

Leadership Education and Training “Leadership Skills Truly Make a Difference”

William W. Badger and Avi Wiesel
Arizona State University
Tempe, Arizona

Peter H. Bopp
Du Pont, Retired
Santa Fe, New México

This paper discusses the importance of leadership skills and how improving one's leadership abilities will lead to improved personal and organizational performance. It connects the individual's skills to organizational leadership and shows how that improves the company's performance. It provides data about leadership in construction, collected from industry professionals as well as curriculum topics used in leadership seminars, and shows how these topics were developed. It recommends that Construction Management programs have stand alone courses in leadership and conduct research on CM leadership topics. The paper concludes with the authors' version of curricula in developing leadership abilities in courses and industry seminars.

Keywords: Leadership and management, leadership education and training, leadership and performance

Introduction

Anyone reflecting on the increasing rate of construction experienced over the past six decades and projecting its growth in the future arrives at the realization that some fundamental improvements will be needed to face the challenges awaiting the construction industry. If a growth rate of only 2.5% per year is assumed, the construction production will double within 30 years. If this rate were true throughout the recorded history, one can say that “in the next thirty years we will build more things on this earth than we have in the last five thousand years.” Add to this the need to maintain and renovate much of the existing infrastructure, and one cannot help but conclude that a historically unparalleled *Investment in Talent and Human Resources* will be needed. This need will exist in America and abroad.

The authors believe that the most fundamental element required to meet this future construction challenge is a broad-based excellence in construction leadership. This cannot happen just by creating solid leadership skill sets in all construction management graduates. It must also demand the continuously improving leadership attributes of current construction professionals and the organizational leadership capabilities of entire construction companies.

A few years ago, the Del E. Web School of Construction (DEWSC) created an educational vision expressed through the slogan “*where leadership begins.*” To realize this vision, the faculty (a) placed new emphasis on working as teams within the Construction Management (CM) courses; (b) established a mandatory field internship requirement; and (c) requested students write a term paper on their own leadership philosophy. The school also secured funding for leadership scholarships, which enabled students to attend the LeaderShape week-long program at the University of Illinois.

In 2006, the school adopted mandatory, separate, undergraduate leadership courses to augment the “management and safety” and the “project management” courses. The faculty recognizes today that professional constructors must possess strong skill sets in leadership and management as well as knowledge of all modern construction related technologies. Internally, the argument was made and accepted that over the years too much attention and resources had been directed toward teaching management control rather than leadership abilities. Management is viewed as the set of **activities** performed to advance and guide an organization towards achieving its goals in a disciplined way. These activities include planning, controlling, organizing, and administrating operations. Leadership, on the other hand, is viewed as the set of **abilities** required to define the goals of the organization and motivate people to achieve those goals. These abilities include communicating, motivating, and human relationship skills. The question still under debate concerns the correct balance between leadership and management skills that students should have upon graduation. According to (Badger and Smith, 2005) the CM graduate’s balance between leadership and management skills will keep changing.

In this paper the authors refer to the group of people who participated in leadership courses or in seminars as “learners.” “Students” are those registered for a university course and are a subgroup of the “learners.”

Leadership Courses

Two cross-listed leadership courses were introduced at DEWSC in 2005: CON 494 - Principles of Leadership, a two credit hour undergraduate course, and CON 598 - Principles of Leadership, a three credit hour graduate level course. The extra credit hour in the graduate level course requires the preparation of a leadership research paper. Typical leadership research topics selected by students in the graduate level course have been:

- Adaptability of a leader and the required leadership attributes
- The commonality of leadership and entrepreneurship
- Attitude of leaders and its effect
- Passion’s role in leadership
- Ego and ego blindness of some leaders
- Sustained niceness of leaders
- Is enthusiasm the number one identifier for attitude?
- Threatening versus Non-threatening leadership styles
- Leadership wisdom gained from the Bible

In each leadership research paper, the learner is asked to determine how the discussed leadership ability and its effect on performance can be measured. This requirement has been the most difficult aspect for each student but also the one inducing the most learning. The intent of the measuring requirement has been to ensure that each research topic includes a degree of creativity and adds to the body of knowledge instead of just being a literature review.

