The Intersection Between Soft Skill Development and Leadership Education

Christie Brungardt, Ph.D.
Instructor of Leadership Studies
Department of Leadership Studies
Fort Hays State University
Hays, KS 67601
cjbrunga@fhsu.edu

Abstract

This study examined the relationship of soft skills gained to the amount of leadership education completed by graduates from the Department of Leadership studies at a Midwestern regional university. Those who received no leadership education were compared with those who received a leadership certificate and those who received a bachelor's degree in Organizational Leadership. The study provided insight into whether academic leadership education enhances graduate's soft skill development and assessed the impact this had on their perception of teamwork proficiency. Results indicate that a bachelor's degree in leadership does make limited significant changes in graduates' soft skill proficiency as compared with graduates who received a leadership certificate. Multiple significant changes were found in graduates with bachelor's degrees as compared with graduates who received no leadership coursework.

Introduction

Leadership involves a relational process that requires working with others to accomplish a goal or to promote positive change. Education for leadership concentrates on the soft skills, that relationship factor involved in human interaction required to achieve positive outcomes from the leadership process. The notion that soft skills can be taught and learned in an academic environment has led to the proliferation of varied leadership education programs in this nation's colleges and universities (Brungardt, Greenleaf, Brungardt & Arensdorf, 2006; Crawford, Brungardt & Maughan, 2000; Daft, 2002; Funk, 2006). Educational outcomes for these college graduates have the potential to positively impact this nation's organizations.

As the world has changed over the last century, so has the world of work. Yesterday's workers were asked to carry out repetitive tasks within a traditional production operation (Carnevale, Gainer & Meltzer, 1990; Wilhelm, 2002). Many of these organizations were structured in a pyramid style and were supervised by a traditional top-down, hierarchical approach (Carnevale, et al., 1990). This command-and-control organizational design required only those at the top of the pyramid to make decisions, interact with others, and solve problems. The remainder of the organization's members, large numbers of people, worked within the same organization yet had little decision-making power and very little need for interaction with one another. They just did as they were told, or else.

Today's knowledge workers have far fewer individual repetitive tasks, much more autonomy, and far more need to work with and through people at every level of the organization (Carnevale, et al., 1990; Overtoom, 2000; Smith, 2002). This requires an additional new set of skills for organizational members. As a result of the *flattening* of the traditional organizational hierarchy, workers at all levels are now required to be proficient in these soft skills. More often these skills are being required of non-supervisory employees which in turn mean that everyone in the organization needs development in these skills, not just a select few at the top.

Organizational Life and Leadership Education

Recent studies of United States employers found that employers recognize the fact that this nation's colleges and universities play a major role in the country's ability to drive innovation and competition in the global economy, yet they see much room for improvement in the level of preparation of today's four-year college graduates (AACU, 2002; Casner-Lotto & Barrington, 2006; Dwyer, Millett & Payne, 2006; Hart Research Associates, 2006; U.S. Department of Education, 2006). Three skill areas consistently cited as deficient in incoming hires are the ability to collaborate effectively with others in a team environment, critical thinking skills, and the ability to communicate effectively across various constituencies (e.g., Dwyer, et al., 2006). These skills are needed by members of every level of organizations to be more capable in effective teamwork, problem-solving, decision-making, and communication.

The culmination of three factors – the changes in both the workplace and the work force, the evolution of leadership as a field of study, and the role of higher education in serving the needs of the nation – has served to rapidly propel the academic discipline of leadership studies forward in higher education. Since Burns' *Leadership* (1978*)*, the number of leadership education programs in higher

education has grown to nearly 1000 (Brungardt,et al., 2006; Eich, 2003; Mangan, 2002; Riggio, Ciulla & Sorenson, 2003). By examining the learning objectives and outcomes of leadership education programs, one can determine the potential for leadership education to fill this void where traditional disciplines in higher education appear to leave gaps.

This study investigated how well college graduates were prepared for effectiveness in today's contemporary workplace. The focus was on the use of soft skills in modern organizations and the impact one university's leadership studies program has on the soft skills of its graduates. The primary purpose of this study was to determine whether graduates with an academic background in the discipline of leadership studies were better equipped with essential soft skills required to be successful in contemporary organizations.

