

## **Perceptions of Outside Stakeholders: How Important Are Leadership Skills?**

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### **Abstract**

*This study sought to describe the importance of 25 personal leadership skills and 23 interpersonal and team leadership skills as perceived by two outside university stakeholder groups: recent graduates and business and industry representatives. Recent graduates perceived both personal and interpersonal and team leadership skills to be important. At least three quarters of the recent graduates rated all 25 personal leadership skills and 19 of the 23 interpersonal and team leadership skills as important or very important and over half rated 13 of the 25 personal leadership skills and 5 of the 23 interpersonal and team leadership skills as very important. Business and industry representatives were slightly less convinced of the importance of each skill. At least three quarters of the business and industry representative participants rated 20 of the 25 personal leadership skills and 17 of the 23 interpersonal and team leadership skills as important or very important and over half rated nine of the 25 personal leadership skills and six of the 23 interpersonal and team leadership skills as very important. The perceptions of the two groups were relatively consistent as to which skills were most and least important.*

### **Introduction**

Possessing the skills needed to enter the workforce is the key to college graduates obtaining employment and succeeding in their future careers. Individuals with leadership skills are becoming highly sought after by employers (Morgan, Rudd, & Kaufman, 2004). Within the last 15 years, more agricultural employers have reported a need for effective leaders to aid in meeting the goals and objectives of their organization. Realistically, organizations are looking for college graduates that are leaders and can take the company to the next level. Companies across America are finding it difficult to fill such leadership positions because of a “crisis of leadership” (Wren, 1994).

Numerous studies have documented that while employers view technical skills as important, interpersonal skills, such as leadership skills, were of more importance (Litzenberg & Schneider, 1987; Maricle, 2003). In a study conducted by the National Association of Colleges and Employers (2002), researchers asked employers what skills they desired from new graduates. Of the top seven skills identified, six were leadership related. These skills were: interpersonal, teamwork, verbal communication, analytical, written communication, and leadership. The same study asked employers the personal qualities they seek in an employee. The top personal qualities included: communication skills, motivation/initiative, teamwork skills, leadership skills, academic achievement/GPA, interpersonal skills, flexibility/adaptability, technical skills, honesty/integrity, work ethic, and analytical/problem-solving skills.

Employers are realizing that even though they often require college degrees for individuals to be employed in leadership positions, these employees are missing the characteristics and abilities of leadership (McKinley, Birkenholz, & Stewart, 1993). According to Fritz and Brown (1998) many college graduates are ineffective leaders. Fritz and Brown suggested that this leadership void is caused by the lack of formal leadership training. Representatives from agricultural businesses have voiced their support of leadership skills development classes for prospective employees (Aldrich, 1988). Yet, organizations continue to spend money to send employees to leadership training or bringing professionals into the company to train their employees (Yukl, 2002).

Included in the mission and goals of the College of Agricultural and Life Sciences (CALs) at a land-grant university in the Northwest is:

To support economic growth and enhance the quality of life for the people of Idaho by:

- Preparing students to be innovative leaders in a global society;
- Helping people improve their lives through research based education and leadership development focused on issues and needs; and
- Providing new knowledge to support agriculture and enhance the understanding of natural and human resources (CALs, 2003)

Community and leadership development was also identified by CALs as one of the six areas for major program emphasis within the college (CALs, 2003). Despite a commitment to leadership development in its mission and an emphasis area in community and leadership development, the college has yet to offer a comprehensive leadership education program for undergraduates. With this in mind, it is essential that the CALs community and its stakeholders begin identifying leadership development needs of students in the college in order for the college to implement strategies designed to ensure that graduates possess all of the skills, not just the technical competencies, that their future employers are seeking when they hire employees.

### **Theoretical Framework**

The Development Pipeline™ is a systematic framework for designing and evaluating leadership development programs based on the works of Peterson and Hicks (1995, 1996), Peterson (2001), and Campbell (1988) (as cited in Hughes, Ginnett, & Curphy, 2002). The Development Pipeline™ was copyrighted in 1998 by Personal Decisions International Corporation and consists of six sections: (1) Determine Training Content, (2) Provide Insight, (3) Enhance Motivation Levels, (4) Provide Training on New Knowledge and Skills, (5) Practice New Skills, and (6) Hold People Accountable for Learning. Because course content and objectives should be based on the needs of the organization (Hughes, Ginnett, & Curphy, 2002), this study focused on the first of the six sections of the Development Pipeline™ by determining the importance of leadership skills according to stakeholders.

