

New Leadership Model of Alignment

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A 2007 construction management thesis identified that leadership is lacking in the construction industry. It proposes that this shortcoming is in all industries. The major hypothesis of this research is that any attempt to increase leadership by using influence is illogical. It proposes that leadership is alignment, and that leaders align resources in the most efficient and effective positions. It uses industry experts, best business practices, deductive logic, a best value, alignment based model results, and a survey to industry participants, many of them who have been exposed to both traditional leadership programs that espouse influence and the alignment based best value Performance Information Procurement System (PIPS) model to show that alignment may be the correct model.

Keywords: leadership, influence, alignment, best value, efficiency

Introduction

The tremendous pace of industrial development and expansion has created demanding expectations and requirements on the efficiency and productivity of organizations. Increasing competition, high turnover rates, and scarcity of workers are creating problems for organizations to keep up with the required level of efficiency and performance (Carrick, 2007). One of the traits associated with all successful organizations is leadership (Maxwell, 1998; Collins, 2001; Tichy, 2002; Buckingham, 2005; Price and Ritcheske, 2001; Posner and Johnson, 2003). Leadership is the ability to increase productivity, efficiency, and performance (Collins, 2001; Liker, 2004). The industry is drastically searching for a method to increase leadership, thereby, increasing efficiency and productivity.

Traditional Leadership Model

Historically, the industry has believed that the best way to lead is by trying to influence, motivate, and change people (Bass, 1974; Goleman and Boyatzis, 2001; Tichy, 2002; Garrick, 2004). Most leadership ideologies were developed with the understanding that “leadership is the ability to lead, influence, and inspire others (Greene, 2005).” John Maxwell, founder of many leadership organizations such as Maximum Impact, is a well known industry leadership expert (written over 30 books and contracted with over 500 organizations). Maxwell states, “The true measure of leadership is influence – nothing more, nothing less (Maxwell, 1998).” The assumption that one person can influence another is the basic premise that all leadership principles and developments have been founded upon (Figure 1) (Bass, 1974).

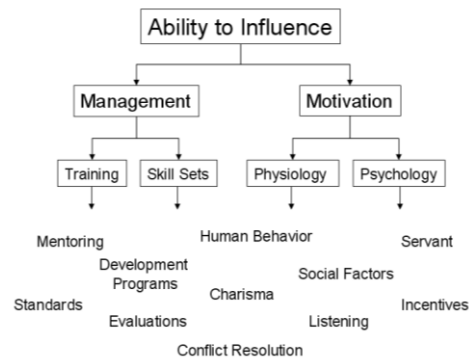


Figure 1: Development of leadership understanding.

The traditional model is founded on the premise that one person’s experience and knowledge can be used/communicated to other individuals to increase their capability to perform (McMillan, 2007) (Figure 2).

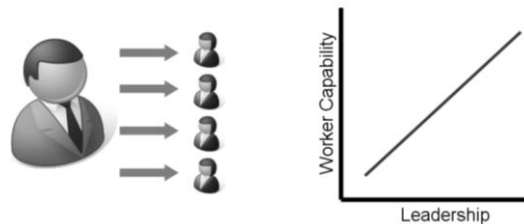


Figure 2: Traditional leadership model.

The traditional leadership model has the following characteristics (Bass, 1974; Tichy, 2002; Garrick, 2004):

1. It focuses on changing, influencing, and motivating people.
2. Performance is constrained by the capability of the followers because it relies on followers being able to adjust to the system.
3. The model is often found being used with inflexible and complex bureaucracies/organizations.

The leader influences the follower to feel, act, or think in a certain way, and the follower changes. However, this philosophy puts the follower as the constraint; it reduces the expectation and accountability of the leader since the expectation of change is on the follower. Furthermore, too much information is required to identify if the leader is responsible for the failure to cause change or if the follower was not capable of the required change.

Consequently, the traditional model inherently increases management by requiring the change driver to be an influencer. Due to natural resistance to change, the model requires organizations to add more influencers/managers if sustained change is to be realized. The role of a leader in the

traditional model is, thus clearly, to influence others as Maxwell stated. Influence denotes the following actions (HR Management, 2006; Chief Executive Group, 2003):

1. Knowledge transfer (which includes: Direction giving and Education, etc.).
2. Inspiring and motivating.
3. Development of technical skills.