Literature Review

As the organizational landscape has changed over the last 60 to 70 years, so has the need for changing member behaviors. Early research focused on individual factors associated with behaviors identified as leadership (Bird, 1940; Stogdill, 1948). In the late 1960s and early 1970s researchers studied a broader picture by looking at organizations more holistically, not only the individual people involved, but also the situational context, setting, and climate where leadership is exhibited. By the mid 1980s, organizations from a wide variety of societal segments called for the increased use of teams to improve organizational life.

In 1990 the American Association of Training and Development published a study explaining the reasons behind the changing needs in the workforce. The study revealed that the characteristics of the new world marketplace would be much different (Carnevale, et al., 1990). This new work environment would require workers at all levels to solve problems, engage in problem-solving to improve work methods, and interact effectively with their coworkers (Bailey, 1997; Packer, 1998).

Between 1986 and 2006 numerous studies provided evidence that the skill set known as soft skills would be critical to future workplace effectiveness. This literature provided considerable linkage between the desired skill set commonly referred to as soft skills and those skills cited as necessary for effective teamwork. Dr. Harry O'Neil from the University of Southern California pioneered much of this work. As shown in the work of O'Neil, Chung, and Brown (1997), when soft skill proficiency was compared to effective teamwork skills, several similarities emerged. The first section of Table 1 lists nine major studies utilized in this

literature review. Listed with these studies are the soft skill needs cited by employers as most deficient in their incoming hires. The next section illustrates the alignment between these skills and the six dimensions of the Teamwork Skills Questionnaire (O'Neil et al., 1997). The instrument was utilized in this study.

Table 1: Main workplace soft skill needs reported in nine major studies and alignment of teamwork with soft skills

SOFT SKILLS		
Carnevale 1990	**U.S. Dept of Labor 1991**	**AACU 2002**
Communication	Communication	Communication
Interpersonal	Decision-making	Problem-solving (adaptability)
Adaptability	Problem-solving (adaptability)	Work with diverse groups
	Creative thinking	
	Interpersonal	
	Leadership	
GMAC 2004	**AACSB 2006**	**Casner-Lotto & Barrington 2006**
Communication	Communication	Communication
Interpersonal	Interpersonal	Leadership
Leadership	Teamwork skills	Work with diverse groups
		Teamwork skills
Dwyer et al., 2006	**Learning & Skills 2006**	**Hart 2006**
Communication	Communication	Communication
Creativity	Problem-solving	Work with diverse groups
Teamwork skills	Teamwork skills	Teamwork skills

TEAMWORK SKILLS	
Adaptability	Recognizing problems and responding
Coordination	Organizing team activities
Decision-making	Using information to make decisions
Interpersonal	Interacting with team members
Leadership	Providing team direction
Communication	Exchange of accurate information

Adapted from O'Neil, Chung, and Brown (1997)

In summary, regardless of the term used – soft skills or teamwork skills – a trend appears to be emerging. The importance of these skills is now emphasized more for every worker within every organization, regardless of position or authority. Developing each employee's full potential has never been so critically important. Daniel Goleman, expert in the area of emotional intelligence and soft skills, believes that to develop this type of skill one must use a different model of learning (Schinn, 2003). Riggio, Ciulla, and Sorenson (2003) noted that many leadership education programs incorporate this experiential educational approach into their curriculum in one form or another.

The emerging academic discipline of leadership studies strives to meet the needs of this new high performance workplace. Some colleges and universities have even developed full undergraduate degree offerings in leadership. Brungardt et al. (2006) searched for those programs in the United States offering a bachelors degree in leadership. Of the 15 identified schools offering a degree in leadership, several curricular commonalities were discovered. Courses in skill development were considered essential in 14 of the 15 programs.

As many of these soft skills are required to successfully interact within a collaborative team environment, the possibility of measuring teamwork skills has been explored as a way to measure for soft skill proficiency. This study provided insight into whether academic leadership education enhances graduate's soft skill development and assessed the impact this had on their perception of teamwork proficiency.

Methodology

This study was conducted using the survey research method. The purpose of survey research is to gather data from groups of people by utilizing questionnaires (Ary, Jacobs, & Razavieh, 2002). Gall et al. (2003) stated that "the purpose of a survey is to use questionnaires or interviews to collect data from a sample that has been selected to represent a population to which the findings of the data analysis can be generalized" (p. 223).

Research Question

Is there a statistically significant difference in self-reported ratings of soft skills between students with no leadership education in comparison to students with a certificate in leadership and in comparison with students who earned a bachelor's degree in Organizational Leadership?

Related Hypotheses

H_{01}: Students with no leadership education will report significantly different scores than leadership certificate holders.