The material developed for the university courses served as a basis for developing a leadership seminar (44 contact hours) for employees of a residential construction company. Today the

DEWSC faculty has completed an academic year of leadership research, a series of Industry Leadership Seminars, and four university leadership courses.

Leadership Research Results

Two graduate students surveyed literature (hundreds of articles and papers) regarding leadership skills, and listed all the skills (each student reviewed different ones). The most frequently mentioned leadership skills, from the 150 abilities identified are presented in table 1.

Table 1:
Most Frequently Mentioned Leadership Skills

Skill Identified in the Literature	List # 1	List # 2	Total
Communication skills – oral & written	32	26	58
Technical expertise in own field, technical skills	22	35	57
Motivating and promoting	24	27	51
Honesty & development of trust	22	24	46
Self-awareness, emotional balance, understanding of values	18	24	42
Problem identification and solving	17	22	39
Team work, delegation	18	19	37
Flexibility	25	9	34

This list and the industry generated “hassles data” described further down served as guidelines for developing the class and seminar topics: communications, motivation, core values, ethics, team building, understand self, individual leadership skills, organizational skills, vision/mission/goal formation, and conflict resolution.

Leadership Course / Seminar Model

The leadership education model for the academic curricula and the industry seminars was based on educating the learners on individual leadership skills first, then second, organizational leadership, and third the analysis of leadership processes.

The Marine’s Leadership Model (US Marine Corps NCO Academy 2006) serves as a reference. This model assumes seven leadership focus levels: (1) Leading self, (2) Preparing to Lead, (3) Lead Marines, (4) Lead Subordinate Leaders, (5) Develop Subordinate Leaders, (6) Develop Leadership Climate, and (7) Lead Change. From this hierarchy of levels the idea emerged that an organization’s leadership capability can be directly correlated to its performance. This led to the belief that an enhancement of individual leadership skills should improve performance, and that the improvement of overall organizational leadership will result in a more effective organization.

DEWSC’s leadership research program is based on the same premises as its education model:

- Educating and training an individual to develop a set of leadership skills should improve that individual’s performance by increasing her/his effectiveness rather than efficiency. Researchers are developing methods and tools to profile optimal leadership abilities.

- The improvement of an individual's leadership skills and the implementation of leadership knowledge will enhance the organization's leadership culture and develop a more focused leadership model. The researchers are working on developing a tool to profile an organization's leadership affinity.
- There should be an optional balance between leadership focus and management focus at both the individual and organizational levels. Researchers are investigating ways to identify the balance between leadership and management needed for optimal performance at different career stages and in response to different challenges.
- A futuristic type of organizational process/structure may be able to empower managers to produce the results of the leadership model without requiring all the individuals involved to be experienced leaders themselves. The research in information worker applications seems to support such a revolutionary idea.

Leadership Seminar Methodology

To really acquire leadership abilities a learner must be exposed to:

- Reading and researching about leadership.
- Assessment of personal leadership abilities and identification of strengths and gaps.
- Group and individual discussion opportunities about leadership issues with instructors.
- Interactions with individuals that are successfully practicing leadership.
- Opportunities to practice, practice and practice, and continuously measure the results.

The topics for the industry seminars and university classes were developed based on extensive literature searches and designed to be covered in 50 minute sessions. Initially, different session topics were developed – one for the university courses and another for the industry seminars. After incorporating back into both curricula significant learner generated feedback, it was found that the contents had merged to a point that today there is little differentiation between the two education ventures.

In a typical three to four hour seminar period, the theory versus application is split 50-50. During the university and seminar course work, the instructors cover leadership theories first and then conduct classroom group work exercises that reinforce the real world application and implementation. Some excellent learner driven information has been obtained as a result of the workgroup efforts. The learner generated information is usually re-written by the instructors and re-prioritized by the learners during the next session. This technique encourages the learners to re-visit the material; something that has proven to significantly enhance retention. In addition, the material has become an excellent source of leadership information and produced summations of individual lectures.

The following describes the basic leadership teaching curricula and some of the most interesting findings and collected wisdoms using this methodology.