### **Purposes and Objectives**

This study, conducted as part of a larger study, sought to identify the leadership development needs of students in the College of Agricultural and Life Sciences (CALs) at a land-grant university in the Northwest according to the perceptions of recent CALs graduates and business and industry representatives. The specific research objectives of this study were to:

1. Describe recent graduates and business and industry leaders in terms of selected demographics.
2. Describe the importance of leadership skills as perceived by recent CALS graduates.
3. Describe the importance of leadership skills as perceived by business and industry representatives.
4. Assess the similarities and differences in the importance of leadership skills as perceived by recent CALS graduates and business and industry representatives.

## **Methods and Procedures**

### *Population and Sample*

The population for this study consisted of two groups: bachelors' degree recipients of CALS who graduated within the last five years and business and industry representatives who employ graduates of the university. Recent graduates were defined as those students who received a bachelor's degree from the College of Agricultural and Life Sciences within the past five years (Spring 2002-Fall 2006). A current list of graduates was obtained from the Alumni Office. A total of 496 graduates were identified and included in the population frame for this study. Responses were obtained from 120 of the 496 recent graduates for a total response rate of 24.6 %. Business and industry representatives were identified through the academic departments within the college using department advisory committees. Each department has an advisory committee that includes business and industry representatives who have a vested interest in undergraduate education at the college level. A total of 27 business and industry representatives were identified and included in the population frame for this study. Responses were obtained from 14 of the 27 business and industry representatives for a total response rate of 51.9%.

### *Instrumentation*

Two variations of a single researcher-developed instrument, *Leadership Competencies in the College of Agricultural and Life Sciences*, were used to collect data collected from the two population groups in this study. Each version differed slightly based on the perspective from which participants were asked to respond. For example, recent graduates were asked to respond based on how they saw themselves when they graduated and business and industry representatives were asked to respond based on how they view CALS graduates at the time they hired them, especially those they hired immediately after graduation.

The instrument was based on a review of literature (Maricle, Fritz, & Moody, 2003; Morgan, Rudd, & Kaufman, 2004) and consisted of five parts. Part one gathered data related to perceptions towards the importance of and proficiency level of graduates in 25 Personal Leadership Skills. Part two gathered data related towards the importance of and proficiency level of graduates in 23 Interpersonal and Team Leadership Skills. Part three of the instrument gathered data related to the importance of and opportunity to participate in collegiate organizations but data were not analyzed and included in this study. Part four of the instrument gathered demographic information about the participants. In the recent graduate version of the instrument, this included data such as gender, ethnicity, age, current occupation, years employed with current employer, degree(s) earned and the year, major and institution, semester they

graduated, leadership courses enrolled in at the university, and how prepared they felt they were to be a successful leaders after graduation. In the business and industry version of the instrument, this included data such as gender, ethnicity, age, degree(s) earned, current occupation, number of CALS graduates they have hired within the past five years, were leadership qualities important in order to advance in their company, and if they felt that students from CALS are prepared to be successful leaders. Part five of the instrument included an open ended question that gave participants the opportunity to add additional comments not addressed in the instrument. After development, the instrument was evaluated by a panel of experts for content and face validity.

### *Data Collection and Analysis*

The two versions of the instrument were administered via a web-based survey. The first page of the survey included informed consent information such as a description of the study, the voluntary nature of the study, risks of participation, and the fact that there would be no compensation for participation. By clicking the “next” button to enter the survey, participants gave their consent to participate in the study.

Responses were collected through the use of the web-based instruments following the Tailored Design Method by Dillman (2000). Up to five contacts were made for each participant. Each participant was assigned an identification code in surveymonkey.com. When responses were received, participants were removed from the database for future contacts. In this study, nonresponse error was addressed by comparing early responders to late responders for statistical differences (Ary, Jacobs, & Razawieh, 1996; Lindner, Murphy, & Briers, 2001; Miller & Smith, 1983). Late responders were defined as the later 50% of the respondents of the instrument (Lindner et al.). Analysis revealed no statistical differences in data obtained from the early responders as compared to the late responders.