H_{02}: Students with leadership certificates will report significantly different scores than leadership degree holders.

H_{03}: Leadership degree holders will report significantly different scores than those without leadership coursework.

This study compared skills and abilities between three groups of graduates with varying levels of leadership education. Examined were three groups of graduates that received no leadership education, a leadership certificate, or a degree in Organizational Leadership, respectively.

Population and Sample

The population for this study completed their degrees between the spring of 2003 and the spring of 2008. For the three groups to be more consistently represented, the decision was made to use a stratified random sampling strategy for selection.

Assuming a medium effect size with a probability level of <.05, at least 52 responses were needed from each group (Cohen, 1992). This was the minimum number needed to run analysis of variance with meaningful conclusions. In an effort to yield at least 52 responses, deliberate oversampling occurred in the first two groups. As there had been only 155 graduates of the Organizational Leadership degree through the spring of 2008, this entire group was selected.

Surveys were mailed to 225 randomly selected graduates from across all university departments who had never taken a leadership class. These students completed their major requirements as well as all general education requirements, but had taken no leadership coursework. Likewise, 225 graduates who had received the leadership certificate from the Department of Leadership Studies, in conjunction with their chosen major and general education requirements, were mailed surveys from a total population of 464. All 155 graduates who had received the 12 course, 36-credit hour degree in Organizational Leadership, coupled with cognate requirements and all general education requirements, were included in the survey mailing.

Data were collected between November 2008 and January of 2009 using Dillman's Tailored Design Method (2007). A total of 558 surveys were sent. After the fifth contact was made (as recommended by Dillman) ultimately 301 graduates responded. This represented a total response rate of 53.9%.

Instrumentation

The selected instrument for this study, the Teamwork Skills Questionnaire (O'Neil, et al., 1997), is intended to measure teamwork skills and focuses on the skills a person should have to be effective in a team (Cronbach alpha coefficients listed in Table 2): (a) *coordination* – organizing team activities to complete a task on time, (b) *decision making* – using available information to make decisions, (c) *leadership* – providing direction for the team, (d) *interpersonal* – interacting cooperatively with other team members, (e) *adaptability* – recognizing problems and responding appropriately, and (f) *communication* – clear, accurate exchange of information.

Table 2: Cronbach's alpha coefficients for the teamwork skills scales

Subscale	α
Coordination	.702
Decision	.724
Leadership	.839
Interpersonal	.769
Adaptability	.685
Communication	.707
Composite	.924
	(n = 301)

Cronbach alpha numbers for the current study ranged from .685 to .839 on the six dimensions. Since all of the Cronbach values were above .600, the researcher had confidence in moving forward with the appropriate statistical analyses to test the hypotheses.

In a desire to test the quality of the measurement, Cronbach alpha was run to test reliability. One-way analysis of variance (ANOVA) was calculated on each of the six subscales of the Teamwork Skills Questionnaire, as well as the questionnaire's composite score. These procedures were utilized to determine if there is a statistical difference between the comparison groups of varying degrees of leadership education – no leadership coursework, leadership certificate, and degree in Organizational Leadership. Tukey's post-hoc test was run in an effort to determine which groups differed from each other and where the differences

occurred. Tukey is often chosen as the post-hoc method when testing large numbers of means (Field, 2005).

Findings

This section reports results from the data collection process. Demographic information was detailed, as were the findings for each of the three hypotheses in relationship to the study's basic research question. The correlation between the six subscales and the composite score of the instrument was examined, as were the confidence intervals between the three groups. Regression analyses were performed on the subscales and the composite score of the Teamwork Skills Questionnaire on the levels of leadership education.

Demographics

Several demographic variables were collected in conjunction with this research. For gender comparison, males represented 35% (n = 106) of respondents, while 65% (n = 195) were female. When comparing the age of respondents, the ages ranged from 20 years of age to 62 years of age. By far the largest age range was those between 20–29 years of age at 72% (n = 216). When asked for information as to ethnicity, 93% (n = 279) of respondents reported being white or Caucasian, 4% (n = 12) were black or African American, 2% (n = 5) were Hispanic or Latino, .7% (n = 2) were multiracial or biracial American, and .3% (n = 1) was reported for Asian Americans, native Hawaiian or other Pacific Islander and International. No American Indian or Alaska natives participated in this study.