These actions are also the responsibility of management. Organizations have built their structure/process to allow for more people to influence others, which increases management requirements and leads to larger organizations and bureaucracies (HR Management, 2006; Chief Executive Group, 2003).

Construction Industry is Looking to Increase Leadership

Over the last decade the construction industry has struggled to maintain its stability and growth. This can be seen through the results of performance evaluations that have been performed:

1. A study performed in 2001, showed that despite the continued increasing demand of construction, the industry has experienced a decrease in productivity at the rate of .8% per year, while all other major industries (manufacturing, farming, health care, etc.) showed an increase of 2-10% per year (Adrian, 2001).
2. Only 60% of all construction firms record profits (Simonson 2006).
3. The average after-tax profit margin is 1.8% compared to 5.5% for other industries (CFMA).
4. Construction companies have the second highest failure and bankruptcy rate (95%) (Simonson 2006).
5. Construction companies fail faster from start-up to collapse of any other industry (Simonson 2006).
6. The latest documented performance shows that 47% of clients would not hire the same construction firm again (Post, 1998).
7. The latest documented performance shows that 33% of construction projects are over-budget, 42% are completed late, and 13% have claims and litigation pending (Post, 1998).

All Industries are Looking to Increase Leadership

The desire to increase leadership capabilities is not limited to the construction field, but has been identified as one of the biggest areas of focus all professional arenas have identified as significant in making organizations more efficient, productive, and able to deliver quality products. (HR Magazine, 2006; Greco, 1997; Delahoussaye, 2002).

This need for leadership can be seen by the dramatic increase in money spent towards leadership development (MIT, 2003; Crain, 2007). Many organizations have implemented public as well as private leadership programs (VNU, 2006; Fulmer, 1997; Crain, 2007; Greco, 1997; Accountants

Media Group, 2006; Chief Executive Group, 2003; Delahoussaye, 2002). In 2000, leadership spending reached \$50 billion, five times more than a decade earlier (MIT, 2003).

Problem Statement

The traditional leadership model has not been able to account for the demands in productivity and efficiency of the industry. Despite allocating numerous resources to train and educate workers, the performance of the industry is on a decline. Organizations are finding that developing or employing talented management with leadership skills is still a scarcity (HR Magazine, 2006; ASTD, 2004). It appears that no documented research effort has shown substantial empirical evidence that the traditional leadership process has worked. Many organizations are finding that there has been no evidence that the traditional leadership programs have had any permanent improvement on organizational performance (Zenger, 2000). In 2005, 78 percent of organizations did not measure the return on investment of their leadership training programs (MIT 2003). A survey of 5,000 HR professionals showed that 65 percent of organizations that had implemented a leadership program were not satisfied with the results (Drew, 1999).

Hypothesis

The current leadership model using influence is incorrect. Influence may not be an effective leadership characteristic. This thesis proposes that a new leadership model focused on the alignment of resources and changing the system instead of changing the people, will be more efficient, effective, and more capable to minimize the problem of the lack of leadership.

Methodology

To identify the problem with the current traditional leadership model the following steps were taken:

1. Research was performed on industry leadership experts.
2. A new leadership model, was developed, based upon concepts and principles derived from leadership experts.
3. A leadership model was identified and analyzed that was based upon the proposed new leadership model's concepts and principles.
4. An industry survey was performed to validate the theory of the new leadership principles.

Leadership Expert Thesis

Research was performed on over 38 leadership experts and 27 different leadership philosophies (Kashiwagi, 2007). The experts analyzed came from:

1. Various different fields (Martial Arts, Automobile Manufacturing, Commercial Manufacturing, Self-Improvement, Business, Management, Law, Politics, and Psychology).
2. Various different times, ranging from the 1500s to the 2000s.
3. The leadership experts include: Abraham Maslow, Jim Collins, Richard Deming, James Allen, Marcus Buckingham, Noel Tichy, Jack Welch, James Kouzes, Lee Iacocca, Peter Drucker, Sun Tzu, Tom Peters, Bernard Bass, John Maxwell, Bruce Lee, Niccolo Machiavelli, and others.