Text Books

All learners appreciate being able to select their own text book from a list of 60 leadership books. Through their written book reports and book review presentations, they become champions of the author they selected. During two semesters, students recognized and voted for the most informative leadership books. The top nine selected were: (1) *Good To Great* by Jim Collins, (2) *Lincoln on Leadership* by Donald T. Phillips, (3) *The West Point Way of Leadership* by Larry Donnithorne, (4) *The 7 Habits of Highly Effective People* by Stephen Covey, (5) *How to Win Friends and Influence People* by Dale Carnegie, (6) *The 21 Irrefutable Laws of Leadership* by John C. Maxwell, (7) *The 48 Laws of Power* by Robert Greene, (8) *Leadership Secrets of Attila The Hun* by Wess Roberts, and (9) *Sun Tsu the Art of Business* by Mark McNeilly.

Introduction to the Principles of Leadership (4 contact hours)

In the introduction session the subjects of adult education, student expectations, the learning pyramid concept, and the principle that human problems require human solutions are discussed. The learners generate a “hassle list,” participate in profiling good and bad bosses and derive good leadership skills from good bosses’ traits. The instructors also discuss leadership versus management concepts and conduct group quizzes on leadership versus management comparisons. All of this leads to the development of leadership skills sets based on a list of attributes, people relationship aspects, personality traits, and behaviors.

Construction Process Hassles

Hassle lists (the red flags that most likely identify problems within a company) are generated by ten or more workgroups of five professionals, each group identifying four to eight different “hassles.” The consolidated list presented in table 2, which went through significant joint redefinition and merging, is a good example of the end product. Although, the hassles in this example were developed by employees from just one company, discussions with other construction company presidents have validated them as quite representative of the hassles and problems existing in many construction companies.

Table 2

Process Hassles

1	Communication breakdowns (communication was listed more than any other hassle)
2	Changing vision, lack of common & poorly defined goals, unclear chain of command.
3	Lack of — or incomplete — planning at all levels.
4	Poor scheduling, cut off dates not enforced, unpredictability of construction completions
5	Poor sub-contractor relations, control, administration, trades and staff cooperation.
6	Lack of teamwork, lack of consideration between trades.
7	Inadequate training at all levels.
8	Poor leadership
9	Poor coordination in dealing with agencies, understanding and accepting responsibility
10	Battles for adequate staffing, constant turnover of personnel and failure to properly transfer duties.
11	Recognition, attendance at corporate meetings, competitive compensation.
12	Poor organizational management

The lists drawn up during these “hassle” exercises become the bridge to all the subsequent session topic areas. The instructors demonstrate that the identified “hassles” are true leadership issues and not only management control aspects as too often assumed. Instructors also show that the subsequent seminars and their topics are aligned with the hassles/problems identified and are tailored to construction and to the learner’s company. These topics go well beyond generic leadership issues. In addition to having extensive knowledge about leadership issues, learners made it abundantly clear that the trust (and therefore impact) generated by an instructor is based on their personal experience with construction processes and in being successful leaders themselves.

Good and Bad Bosses Survey

During six seminar presentations, the authors took surveys of traits that identify good and bad bosses. Those surveyed were construction industry professionals, construction accounting (CPA’s) professionals, and construction management students. The students, in every case, had had at least a part-time job experience. From these surveys the top five best and the five worst boss traits were described as shown in table 3.

Table 3
Good Boss / Bad Boss Traits

Good Bosses		Bad Bosses	
A great mentor	50%	I was not appreciated	63%
Listens to me	48%	He/she was a micro-manager	56%
Creates an environment of trust & confidence	48%	Does not share his/her vision with us	54%
Makes me feel appreciated	44%	Lacks ethics	46%
Respects me	37%	Does not respect me	33 %

The primary purpose of the surveys was to emphasize the importance of leadership, but they also demonstrated the differences between leadership and management. The list makes it obvious that leadership is deeply anchored in the people skills side of the work place while management is in the planning, operations, and controlling side. Ninety percent of the good and bad boss traits are leadership issues; only one trait is clearly a management issue and that one is on the bad boss side. It should be noted that three very dissimilar groups of surveyed learners identified basically the same traits. Clearly those surveyed want to work in an environment of trust and confidence where bosses 1) appreciate their followers, 2) listen and communicate with them, and 3) demonstrate respect. The number one issue defining a good boss seems to be caring and mentoring his or her followers, in other words the development of people.