Testing of Hypotheses

The first hypothesis stated that students with no leadership education would report significantly different scores than leadership certificate holders. The second hypothesis stated that students with leadership certificates would report significantly different scores than leadership degree holders. Finally, hypothesis three stated that leadership degree holders would report significantly different scores than those without leadership coursework.

Table 3 reports the means and standard deviations for each of the six subscale scores and the composite score for each subject group. The *coordination* subscale yielded a mean of 3.061 and a standard deviation of .515 in the no leadership coursework group, a mean of 3.213 and a standard deviation of .497 in the leadership certificate group, and a mean of 3.241 and a standard deviation of .430 in the leadership degree group. The *decision-making* subscale yielded a mean of

3.342 and a standard deviation of .413 in the no leadership coursework group, a mean of 3.383 and a standard deviation of .401 in the leadership certificate group, and a mean of 3.518 and a standard deviation of .372 in the leadership degree group. The subscale of *leadership* yielded a mean of 3.134 and a standard deviation of .537 in the no leadership coursework group, a mean of 3.276 and a standard deviation of .495 in the leadership certificate group, and, a mean of 3.410 and a standard deviation of .400 in the leadership degree group.

The mean of the *interpersonal* subscale in the no leadership coursework group was 3.626 with a standard deviation of .351. In this same subscale the leadership certificate group yielded a mean of 3.578 and a standard deviation of .455, while the mean of the leadership degree group was 3.757 and the standard deviation was .279. The mean of the *adaptability* subscale in the no leadership coursework group was 3.219 with a standard deviation of .431. For this same subscale the leadership certificate group yielded a mean of 3.340 and a standard deviation of .406, while the mean of the leadership degree group was 3.431 and a standard deviation .394. The mean of the *communication* subscale in the no leadership coursework group was 3.325 with a standard deviation of .404. In this same subscale the leadership certificate group yielded a mean of 3.390 and a standard deviation of .366, while the mean of the leadership degree group was 3.491 with a standard deviation of .359. The composite scores for the total Teamwork Skills Questionnaire resulted in a mean of 3.290 in the no leadership coursework group and a standard deviation of .357, a mean of 3.362 in the leadership certificate group and a standard deviation of .334, and a mean of 3.471 and a standard deviation of .287 in the leadership degree group.

Table 3: Means and standard deviations reported by the six subscales and the total scale by three subject groups for each subscale and the total scale

Subscale/group	n	mean	s.d.	95% Confidence Interval for Mean	
				Lower Bound	Upper Bound
Coordination					
No coursework	109	3.061	0.515	2.962	3.158
Certificate	90	3.213	0.497	3.109	3.317
Degree	102	3.241	0.430	3.157	3.326
Decision-making					
No coursework	109	3.342	0.413	3.264	3.421
Certificate	90	3.383	0.401	3.299	3.467
Degree	102	3.518	0.372	3.445	3.591
Leadership					
No coursework	109	3.134	0.537	3.032	3.236
Certificate	90	3.276	0.495	3.177	3.380
Degree	102	3.410	0.400	3.331	3.489
Interpersonal					
No coursework	108	3.626	0.351	3.559	3.694
Certificate	90	3.578	0.455	3.482	3.673
Degree	102	3.757	0.279	3.702	3.811
Adaptability					
No coursework	108	3.219	0.431	3.137	3.301
Certificate	90	3.340	0.406	3.255	3.425
Degree	102	3.431	0.394	3.354	3.509
Communication					
No coursework	108	3.325	0.404	3.248	3.403
Certificate	90	3.390	0.366	3.313	3.467
Degree	102	3.491	0.359	3.421	3.562
Composite Score					
No coursework	109	3.290	0.357	3.218	3.354
Certificate	90	3.362	0.334	3.294	3.433
Degree	102	3.471	0.287	3.419	3.531

One-way analysis of variance (ANOVA) was used to test for differences in the mean responses between participants from the three groups. ANOVAs were performed for each of the six dimensions of the Teamwork Skills Questionnaire as well as the composite score. The amount of leadership education was treated as the independent variable while each of the six dimensions and the composite score of the Teamwork Skills Questionnaire were treated as the dependent variables.

