprised of five modules. Each module simulates a meeting, and each module presents different tasks to explore in increasingly complex scenarios. Best practice for adult learners using technology-based learning includes multiple opportunities for self-assessment and self-correction (Dobrovolny, 2006), and vLeader provides numerous practice activities and assessments to help adult learners. The vLeader simulation provides scores across two main dimensions: leadership and business results (Gurley, Wilson, & Jackson, 2010). Leadership scores are based upon how well learners gain power, moderate tension, and generate new ideas.

Participants completed the POINTS instrument electronically via surveymethods.com. Data was downloaded and analyzed using PASW (SPSS). A new variable was created for each of the seven conflict management tactics from the POINTS instrument utilizing the mean score. The vLeader software gathered scores that were downloaded from Simulearn and analyzed using PASW. Because both instruments have continuous variables, the Pearson Correlation Coefficient was used to compare the mean scores of the POINTS instrument with select vLeader scores (Gall, Gall, & Borg, 2009). Since the *r* value does not determine the level of power within the relationship between variables, r^2 was used to explain the percentage of the relationship that is accounted for in each pairing (for instance, POINTS Reasoning with vLeader Power).

Findings

At the beginning of this study, it was anticipated that participants with preferences for Reasoning or Pressuring conflict management tactics might find it easier to navigate a logic-based experiential

learning mode such as a virtual simulation and obtain higher Leadership and Overall scores. Somewhat surprisingly, statistically significant correlations were found between all seven conflict management tactics and key virtual leadership simulation scores.

Table 1

Strength of relationship between pre-simulation POINTS conflict management tactics and simulation scores (n=301)

		Power	Ideas	Leadership Score	Overall Score
	Pearson	**.220**	.037	**.108**	**.133**
Reasoning	Significance	**.000****	.262	**.030***	**.010****
	r^2	**.048**	.001	**.011**	**.018**
	Pearson	**.194**	-.029	.044	.036
Consulting	Significance	**.000****	.309	.226	.272
	r^2	**.038**	.001	.002	.001
	Pearson	**.116**	-.024	.035	.046
Appealing	Significance	**.023***	.343	.272	.217
	r^2	**.013**	.001	.001	.002
	Pearson	**.137**	-.001	.064	-.003
Networking	Significance	**.010****	.494	.138	.481
	r^2	**.019**	.000	.004	.000
	Pearson	-.001	**-.108**	-.060	-.062
Bargaining	Significance	.494	**.031***	.153	.142
	r^2	.000	**.012**	.004	.004
	Pearson	.079	**-.107**	-.047	-.053
Pressuring	Significance	.089	**.033***	.209	.181
	r^2	.006	**.011**	.002	.002
	Pearson	.010	**-.105**	-.081	**-.101**
Counteracting	Significance	.435	**.035***	.082	**.041***
	r^2	.000	**.011**	.007	**.010**

** $p < 0.01$, 1-tailed.
* $p < 0.05$, 1-tailed.

The four conflict management tactics of Reasoning, Consulting, Networking, and Appealing all had strong correlations with the vLeader measure of Power. The virtual simulation measure of Ideas had strong correlations with the other three conflict management tactics measured by the POINTS instrument: Bargaining, Pressuring, and Counteracting. These findings indicate that virtual leadership simulations can be effective tools for adult learners to practice multiple conflict management tactics.

No previous studies have explored the P.O.I.N.T.S. Power and Influence Tactics Scale (POINTS instrument) and the vLeader virtual leadership simulation. Awareness of the interplay between preferred conflict management tactics and a virtual leadership simulation should lead to improved techniques for

educators teaching leadership skills such as negotiation and conflict management. Leadership skills are important for adult educators because they need that skill set in order to successfully carry out their own job responsibilities, to move up the career ladder, and to effectively train adults in whatever venue they are working.

Implications for Adult Education Theory and Practice

Experiential learning techniques are becoming commonplace and the use of technology is growing within the field of adult and leadership education. This study elucidates the effectiveness of new technologies such as virtual simulations as tools for leadership development. This study contributes to leadership education best practices by exploring the effectiveness of virtual simulations as a method for training leaders that will allow educators to incorporate emerging best practices into their repertoire of methodologies.

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