The bad boss trait of “micro-management” that really is a lack of trust received 56% of the votes; the highest of all management traits. This supports the authors’ belief that micro-management leads to inefficiencies if continued to be practiced at the expense of leadership skills. All professionals surveyed had an excellent appreciation for leadership and how important it is to be a “good” boss. The case was built that to be a good boss professionals need good leadership and people skills. The differences between leadership and management and the importance of practicing most of the best leadership abilities were highlighted.

Definition of Leadership (4 contact hours)

Historical successes attributed to leadership, what other folks are saying about leadership and management philosophies and principles, help define leadership. However, sixty percent of the 100 leadership books reviewed did not have clear definitions of leadership. The DEWSC researchers are looking at leadership from the 30,000 foot level, and the big picture of leadership is discussed during the university and seminar courses. The final sessions are devoted to learn from masters like Roosevelt, Lincoln, Bennis, and Covey. By studying the masters, the industry seminar employees derived 30 “Pearls of Wisdom”. The top 10 “Pearls of Wisdom” are presented in table 4

Table 4

Pearls of Leadership wisdom

1. Leaders educate, give respect, and support their people.	(72 %)
2. Communication is the key to all success.	(59 %)
3. Seven magic words “please,” “thank you,” “you’re welcome,” “yes sir,” “no sir,” “yes ma’am,” and “no ma’am.” Instructors added to these “good question” and “good job.”	(57 %)
4. Leaders delegate and trust their employees and bring out the best in everyone.	(48 %)
5. Never ask more out of your people than you are willing to give of yourself.	(47 %)
6. Always be open and honest, openness promotes ethical behavior.	(45 %)
7. There is no “I” in team.	(45 %)
8. Great leaders are quick to accept blame and quick to give credit.	(45 %)
9. Leaders share information with others and consequently receive additional knowledge.	(43 %)
10. Leaders set expectations and hold people accountable.	(42 %)

Understanding Yourself (4 contact hours)

After the first two leadership courses, the history of personality theories is discussed. The role of personalities in leadership, what are we born with and our self-knowledge, is the core theme. The instructors review four different papers on the value of the Meyers Briggs and what this assessment can tell us. Each learner then takes the Myers-Briggs on-line test and discusses the results in an open session with his or her work group. The Bernstein exercise to determine the student’s core values is also discussed and used. According to (Badger & Smith 2005), it appears that leaders are first people with good core values who then develop a company’s core values, both of which must be in alignment. One of the industry speakers in the university class, Emerson Johns of Du Pont, re-emphasizes core values and the alignment issue. A third exercise and analysis (McFletcher Work Styles) is conducted and each student’s preferred Work Style versus the actual Work Style is determined. The students at the end classify themselves into one of the 29 WorkStyles profiles (Badger & Warner 1991).

Understanding Human Behavior (4 contact hours)

These sessions cover the motivation theories (Hygiene Factors, Theory X & Theory Y, Frederick Herzberg, Two Dimensional Modeling and Abraham Maslow with his hierarchy of needs and principles.) There is significant material on motivation, and instructors have developed presentations designed to induce four hours of questioning and reflection. The discussions center on what drives human behavior and the fundamental needs of every person. This evolves into

the concept of knowing and understanding the stakeholders, and ends up with the conclusion that the best leaders are those able to create a win-win relationship with all.

Improving Teams (4 contact hours)

Building effective teams (construction is a team effect, how do effective teams work?), team dynamics, working with teams, and the team building process are discussed. The characteristics of effective teams, team performance curves and team identity and rewards complete the discussion. Leadership techniques are reviewed down to even the daily little things one can do to develop leadership skills in oneself and others.

Communication (4 contact hours)

(Kevin Hogan, 2006) defined excellent communication as the ability to transmit a message to a receiver and have that message correctly replicate in the receiver’s mind. Communication functions, styles, and models are reviewed. Sessions on communication cover the culture within the company, why communication fails, active listening, positive feedback, and good and bad body language. Implementing good communication skills ranked as the number one skill set for outstanding leaders. According to (Walsh 1993) the most important factors for students searching employment are by order of importance: (1) Oral Communications, (2) Listening Ability, (3) Enthusiasm, (4) Written Communication Skills, and (5) Technical Competence.