The study found that:

1. There is very little empirical evidence supporting the traditional model of leadership. Most is anecdotal.
2. There are many contradictions and inconsistencies in the traditional leadership model.
3. Although many experts believed that influencing, motivating, and changing other people was a leader's primary role, many also believed that a leader could not influence other people but was responsible for aligning them in the correct position and creating the correct environment in the organization.
4. Many of the most successful leaders were those who believed leadership is selecting the right resources and aligning them correctly.

The following are examples of leadership experts that revealed principles of "alignment" instead of "influence:"

- Deming: adjust structure to fit the constraints of the people (Deming, 1982).
- Collins: select the right people and put into the right position (Collins, 2001).
- Walsh: formulate team philosophy, draft people to fit into the philosophy, then change philosophy to match the constraints of the people you drafted.
- Buckingham and Coffman: use the strengths of people (Walsh, 1998).
- Lee: take the path of least resistance, let people's natural tendencies to destroy themselves (Lee, 2002).
- As Bruce Lee stated in regards to teaching, "I am not teaching you anything. I just help you to explore yourself." (Lee, 2002).
- Machiavelli: birds of a feather flock together (Machiavelli, 1996).
- Peter Drucker: leadership does not deal with being charismatic, leadership is about setting the environment and the course of an organization (Drucker, 2001).

The above experts' leadership principles were developed from the following data:

1. Statistical Analysis (Richard Deming).
2. Study of the most successful organizations within the last decade (Jim Collins).
3. Study of historical precedence and results of other countries (Niccolo Machiavelli).
4. Abnormal success and advances in a specific field of study (Bruce Lee, Jack Welch, Soichiro Honda, Peter Drucker, and James Allen).
5. In-depth interviews of 80,000 managers (Buckingham and Coffman).
6. Followers' approval ratings (Lincoln and Giuliani).

New Alignment-Based Leadership Model

The above experts seem to have concluded that leaders might be able to increase efficiency and productivity of an organization by the correct alignment of resources (the new alignment-based leadership model). The new leadership model focuses on changing the system to adapt to the constraints of the followers. Productivity is not increased by changing the worker capability, but by the placement of resources (people, materials, technology, etc.), that maximizes the effectiveness of each component. Instead of changing the people this model requires the system to change. Therefore, the leader's responsibility is to develop the system in a way that maximizes the capability of the workers. This model truly holds the leader accountable for the performance of the organization, regardless of the constraints of the followers (See Figure 3).

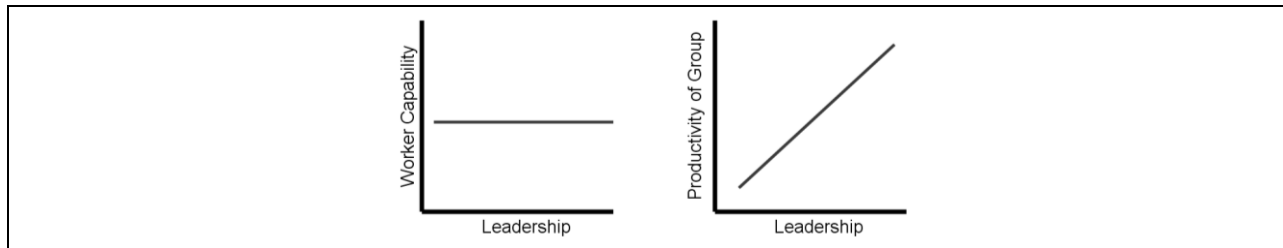


Figure 3: Impact of alignment on worker capability and productivity.

In order for a leader to be successful with this model it requires him/her to be able to understand, correctly identify and differentiate resources. It also requires the system to be flexible. This model works because it takes into account the constraints of the industry. It recognizes that the availability of workers that are skilled, logical, hardworking, and determined is decreasing. It takes into account that most owners are under-educated in the construction industry. Figure 4 below provides a comparison of the Traditional Leadership Model and the New Leadership Model.