Table 4 illustrates the findings of this ANOVA testing. These results are reported for each of the six dimensions as well as for the composite score. There was a significant difference found between groups for each of the six dimensions as well as the composite score of the Teamwork Skills Questionnaire. Criterion for

significance was set at the .05 level. Results for each of the six dimensions were as follows: *coordination* ($F(2, 298) = 4.271, p = .015$), *decision-making* ($F(2, 298) = 5.572, p = .004$), *leadership* ($F(2, 298) = 8.686, p = .001$), *interpersonal* ($F(2, 297) = 6.248, p = .002$), *adaptability* ($F(2, 297) = 7.053, p = .001$) and *communication* ($F(2,297) = 5.143, p = .006$). The composite score of the questionnaire yielded a significant difference ($F(2,297) = 8.757, p = .001$).

Table 4: Analysis of variance (ANOVA) of the Teamwork Skills Questionnaire on the three sample groups

Subscale/group		Sum of Squares	Df	Mean Square	F	Sig.
Coordination	Between Groups	1.990	2	.995	4.271	.015*
	Within Groups	69.411	298	.233		
	Total	71.401	300			
Decision	Between Groups	1.746	2	.873	5.572	.004*
	Within Groups	46.704	298	.157		
	Total	48.450	300			
Leadership	Between Groups	4.029	2	2.014	8.686	.001*
	Within Groups	69.102	298	.232		
	Total		300			
Interpersonal	Between Groups	1.675	2	.838	6.248	.002*
	Within Groups	39.819	297	.134		
	Total	41.494	299			
Adaptability	Between Groups	2.386	2	1.193	7.053	.001*
	Within Groups	50.244	297	.169		
	Total	52.631	299			
Communication	Between Groups	1.469	2	.734	5.143	.006*
	Within Groups	42.401	297	.143		
	Total		299			
Composite	Between Groups	1.879	2	.939	8.757	.001*
	Within Groups	31.865	297	.107		
	Total	33.744	299			

*Significant at the 0.05 level

The significant one-way ANOVAs for each dimension and the composite score indicated that at least one group mean differed from the others; however, this result cannot tell us which groups' means differ significantly. Therefore, follow up post-hoc analysis was conducted.

Hypothesis one stated that students with no leadership education would report significantly different scores than leadership certificate holders. The Tukey (Cronk, 2004) post-hoc analysis was used to assess hypothesis one, with full results reported in Table 5. However, no statistically significant differences were found between any of the dimensions, nor the composite score when comparing the two groups.

Table 5: Tukey post-hoc test

Subscale	Significance (Hyp 1: No Leadership Coursework and Certificate)	Significance (Hyp 2: Certificate and LDRS Degree)	Significance (Hyp 3: No Leadership Coursework and LDRS Degree)
Coordination	.069	.916	.019*
Decision-making	.753	.050*	.004*
Leadership	.096	.134	.001*
Interpersonal	.620	.002*	.029*
Adaptability	.100	.276	.001*
Communication	.450	.154	.004*
Composite Score	.226	.051	.001*

*Significant at the 0.05 level

Hypothesis two stated that students with leadership certificates would report significantly different scores than leadership degree holders. The Tukey post-hoc analysis was again used to assess hypothesis two, with results summarized in Table 5. The significance values ranged from .002 to .916 with criterion for significance set at the .05 level. Although students with leadership degrees reported higher means across all dimensions and the composite score, these differences were only found to be significant for two of the dimensions. First, the dimension of *interpersonal* resulted in a statistically significant difference at .002 with criterion for significance set at the .05 level. Second, the dimension of *decision-making* was statistically significant at .050. Differences between the two groups on the other four dimensions failed to achieve significance at the .05 level: *coordination* at .916, *leadership* at .134, *adaptability* at .276, and *communication* at .154. Finally, the mean difference in the composite scores between the leadership certificate and the leadership degree groups achieved only marginal significance (.051).

Hypothesis three stated that leadership degree holders will report significantly different scores than those without leadership coursework. The Tukey post-hoc analysis was used to assess hypothesis three. As reported in Table 5, leadership degree holders reported higher levels of soft skills across all six dimensions than

did those with no leadership coursework, and these differences were found to be significant at the .05 level for all six dimensions as well as for the Teamwork Skills Questionnaire composite score. Thus, hypothesis three was accepted based on the Tukey results and this supports the value of a leadership degree in comparison to no coursework in leadership education.