Data was analyzed using SPSS<sup>®</sup> for Windows<sup>™</sup>. Cronbach's alpha was calculated for the importance of the personal and interpersonal and team leadership skills. Cronbach's alpha is appropriate for estimating internal-consistency reliability within a scale in Likert format (Isaac & Michael, 1995). Cronbach's alpha for each skill area as perceived by outside stakeholder participants were:  $\alpha=.92$  for Personal Leadership Skills and  $\alpha=.94$  for Interpersonal and Team Leadership Skills. Descriptive statistics such as frequencies, percentages, and Friedman's Mean Rank (FMR) were also used. FMR, a non-parametric rank-based procedure similar to analysis of variance, was used to more accurately describe the ordinal scales used in this study.

## **Results/Findings**

The first objective was to describe each of the two population groups in terms of selected demographics. Findings of this objective are discussed by population group below.

### *Recent Graduates*

Of the 104 recent graduates of the College of Agricultural and Life Sciences who responded to the demographic question about gender (16 did not respond), slightly less than three-fourths (73.08%,  $n=76$ ) were female and 26.92% ( $n=28$ ) were male. The mean age was

27.05 years old with a minimum of 22 years old and a maximum of 52 years old. Almost all ( $n=99$ , 95.19%) were white, while one (0.96%) was American Indian or Alaska Native, one (0.96%) was Asian, one (0.96%) reported black or African American, one (0.96%) was Hispanic or Latino, and one (0.96%) reported an ethnicity of "mixed." In terms of year of graduation, 7.69% ( $n=8$ ) graduated in Fall 2005, 19.23% ( $n=20$ ) graduated in Spring 2006, 16.35% ( $n=17$ ) graduated in Spring 2005, 3.85% ( $n=4$ ) graduated in Fall 2004, 16.35% ( $n=17$ ) graduated in Spring 2004, 6.73% ( $n=7$ ) graduated in Fall 2003, 12.50% ( $n=13$ ) graduated in Spring 2003, 1.92% ( $n=2$ ) graduated in Fall 2002, 8.65% ( $n=9$ ) graduated in Spring 2002, and 6.73% ( $n=7$ ) reported other.

### *Business and Industry Representative*

Of the 14 business and industry representatives who responded to the demographic questions, 64.29% ( $n=9$ ) were female and 35.71% ( $n=5$ ) were male. The mean age was 47.38 years old with a minimum of 28.0 years old and a maximum of 58.0 years old. Almost all ( $n=13$ , 92.86%) were white, while one (7.14%) was Hispanic or Latino. Of the 13 who responded about occupation, two (15.38%) were extension educators, two (15.38%) were in education, one (7.69%) was a small business owner, one (7.69%) was a radiological health manager, one (7.69%) was a farmer/consultant, one (7.69%) was a public health intuitionist, one (7.69%) was an office manager, one (7.69%) was a senior appraiser, one (7.69%) was a director of an agency on aging, one (7.69%) was a community development manager, and one (7.69%) was an executive director. The mean years of service in their current occupation was 15.3 years with a minimum of one month and a maximum of 30 plus years. Of the 13 business and industry representatives who responded to the question on whether they have hired CALS graduates within the last five years, over half ( $n=8$ , 61.54%) reported yes and 38.46% ( $n=5$ ) reported no.