<ul style="list-style-type: none"> • Focus on changing people • Followers are the constraint • Requires lots of resources • Relieves management from accountability 	<p>➔</p> <p>➔</p> <p>➔</p> <p>➔</p>	<ul style="list-style-type: none"> • Focus is on changing the system • Leader is the constraint • Efficient • Requires management to understand people
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Figure 4: Comparison between traditional leadership model and the new leadership model.

The proper alignment of resources eliminates the need for changing people, allows an organization to maximize productivity without consuming massive amounts of resources, and increases the efficiency of the organization. Adjusting the structure to maximize the efficiency of the current and future resources (assets, people, etc.) requires the new leadership model to hold everyone in the system accountable, minimizing the need for management. Accountability requires the measurement of performance of individuals based upon the overall supply chain performance results. The insertion of accountability metrics for the entire supply chain (or some organizational element/group) results in goal alignment for all resources and entities involved. When the overall performance of the system is measured and the entities within the system are

held accountable based on performance measurements, the activities and resources will self-align, resulting in less time required to perform non-value adding activities that are not linked with performance. This increases efficiency and productivity (Kashiwagi, 2007).

Identify a System to Test the New Leadership Model

From the identified principles from the leadership experts, an actual implementable leadership model was identified:

- Adjusts structure to fit the constraints of the people (Deming, 1982).
- Select the right people and puts into the right position (Collins, 2001).
- Formulates team philosophy, draft people to fit into the philosophy, then changes philosophy to match the constraints of the people drafted (Walsh, 1998).
- Use the strengths of people, instead of trying to change them (Buckingham and Coffman, 1999).
- Take the path of least resistance, let nature have its course (Lee, 1987; Lee, 2002).
- Birds of a feather flock together (Machiavelli, 1996).
- Leadership does not deal with being charismatic, Leadership is about setting the environment and the course of an organization (Drucker, 2001).

The Performance Based Studies Research Group (PBSRG), out of Arizona State University, has developed a best value model/delivery system that fit the above leadership requirements and focuses on the alignment of resources through performance measurements. The leadership model is called Performance Information Procurement System (PIPS). PBSRG has been validating the model through 530 tests over the past 13 years (\$1B in delivery of construction and services, 98% on time, on budget, and customer satisfaction, \$6.8M of research, and minimized management function up to 90%). The tests and research was conducted by many different public and private users, such as: United Airlines, State of Hawaii Department of Administration and General Services, University of Hawaii, State of Utah, Harvard University, University of Minnesota, Entergy, Arizona State University, General Dynamics, Schering Plough, and NY/NJ Port of Authority (Kashiwagi, 2003).

Best Value Performance Information Procurement System (PIPS)

The best value PIPS process (Figure 5 and 6) is a leadership based structure and process that emphasizes the changing and timing of functions rather than changing the behavior of the participants. This is done in the following ways (Kashiwagi, 2003):

1. Gives the competitive advantage to experts who cannot only minimize the risk that they can control, but who can also minimize the risk that they do not control. Tests have shown that experts who have successful experiences think in terms of supply chain and assist others who are not in their control to minimize risk they may have.
2. Selects contractors/designers/vendors that can identify their performance of their critical personnel, firm/company/subcontractors/sub-vendors through measurement.

3. Uses a risk management system that makes participants accountable for decisions they make. It encourages participants who have concerns to voice their concerns and allow the experts to minimize their concerns.
4. Minimizes the flow of information to performance information. This is an environment where experts thrive and inexperienced personnel are put into a tough environment with minimized directions and external control.
5. Creates an environment of efficiency, accountability, measurement, and performance. Nonperforming entities who cannot preplan, who cause confusion, who are nonperforming become “out of place” in this performance based environment and are easily disqualified.
6. The best value process aligns performing entities, allows them to preplan, documents any risk causing decision making and how the contractors minimize risk that they cannot control that their preplanned risk minimization did not minimize. The system is simple, uses common sense and logic, and minimizes the need for client’s risk management activities.

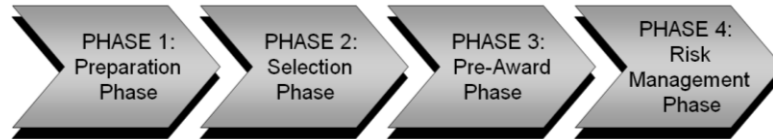


Figure 5: Best value PIPS four phases.