Correlations

A follow-up Pearson's correlation was performed between the six individual dimension scores and the composite score of the Teamwork Skills Questionnaire in order to explore the degree of separateness among the dimensions. Table 6 summarizes these correlations. All correlations were statistically significant ($p < .05$). The correlations (r) ranged from .242 to .679. Coefficients of determination (r2) ranged from 5.9% to 46.1%. Eight of the correlations fell in the range of .61 to .68. Three correlations fell in the range of .54 to .59, with four correlations in the range of .24 to .45. Two dimensions produced five inter-correlations in the upper range and these were communication and decision-making. At the lower end, one dimension, interpersonal, produced three inter-correlations in the range of .24 to .37. Three dimensions, adaptability, coordination and leadership produced four correlations in the upper range. Thus, communication and decision-making had the smallest degrees of separation and interpersonal had the largest degree of separation. In total, the researcher concluded that there were reasonable degrees of separation among the six dimension scores.

Table 6: Correlation matrix of Teamwork Skills Questionnaire subscales and composite score

Subscale	Coord	Decis	Lead	Inter	Adapt	Comm	Comp
Coordination	----						
Decision-making	.643*						
Leadership	.628*	.628*					
Interpersonal	.272*	.448*	.242*				
Adaptability	.562*	.679*	.611*	.369*			
Communication	.585*	.637*	.549*	.625*	.646*		
Composite Score	.803*	.855*	.798*	.595*	.820*	.842*	----

*Correlation is significant at the 0.05 level

Recommendations and Implications

The results of this study suggest that the Department of Leadership Studies at this regional university should consider a thorough review of the curriculum with possible program changes. As no significant difference was found in soft skill proficiency between students with no leadership coursework and students with a nine-credit hour leadership certificate, the strength of the leadership certificate must be examined.

Currently, the leadership certificate consists of three courses: a cognitive course, a behavioral course, and a fieldwork course with a heavy service-learning component. Perhaps the leadership certificate should be increased to a 12-credit hour requirement, adding another required course from the Organizational Leadership major. A course in teamwork or teambuilding or a course designed to explore leadership and personal development may also have the potential to increase certificate effectiveness. Additional investigation of the leadership coursework must take place to further identify what course or experience in the program caused specific differences to occur.

Another suggestion for this Department of Leadership Studies would be to encourage students from across all majors to consider adding an Organizational Leadership degree as a second major. Today's employers expect incoming hires to be prepared to immediately interact effectively in diverse teams. Attaching a leadership degree to any other major should help fill this current organizational deficit. From the student recruitment process through their graduation, this point should be made clear to all current and incoming students. This would allow students to decide early in their collegiate experience as to whether the additional cost and time for dual degrees is worth their pursuit.

Finally, this department must actively promote enrollment in their classes from all ethnicities represented on campus. The department should do more to encourage students from all cultures to understand the intended learning outcomes from leadership classes and how these classes may benefit their future employability skills.

Limitations of the Study

Because this study was based on survey research, and was not a true experimental design study, the researcher was not able to manipulate independent variables to make a stronger case for causation. The survey research method used in this study

was based on self-report of respondents. People who self-report their own behaviors may report what reflects positively on their personal knowledge, attitudes, and behaviors (Cook & Campbell, 1979).

Additionally, using only one survey instrument to measure soft skills is limiting. There are elements of soft skill development not measured with this instrument, and there are other instruments which could be used for measurement.

By studying only one university, generalizability to a broader population is difficult. Though there are numerous collegiate leadership development programs throughout higher education, there are few that offer a similar bachelor's degree in Organizational Leadership (Brungardt, et al., 2006). The number of Organizational Leadership degree graduates at this university is relatively small, as the degree program has a relatively short history. Additionally, the sample for this study was not ethnically diverse. This fact should cause one to be cautious in generalizing findings of this study to another population.

Implications for Future Research

There are several implications which can be drawn from this study to enhance future research in the field. These suggestions should prove beneficial to future researchers, which should in turn produce more positive future outcomes for college students and organizations throughout the country.

- Validity is a concern in any research study. Did the instrument and the method measure what you want to know? What other skills might the leadership coursework produce that may not have been measured with this instrument? Given the complexity of the multi-dimensional phenomena known as leadership, future research in leadership education must specifically define the elements of effective leadership growth in order to measure outcomes more accurately.
- This study should be replicated using the same measure, but also collect data from a 360-degree feedback perspective. This data collection would include the graduates' supervisors, peers and direct reports who would all respond to the graduate's performance on the six dimensions.
- Researchers must continue to stress the importance of both the *knowing* and the *doing* in effective leadership development. This will require measurement of learning through experiential pedagogies as well as traditional classroom teaching methods.
- This study should be replicated with the inclusion of one or more forms of qualitative methodology. Though time intensive and complex, qualitative research often illuminates "in radically new ways phenomena as complex

as leadership" (Conger, 1998, p. 107). Though leadership development is difficult to measure, and qualitative research remains relatively rare, the two must be intertwined more readily to allow Leadership Studies to continue to emerge as a recognized academic discipline (Riggio et al., 2003).