The second objective of the study sought to identify the leadership development needs of CALS students as perceived by recent graduates from the college. The recent graduates rated 25 personal leadership skills according to how important the skills are in order for them to succeed in their careers (see Table 1). Recent graduates ranked Demonstrate problem solving skills (FMR=16.51) highest in terms of needing the skill to succeed in their career, followed by Accept responsibility (FMR=16.19); Communicate effectively (FMR=15.99); Manage time (FMR=15.73); Be self-directed/self-motivated (FMR=15.40); Be accountable (FMR=15.35); Demonstrate conflict management skills (FMR=15.18); Make ethical decisions (FMR=14.77); Lead by example (FMR=14.68); Maintain a positive work attitude (FMR=13.82); Carry out instructions (FMR=13.53); Create and set goals (FMR=13.50); Listen actively (FMR=13.50); Develop and express critical thinking skills (FMR=13.25); Recognize and manage stress (FMR=13.25); Express written ideas clearly (FMR=12.36); Focus on the task at hand (FMR=12.00); Welcome change (FMR=11.16); Understand personality and/or learning styles (FMR=11.14); Understand leadership strengths and weaknesses (FMR=11.01); Evaluate risk (FMR=10.83); Understand personal leadership (FMR=10.53); Define leadership (FMR=10.27); Demonstrate visioning skills (FMR=7.70); and Integrate leadership theory with critical issues in agriculture (FMR=7.34).

Recent graduates rated 23 interpersonal and team leadership skills according to how important the skills are in order for them to succeed in their career (see Table 2). Recent

graduates ranked Treat others with respect, trust, and dignity (FMR=16.28) the highest, followed by Work in a team as well as lead (FMR=14.48); Communicate openly and be seen as approachable and open to new ideas (FMR=14.36); Build trust and have confidence in others

Table 1.  
*Graduates' perceptions of the importance of personal leadership skills*