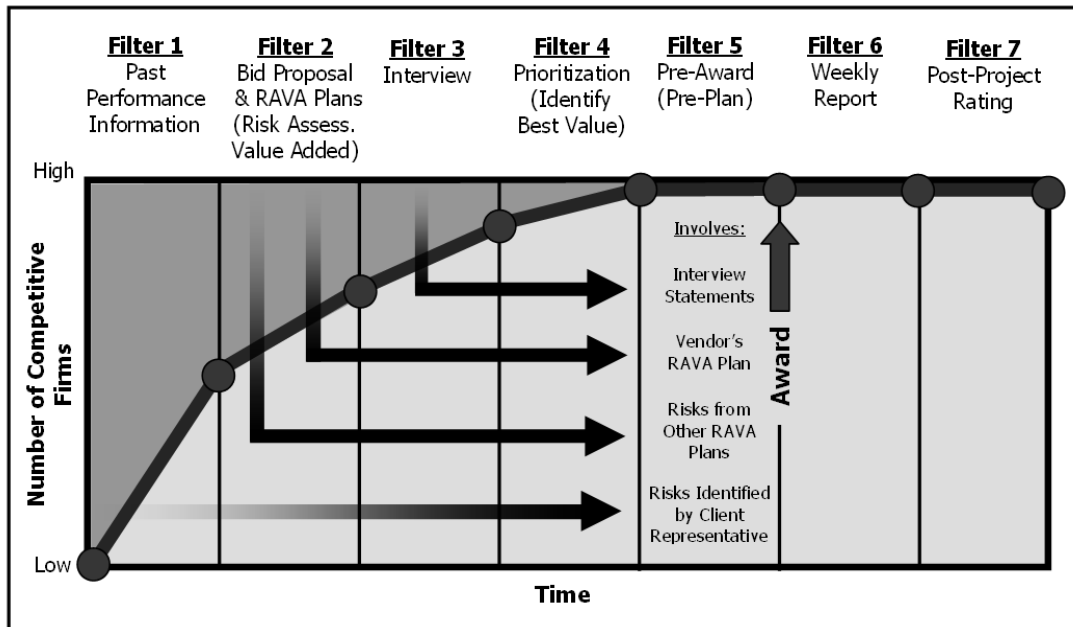


Figure 6: Best value PIPS steps.

The PIPS process has the following components:

1. project preparation (clarification and documentation of owner priorities, requirements, and goals),
2. selection of the best value (based on past performance information, two page document showing the identification and minimization of risk that the contractor does not control, and the ability of their key personnel to minimize risk they do not control or think in terms of supply chain),
3. preplanning and the minimization of risk that the contractor does not control in the form of a quality control plan, and after award of the project to the best value,
4. a risk management system made up of the quality control plan, a weekly risk report, and a schedule that is based on risk events.

A key component of PIPS is the transfer of risk and control to the contractor without trust in people or relationships that require time and use incomplete information. This is based on the previously discussed leadership principle of alignment instead of the concept of influence and control. The PIPS process encourages clients/buyers to:

1. Not make decisions during the selection process. If the alternatives do not differentiate themselves, it will be a price based award. The best value contractor, who is the lowest price, will then have to preplan and minimize the risk that they do not control.
2. If the best value contractor cannot preplan to minimize risk that they do not control, the client can move to the next best value. It transfers the risk and control to the contractor. In 13 years of testing, the best value contractor has been the cause of risk in less than 1% of the 530 tests.
3. The client will use the weekly risk report that allows clients to quickly identify and address risk.

Traditional Influence and Alignment Best Value Model Survey Results

To validate the impact of the traditional leadership programs and the alignment based PIPS process an industry survey was created that measured the performance and impact of both programs. Over 170 high level management and project managers from over 100 different organizations were asked to evaluate traditional processes and compare it to the alignment based PIPS process if they had experience with both. Each statement was rated on a scale of 1-10 (1 meaning total disagreement and 10 meaning total agreement with the statement) (Table 1).