Conflict Management (4 contact hours)

Leaders are the chief negotiators of conflict and consequently needed conflict management skills. After being presented with several theories about conflict management (Mayer 2000), the learners are presented with a list of items related to conflict and conflict resolution. Each learner is then asked to select the top 20 items. The skills receiving more than 60% votes are presented in table 5.

Table 5

Top Conflict Management Skills identified by seminar participants

1	Setting goals.	86%
2	Learning form mistakes. (use feedback properly)	86%
3	Building trust (An environment of trust and confidence guarantee less conflict)	71%
4	Poor communication is the main cause of conflict	71%
5	Acting ethically	71%
6	Facing the brutal facts.	71%
7	Being honest about concerns.	71%
8	Conflict source as employee: Failing to be open and honest with the bosses	71%
9	Conflict source as boss: Failing to be open and honest.	71%

Techniques for Improving Leadership and Self (4 contact hours)

In construction, as in all other professions, time is a fixed quantity. The only control one has is - where and how to spend the available time. Each person unconsciously or consciously does this according to a “molecule diagram” that defines the players and the importance of their relationship to the individual. A leader who consciously analyzes the time spent on each

relationship will be able to identify any new items/actions in those relationships that are needed to achieve a desired performance. According to (Badger & Mulligan, 1992) the successful leader/manager develops and applies the interpersonal skills needed to work his or her molecule. In developing a leadership style, it is clear that people make the system work. Understanding who is on one's "molecule" means that one cultivates and maintains the relationships with people within one's working environment. Any leadership philosophy, therefore, has to focus on people and their relationships.

Creating Leaders (4 contact hours)

During a series of past leadership seminars with industry professionals, university students' leadership techniques were identified and ranked in order of importance within this construction company. Fifty techniques were identified in the first exercise and the percentages represent the priority ranking during the second iteration exercise. The results are presented in table 6.

Table 6
Most Effective Leadership Techniques

1	Admit when you are wrong.	83%	9	Praise the specific task when successfully completed.	54%
2	Use humor, it softens many tense situations.	67%	10	Ask for help, it makes folks feel good to help the boss.	50%
3	Smile, it relaxes people and laughter is healthy	67%	11	Remember employees' names and use them often.	50%
4	Actively listen at all times	62%	12	Give the "OK" signal when you agree with others.	46%
5	Accept others' opinions.	58%	13	Be a delegator and compliment successes.	46%
6	Share information.	58%	14	Listen thoroughly before you speak	46%
7	During work time, be easily accessible.	58%	15	Accept differences in others.	42%
8	Shake hands or give a pat on the back	54%	16	Treat others as you would like to be treated.	42%

Organizational Leadership (4 contact hours)

All construction managers have to be sensitive to the relationships of the people around them. The "molecule analysis" described previously is also a way to look at organizational relationships. The resulting understanding helps improve the organizational leadership skills. Organizations and companies have an external molecule and their relationships require work just like those of individual relationships. Skills in directing and delegating (don't be a micro-manager, lead and motivate), leadership and strategic change (develop that leadership vision) time management, organizational leadership (create an environment of trust and confidence) and finally trust development and maintenance are some of the techniques at an organizational level.

Conclusions

The Industry professionals who attended the leadership seminars recognized the need for leadership education and training and were pleased to take the training from instructors who understood the construction process as well as leadership. The Industry willingly committed resources for training and helped validate the theory that improved leadership skills improve individual performance. The employees attending the seminars saw this training as a perk and

were willing to invest personal, unpaid time on Saturday mornings, to participate in leadership classes just to improve their job proficiencies.

Leadership education should be an essential part of Construction Management academic programs curricula. In the leadership classes where the learner produced a product there was significantly improvement in academic performance. Material developed during class exercises contained valuable information and data that was used to improve future classes and seminars. Letting the students select their own text book seems to be an excellent approach and brings new knowledge to the instructors and the curricula body of knowledge. Additionally, the leadership curriculum improved students' interview skills by discussing leadership in the perspective of the potential employers.

In graduate leadership classes, the mandatory research assignments provided excellent information and generated interest among the graduate students to continue research in the leadership area and spawned a number of papers. The leadership research efforts and the leadership classes and seminars were mutually supportive and provided new data and information to each endeavor.

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