- The field of leadership education needs to develop standardized leadership curriculum. Without these standards, measuring leadership growth of graduates in a consistent manner will continue to be difficult (Riggio, et al., 2003).
- Longitudinal studies need to be designed and implemented. Therefore, there needs to be a long-term perspective to much of the future research in the leadership field.
- A strong goal of most leadership education programs is to instill a sense of civic responsibility within their students. The effectiveness of this component should be measured, particularly in future longitudinal studies.
- Future research in leadership studies must include integration of assessment data from multiple universities where similar degrees are offered.

Conclusions

In conclusion, this study was an extension of the rapidly growing body of research in the field of leadership education. As this field is still in its infancy, more research is needed at many levels. Standardized methods of intended learning outcomes, curriculum development and program assessment will be critical in moving this field forward as an accepted academic discipline (Brungardt, et al., 2006; Sorenson, 2000).

This study confirms findings from several previous studies (AACU, 2007; Casner-Lotto & Barrington, 2006; Hart Research Associates, 2006). There is a skills gap in incoming hires in the area of soft skill development, and this gap often proves detrimental to overall success of the organization (Eldredge, 2006). One potential answer to address this gap in needed skills is found in the new emerging academic discipline of leadership studies (Bisoux, 2002; Burns, 1978; Funk, 2006).

This study produced positive results, which further advances the body of knowledge in the field of leadership education. While this study did reveal statistical significant differences, for practical purposes, one would like to see greater differences.

Many believe that one role of higher education is to develop effective organizational members, and that leadership does indeed play an important role in the progress of our organizations, communities and society. As such, it is then imperative that we as leadership scholars continue our efforts to educate for effective leadership.

References

AACSB (2006). *Business and business schools: A partnership for the future.* Report of the AACSB International Alliance for Management Education Task Force. Tampa, FL: Association to Advance Collegiate Schools of Business.

AACU (2002). *Greater expectations: A new vision for learning as a nation goes to college*. Washington, DC: Association of American Colleges and State Universities.

AACU (2007). *College learning for the new global century: Liberal education and America's promise.* Washington, DC: Association of American Colleges and State Universities National Leadership Council.

Ary, D., Jacobs, L., & Razavieh, A. (2002). *Introduction to research in education (*6th ed.). Los Angeles, CA: Wadsworth Group.

Bailey, T. (1997*)*. Changes in the nature of work: Implications for skills and assessment. In H. F. O'Neil, Jr. (Ed.). *Workforce readiness: Competencies and assessment* (pp. 27- 45). Mahwah, NJ: Lawrence Erlbaum Associates.

Bird, C. (1940). *Social psychology*. New York: D. Appleton-Century Company.

Bisoux, T. (2002, September-October). *The mind of a leader*. AACSB International: BizEd, 26-31.

Brungardt, C. L., Greenleaf, J. L., Brungardt, C. J., & Arensforf, J. R. (2006). Majoring in leadership: A review of undergraduate leadership degree programs. *The Journal of Leadership Educators, 5*(1), 4-24.

Burns, J. M. (1978). *Leadership*. New York: Harper & Row.

Carnevale, A., Gainer, L., & Meltzer, A. (1990). *Workplace basics: The essential skills employers want.* Alexandria, VA: American Society for Training and Development.

Casner-Lotto, J., & Barrington, L. (2006). *Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century U.S. workforce.* The Conference Board;

Partnership for 21st Century Skills, Corporate Voices for Working Families, and Society for Human Resource Management.

Cohen, J. (1992). Quantitative methods in psychology: A power primer. *Psychological Bulletin, 112*(1), 155-159.

Conger, J. A. (1998). Qualitative research as the cornerstone methodology for understanding leadership. *Leadership Quarterly, 9*(1), 107-121.

Crawford, C., Brungardt, C., & Maughan, M. (2000). *Understanding Leadership.* Longmont, CO: Rocky Mountain.

Cronk, B. (2004). *How to use SPSS: A step-by-step guide to analysis and interpretation.* Glendale, CA: Pyrczak.