Table 1

Results of leadership process comparison survey

No.	Criteria	PIPS Average Rating*	Tradition al Average Rating*	Differen ce
1.	Our new process increased efficiency and productivity of the organization with measurable results	8.94	5.77	3.16
2.	Our new process had the following characteristics:			
a	Simple Measurements	9.2	5.47	3.72
b	Decreased decision making	8.7	5.15	3.60
c	More efficient information flow	9.0	5.89	3.11
d	Focused on process and not technical details	9.1	5.93	3.13
e	Decreased control and direction giving	8.6	5.03	3.55
3.	My organization eventually rejected the new process	2.4	3.39	0.96
4.	My organization could not measure the benefit of the new process	1.5	4.16	2.70

The industry confirmed that the alignment based PIPS leadership model was able to impact the efficiency and productivity of an organization more than the traditional leadership model (Statements 1 and 4). In order to verify that there was a significant difference between the ratings of the two models a T-test was performed, which verified that the observation was accurate, showing that the probability of having made the wrong assumption for statement #1 was 2.76×10^{-13} percent and 3.371×10^{-5} percent for statement #4 (Kashiwagi, 2007). The traditional acceptable limits are 5% error. Both levels of error were far under .01%.

Conclusion

Significant evidence has been presented that shows that the traditional concept of leadership being influence over others may be flawed. The following conclusions can be drawn:

1. There is no documented evidence that traditional leadership is successful in changing and influencing those who participate.
2. Leadership has always been a lacking quantity, and there has been no solution over the many years of attempting to create leaders.
3. Experts in business, manufacturing, and social sciences have been proposing alignment to maximize efficiency and productivity.
4. If leadership is not influence, but alignment, perceptive individuals who can discern the constraints of others, can align them in the most productive positions.

5. If leadership is alignment, structures and processes can be created and utilized which align resources based on ability to perform.
6. The best value PIPS structure has had outstanding success aligning resources, using dominant information to allow the best value to be aligned.
7. Industry survey resulted in participants significantly recognizing the impact and effectiveness of the alignment based PIPS process over the traditional leadership programs that are based on motivation and capability to influence.

Alignment and influence are opposite, extreme, contrasting and inverse leadership concepts. Further research is required to test out the concept of alignment. Further testing of the best value PIPS process with the objective of embedding leadership into the structure instead of requiring leadership of the participants may have tremendous potential. Preliminary results of 98% performance, up to 90 percent less management, and increased profits for the vendors/suppliers show that alignment and efficiency go hand in hand. If the goal of leadership is efficiency and effectiveness, leadership may truly be alignment and may be automated.

References

- ASTD (2004) Retention leadership: the fundamental assumptions that guided many of the philosophies, principles, beliefs, and teachings of leadership have been largely based on the availability of an ever-expanding and perpetually better-educated talent pool. Those assumptions are about to change in a big way. All of our weather gauges are buzzing. *American Society for Training & Development, Inc.*, T+D, 58 (3): 40, March 2004. ISSN: 1535-7740.
- Accountants Media Group (2006) Accentuate the positive!: Firms can bolster retention strategies with the latest technology, flexibility and a supportive atmosphere. *Accounting Today*, 20 (18): 6A, October 2, 2006. ISSN: 1044-5714.
- Adrian, James J. (2001). "Improving Construction Productivity." *Construction Productivity Newsletter*, Vol.12, No 6.
- Bass, B. M. (1974). *Bass & Stogdill's Handbook of Leadership Theory, research & managerial applications*. New York, NY: The Free Press.
- Buckingham, M. and Coffman, C. (1999). *First, Break All the Rules: What the World's Greatest Managers Do Differently*. Simon & Shuster: New York, NY.
- Buckingham, M. (2005). *The One Thing You Need to Know...about Great Managing, Great Leading, and Sustained Individual Success*. New York, NY: Free Press.
- Carrick, A. (2007) Latest U.S. Employment Picture by Industry – Levels and Year-Over-Year Percent Change. Reed Construction Data, June 8, 2007.
<<http://www.buildingteamforecast.com/article/CA6444894.html>>

CFMA's 2006 Construction Industry Annual Financial Survey. Moss-Adams, LLP, Eighteenth edition.

Collins, J. (2001). *Good to Great*. New York, NY: HarperCollins Publishers Inc.