|  | FMR   | Rank | Not Important |     | Little Importance |     | Somewhat Important |      | Very Important |      |    |      |
|--|-------|------|---------------|-----|-------------------|-----|--------------------|------|----------------|------|----|------|
|  |       |      | <i>f</i>      | %   | <i>f</i>          | %   | <i>f</i>           | %    | <i>f</i>       | %    |    |      |
| Demonstrate problem solving skills <sup>c</sup>            | 16.51 | 1    | 0             | 0.0 | 0                 | 0.0 | 2                  | 1.7  | 28             | 23.3 | 90 | 75.0 |
| Accept responsibility <sup>b</sup>                         | 16.19 | 2    | 0             | 0.0 | 0                 | 0.0 | 2                  | 1.7  | 35             | 29.4 | 82 | 68.9 |
| Communicate effectively <sup>c</sup>                       | 15.99 | 3    | 0             | 0.0 | 0                 | 0.0 | 3                  | 2.5  | 33             | 27.5 | 84 | 70.0 |
| Manage time <sup>c</sup>                                   | 15.73 | 4    | 0             | 0.0 | 0                 | 0.0 | 4                  | 3.3  | 36             | 30.0 | 80 | 66.7 |
| Be self-directed/self-motivated <sup>c</sup>               | 15.40 | 5    | 0             | 0.0 | 0                 | 0.0 | 6                  | 5.0  | 34             | 28.3 | 80 | 66.7 |
| Be accountable <sup>c</sup>                                | 15.35 | 6    | 0             | 0.0 | 0                 | 0.0 | 4                  | 3.3  | 38             | 31.7 | 78 | 65.0 |
| Demonstrate conflict management skills <sup>c</sup>        | 15.18 | 7    | 0             | 0.0 | 0                 | 0.0 | 7                  | 5.8  | 37             | 30.8 | 76 | 63.3 |
| Make ethical decisions <sup>b</sup>                        | 14.77 | 8    | 0             | 0.0 | 1                 | 0.8 | 6                  | 5.0  | 38             | 31.9 | 74 | 62.2 |
| Lead by example <sup>c</sup>                               | 14.68 | 9    | 0             | 0.0 | 0                 | 0.0 | 7                  | 5.9  | 41             | 34.5 | 71 | 59.7 |
| Maintain a positive work attitude <sup>c</sup>             | 13.82 | 10   | 0             | 0.0 | 0                 | 0.0 | 9                  | 7.5  | 46             | 38.3 | 65 | 54.2 |
| Carry out instructions <sup>c</sup>                        | 13.53 | 11   | 0             | 0.0 | 0                 | 0.0 | 6                  | 5.0  | 55             | 45.8 | 59 | 49.2 |
| Create and set goals <sup>c</sup>                          | 13.50 | 12   | 0             | 0.0 | 0                 | 0.0 | 8                  | 6.7  | 52             | 43.3 | 60 | 50.0 |
| Listen actively <sup>c</sup>                               | 13.50 | 12   | 0             | 0.0 | 0                 | 0.0 | 10                 | 8.3  | 50             | 41.7 | 60 | 50.0 |
| Develop and express critical thinking skills <sup>c</sup>  | 13.25 | 14   | 0             | 0.0 | 0                 | 0.0 | 10                 | 8.3  | 54             | 45.0 | 56 | 46.7 |
| Recognize and manage stress <sup>c</sup>                   | 13.25 | 14   | 0             | 0.0 | 0                 | 0.0 | 14                 | 11.7 | 45             | 37.5 | 61 | 50.8 |
| Express written ideas clearly <sup>c</sup>                 | 12.36 | 16   | 0             | 0.0 | 1                 | 0.8 | 13                 | 10.8 | 55             | 45.8 | 51 | 42.5 |
| Focus on the task at hand <sup>c</sup>                     | 12.00 | 17   | 0             | 0.0 | 0                 | 0.0 | 14                 | 11.7 | 58             | 48.3 | 48 | 40.0 |
| Welcome change <sup>c</sup>                                | 11.16 | 18   | 0             | 0.0 | 3                 | 2.5 | 21                 | 17.5 | 48             | 40.0 | 48 | 40.0 |
| Understand personality and/or learning styles <sup>c</sup> | 11.14 | 19   | 0             | 0.0 | 4                 | 3.3 | 15                 | 12.5 | 57             | 47.5 | 44 | 36.7 |
| Understand leadership strengths & weaknesses <sup>c</sup>  | 11.01 | 20   | 0             | 0.0 | 4                 | 3.3 | 20                 | 16.7 | 53             | 44.2 | 43 | 35.8 |
| Evaluate risk <sup>b</sup>                                 | 10.83 | 21   | 0             | 0.0 | 1                 | 0.8 | 22                 | 18.5 | 57             | 47.9 | 39 | 32.8 |
| Understand personal leadership <sup>c</sup>                | 10.53 | 22   | 0             | 0.0 | 2                 | 1.7 | 26                 | 21.7 | 50             | 41.7 | 42 | 35.0 |
| Define leadership <sup>c</sup>                             | 10.27 | 23   | 3             | 2.5 | 5                 | 4.2 | 20                 | 16.7 | 51             | 42.5 | 41 | 34.2 |
| Demonstrate visioning skills <sup>a</sup>                  | 7.70  | 24   | 0             | 0.0 | 6                 | 5.1 | 32                 | 27.1 | 60             | 50.8 | 20 | 16.9 |
| Integrate leadership theory with critical issues in ag     | 7.34  | 25   | 6             | 5.0 | 11                | 9.2 | 31                 | 25.8 | 52             | 43.3 | 20 | 16.7 |

<sup>a</sup>*n* = 118. <sup>b</sup>*n* = 119. <sup>c</sup>*n* = 120.

Table 2.  
*Graduates' perceptions of the importance of interpersonal and team leadership skills*