Daft, R. (2002). *The Leadership Experience* (4th ed.), Mason, OH: Thomson South-Western.

Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method.* (2nd ed.). Hoboken, NJ: John Wiley & Sons.

Dwyer, C. A., Millett, C. M., & Payne, D. G. (2006). *A culture of evidence: Postsecondary assessment and learning outcomes – recommendations to policymakers and the higher education community*. Princeton, NJ: Education Testing Service (ETS).

Eich, D. (2003). *Developing foundational undergraduate leadership courses*. Leadership Insights and Applications Series, 17. College Park, MD: National Clearinghouse for Leadership Programs.

Eldredge, B. (2006). *The growing need for soft skills*: *Montana economy at a glance.* Helena, MT: Montana Department of Labor and Industry: Research and Analysis Department.

Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). Thousand Oaks, CA: Sage.

Funk, R. C. (2006). *Evaluation of an academic program of leadership education.* Unpublished doctoral dissertation, Kansas State University, Manhattan.

Gall, M., Gall, J., & Borg, W. (2003). *Educational research: An introduction* (7th ed.). Boston: Allen and Bacon.

GMAC (2004). Summary of Corporate Recruiters Survey Report: Graduate Management Admission Council. Retrieved October 27, 2006, from http://www.gmac.com/ResearchandTrends/Tools/CorpRec2003-2004Execsum.htm.

Hart Research Associates (2006). *How should colleges prepare students to succeed in today's global economy?* Conducted on behalf of the Association of American Colleges and Universities. Washington, DC: Peter D. Hart Research Associates.

Learning and Skills Council (2006). *National employers skills survey 2005*: *Key findings.* Coventry, UK: LSC.

Mangan, K. S. (2002). Leading the way in leadership: The unending quest of the discipline's founding father. *Chronicle of Higher Education, 48*(38), A10-A12.

O'Neil, H. F., Chung, K. W., & Brown, R. S. (1997). Review of workforce readiness theoretical frameworks. In H. F. O'Neil, Jr. (Ed.), *Workforce Readiness: Competencies and assessment* (pp. 411-413). Mahwah, NJ: Lawrence Erlbaum Associates.

O'Neil, H. F., Jr., Lee, C., Wang, S., & Mulkey, J. (1999, March). *Final report for analysis of teamwork skills questionnaire*. Sherman Oaks, CA: Advanced Design Information.

Overtoom, C. (2000). *Employability skills: An update.* (ERIC Document Reproduction Service, No. ED 220). Columbus: ERIC Clearinghouse on Adult, Career, and Vocational Education, the Ohio State University, 2000. (ED 445 2356) http://www.ericacve.org/digests.asp.

Packer, A. (1998). The end of routine work and the need for a career transcript. Paper presented at the *Hudson Institute's Workforce 2020 Conference*, Indianapolis, IN: 1998.

Riggio, R., Ciulla, J., & Sorenson, G. (2003). Leadership education at the undergraduate level: A liberal arts approach to leadership development. In S. E. Murphy & R. E. Riggio (Eds.). *The future of leadership development* (pp. 223-236). Mahwah, NJ: Lawrence Erlbaum Associates.

Schinn, S. (2003, September-October). *Intelligence @ work*. AACSB
	International: BizEd, 19-23.

Smith, G. (2005). Communication skills are critical for internal auditors.
	Managerial Auditing Journal. 20(5), 513-519.

Sorenson, G. (2000). *An intellectual history of leadership studies: The role of
	James MacGregor Burns.* Washington, DC: American Political Science
	Association, 5.

Stogdill, R. M. (1948). Personal factors associated with leadership: A review of
	the literature. *Journal of Psychology, 25*, 35-71.

Stogdill, R. M. (1974). *Handbook of leadership* (3rd ed.). New York: Free Press.

U.S. Department of Education (2006). *A test of leadership: Charting the future of
	U.S. higher education.* Washington, DC: U.S. Government Printing
	Office.

Wilhelm, W. (2002). Research on workplace skills employers want. In *Meeting
	the Demand: Teaching "Soft" Skills* by Wilhelm, Logan, Smith, and Suzl.
	Little Rock, AR: Delta Pi Epsilon.

Author Biography

Christie Brungardt is an Instructor in the Department of Leadership Studies at Fort Hays State University. In addition to teaching courses in leadership studies, she is the director of the FHSU Women's Leadership Project and the statewide Kansas Women's Leadership Conference.