Chief Executive Group (2003) In search of leaders: Whatever their strategy, CEOs are convinced that grooming top leaders is absolutely key to their companies' ability to compete. Chief Executive Group L.P., October 24, 2003. ISSN: 0160-4724.

Crain Communications, Inc., 2007, A higher standard for managers: Part 1 of 2; Spending on managerial training initiatives is soaring as employers wake up to profound skills gaps. They are now demanding managers with strategic vision, global business acumen and an ability to nurture their employees. *Workforce Management*, 86, 11, 21-23.

Delahoussaye, M., 2002, Licking the Leadership Crisis. In *Training*, 39, 1, 24-29.

Deming, W. E. (1982). *Out of the Crisis*. Cambridge, MA: Massachusetts Institute of Technology.

Drew, R. and Wah, L. 1999, Making Leadership Development Effective. *Management Review*, 88, 9.

Drucker, P. F. (2001). *The Essential Drucker*. New York, NY: HarperCollins Publishers Inc.

Fulmer, R. (1997) Almost every company is trying to create leaders who are capable of helping the organization shape a more positive future. *Organizational Dynamics*, 25 (4): 59-70, Spring 1997. ISSN: 0090-2616.

Garrick, L. (2004) Five Hundred Years of Leadership Theory: The Challenge of Self-Knowledge and Learning. NorthShoreGroup, LLC, Seattle, WA. Pacific Northwest Organization Development Network, PNODN Learning from Experts Series, October 6, 2004.

Goleman, D. & Boyatzis, R. & McKee, A. (2002) *Primal Leadership: Realizing the Power of Emotional Intelligence*. Boston, Massachusetts: Harvard Business School Publishing.

Greco, J. (1997) Corporate home schooling. *Journal of Business Strategy*, 18 (3): 48-52, May 1997. ISSN: 0275-6668

Greene, Jefferey D. (2005). *Public Administration in the New Century*. Belmont, CA: Thomson Wadsworth.

HR Magazine (2006) Talent management: driver for organizational success. *HR Magazine*, 51 (6): S1, June 2006. ISSN:1047-3149.

Kashiwagi, Dean T., (2003). *Best Value*. Tempe, AZ: Performance Based Studies Research Group (PBSRG).

- Kashiwagi, Jacob (2007) *Leadership is alignment not influence*. Arizona State University. Tempe, AZ: United States of America. Master Thesis.
- Lee, B. (2002) *Striking Thoughts: Bruce Lee's Wisdom for Everyday Living*. Tuttle Publishing: Boston, MA.
- Liker, J. (2004) *The Toyota Way: 14 Management Principles from the world's greatest manufacturer*. McGraw – Hill Professional: United States.
- Machiavelli, N. (1996) *The Prince*. Humanities Press International, Inc., Atlantic Highlands, New Jersey 07716.
- Maxwell, J. C. (1998). *The 21 Irrefutable Laws of Leadership*. Nashville, TN: Thomas Nelson, Inc.
- McMillan, Ron (2007) Master Influencers. *Leadership Excellence*, 24, 10: ABI/INFORM Global. October 2007.
- MIT Sloan School of Management (2003) Why leadership-development efforts fail. *MIT Sloan Management Review*, 44 (3): 83, March 2003. ISSN: 0019-848X.
- Price, B. & Ritcheske G. (2001). *True Leadership*. Dearborn Financial Publishing, Inc.
- Posner, K. & Johnson S. (2003). *The Leadership Challenge*. San Francisco, CA: Jossey-Bass.
- Post, N.M. (1998) Building Teams Get High Marks. *Engineering News Record*, 240[19], 32-39.
- Simonson, Kenneth (2006). Quick Facts. Association of General Contractors, Chief Economist Report.
- Tichy, N. (2002) *The Leadership Engine*. HarperCollins Publishers, Inc., New York, NY.
- VNU Business Media (2006) GE hones its leaders at Crotonville. VNU Business Media, Training, 43 (5): 25, May 2006. ISSN: 0095-5892
- Walsh, Bill (1998) *Finding the Winning Edge*. Sports Publishing Inc. Champaign, IL: United States.
- Zenger, J. and Smallwood, D. 2000, Leadership: The New Leadership Development. *Training and Development*, 54, 3, 22-27.