|   | FMR   | Rank | Not Important |     | Little Importance |     | Somewhat Important |      | Very Important |      |    |      |
|---|-------|------|---------------|-----|-------------------|-----|--------------------|------|----------------|------|----|------|
|   |       |      | <i>f</i>      | %   | <i>f</i>          | %   | <i>f</i>           | %    | <i>f</i>       | %    |    |      |
| Treat others with respect, trust, and dignity <sup>b</sup>                            | 16.28 | 1    | 0             | 0.0 | 0                 | 0.0 | 4                  | 3.7  | 25             | 23.1 | 79 | 73.1 |
| Work in a team as well as lead <sup>b</sup>   | 14.48 | 2    | 0             | 0.0 | 1                 | 0.9 | 5                  | 4.6  | 44             | 40.7 | 58 | 53.7 |
| Communicate openly and be seen as approachable and open to new ideas <sup>b</sup>     | 14.36 | 3    | 0             | 0.0 | 0                 | 0.0 | 7                  | 6.5  | 42             | 38.9 | 59 | 54.6 |
| Build trust and have confidence in others <sup>b</sup>                                | 13.69 | 4    | 0             | 0.0 | 1                 | 0.9 | 9                  | 8.3  | 45             | 41.7 | 53 | 49.1 |
| Organize resources to accomplish maximum efficiency <sup>a</sup>                      | 13.67 | 5    | 0             | 0.0 | 0                 | 0.0 | 9                  | 8.4  | 44             | 41.1 | 54 | 50.5 |
| Encourage others <sup>b</sup>   | 13.32 | 6    | 0             | 0.0 | 1                 | 0.9 | 14                 | 13.0 | 39             | 36.1 | 54 | 50.0 |
| Lead groups towards achieving the goal of the group <sup>b</sup>                      | 12.92 | 7    | 0             | 0.0 | 0                 | 0.0 | 9                  | 8.3  | 56             | 51.9 | 43 | 39.8 |
| Delegate effectively <sup>b</sup>   | 12.80 | 8    | 0             | 0.0 | 0                 | 0.0 | 13                 | 12.0 | 46             | 42.6 | 49 | 45.5 |
| Recognize others for their contributions <sup>b</sup>                                 | 12.49 | 9    | 0             | 0.0 | 1                 | 0.9 | 11                 | 10.2 | 55             | 50.9 | 41 | 38.0 |
| Attract, develop & retain talented individuals <sup>b</sup>                           | 12.42 | 10   | 1             | 0.9 | 2                 | 1.9 | 13                 | 12.0 | 45             | 41.7 | 47 | 43.5 |
| Supervise others/be a team leader <sup>b</sup>  | 12.21 | 11   | 0             | 0.0 | 1                 | 0.9 | 13                 | 12.0 | 53             | 49.1 | 41 | 38.0 |
| Be considerate of the needs and feelings of each individual in the group <sup>b</sup> | 11.97 | 12   | 0             | 0.0 | 2                 | 1.9 | 19                 | 17.6 | 44             | 40.7 | 43 | 39.8 |
| Contribute ideas to a group <sup>a</sup>  | 11.78 | 13   | 0             | 0.0 | 2                 | 1.9 | 14                 | 13.1 | 53             | 49.5 | 38 | 35.5 |
| Identify strengths and weaknesses of others <sup>b</sup>                              | 11.44 | 14   | 1             | 0.9 | 3                 | 2.8 | 18                 | 16.7 | 46             | 42.6 | 40 | 37.0 |
| Manage and respect others' time <sup>b</sup>  | 11.08 | 15   | 1             | 0.9 | 0                 | 0.0 | 22                 | 20.4 | 55             | 46.3 | 35 | 32.4 |
| Value diversity <sup>b</sup>  | 11.00 | 16   | 4             | 3.7 | 2                 | 1.9 | 19                 | 17.6 | 44             | 40.7 | 39 | 36.1 |
| Foster relationships <sup>b</sup>   | 10.89 | 17   | 1             | 0.9 | 2                 | 1.9 | 23                 | 21.3 | 42             | 38.9 | 40 | 37.0 |
| Understand group dynamics <sup>b</sup>  | 10.87 | 18   | 0             | 0.0 | 1                 | 0.9 | 23                 | 21.3 | 50             | 46.3 | 34 | 31.5 |
| Enable others <sup>b</sup>  | 10.73 | 19   | 0             | 0.0 | 2                 | 1.9 | 20                 | 18.5 | 54             | 50.0 | 32 | 29.6 |
| Develop the leadership potential of others <sup>b</sup>                               | 10.48 | 20   | 0             | 0.0 | 4                 | 3.7 | 26                 | 24.1 | 43             | 39.8 | 35 | 32.4 |
| Practice team building skills <sup>b</sup>  | 9.86  | 21   | 2             | 1.9 | 4                 | 3.7 | 25                 | 23.1 | 48             | 44.4 | 29 | 26.9 |
| Inspire, empower and exercise authority <sup>b</sup>                                  | 9.12  | 22   | 2             | 1.9 | 10                | 9.3 | 24                 | 22.2 | 45             | 41.7 | 27 | 25.0 |
| Take control <sup>b</sup>   | 8.16  | 23   | 2             | 1.9 | 8                 | 7.4 | 32                 | 29.6 | 46             | 42.6 | 20 | 18.5 |

<sup>a</sup>*n* = 107.

(FMR=13.69); Organize resources to accomplish maximum efficiency (FMR=13.67); Encourage others (FMR=13.32); Lead groups towards achieving the goal of the group (FMR=12.92); Delegate effectively (FMR=12.80); Recognize others for their contributions (FMR=12.49); Attract, develop and retain talented individuals (FMR=12.42); Supervise others/be a team leader (FMR=12.21); Be considerate of the needs and feelings of each individual in the group (FMR=11.97); Contribute ideas to a group (FMR=11.78); Identify strengths and weaknesses of others (FMR=11.44); Manage and respect others' time (FMR=11.08); Value diversity (FMR=11.00); Foster relationships (FMR=10.89); Understand group dynamics (FMR=10.87); Enable others (FMR=10.73); Develop the leadership potential of others (FMR=10.48); Practice team building skills (FMR=9.86); Inspire, empower and exercise authority (FMR=9.12); and Take control (FMR=8.16).

The third objective sought to identify the leadership development needs of CALS students as perceived by business and industry representatives. Business and industry representatives rated 25 personal leadership skills according to how important the skills are in order for students to succeed in their future career (see Table 3). Business and industry representatives ranked the Accept responsibility skill (FMR=19.21) the highest, followed by Demonstrate problem solving skills (FMR=18.08); Communicate effectively (FMR=17.67); Create and set goals (FMR=16.79); Be accountable (FMR=16.75); Make ethical decisions (FMR=15.33); Listen actively (FMR=14.46); Manage time (FMR=14.21); Be self-directed/self-motivated (FMR=13.96); Express written ideas clearly (FMR=13.63); Demonstrate conflict management skills (FMR=13.54); Recognize and manage stress (FMR=13.13); Lead by example (FMR=12.96); Maintain a positive work attitude (FMR=12.83); Develop and express critical thinking skills (FMR=12.33); Welcome change (FMR=11.88); Carry out instructions (FMR=11.67); Define leadership (FMR=11.21); Understand personal leadership (FMR=10.83); Evaluate risk (FMR=10.25); Understand leadership strengths and weaknesses (FMR=10.08); Integrate leadership theory with critical issues in agriculture (FMR=9.83); Demonstrate visioning skills (FMR=9.58); Focus on the task at hand (FMR=7.88); and lastly Understand personality and/or learning styles (FMR=6.92).

Business and industry representatives rated 23 interpersonal and team leadership skills according to how important the skills are in order for students to succeed in their future career (see Table 4). They ranked the Treat others with respect, trust, and dignity skill (FMR=17.36) the highest, followed by Communicate openly and be seen as approachable and open to new ideas (FMR=16.50); Work in a team as well as lead (FMR=15.71); Build trust and have confidence in others (FMR=15.29); Foster relationships (FMR=15.25); Attract, develop and retain talented individuals (FMR=13.54); Organize resources to accomplish maximum efficiency (FMR=13.11); Lead groups towards achieving the goal of the group (FMR=13.11); Manage and respect others' time (FMR=12.43); Recognize others for their contributions (FMR=12.14); Practice team building skills (FMR=12.11); Contribute ideas to a group (FMR=12.07); Delegate effectively (FMR=11.79); Supervise others/be a team leader (FMR=10.82); Be considerate of the needs and feelings of each individual in the group (FMR=10.68); Understand group dynamics (FMR=10.39); Value diversity (FMR=10.21); Encourage others (FMR=10.07); Identify strengths and weaknesses of others (FMR=10.04); Develop the leadership potential of others (FMR=9.71); Inspire, empower and exercise authority (FMR=9.54); Enable others (FMR=8.43); and lastly Take control (FMR=5.71).

Table 3.  
*Business and Industry perceptions of the importance of personal leadership skills*

|   | FMR   | Rank | Not Important |     | Little Importance |      | Somewhat Important |      | Important |      | Very Important |      |
|---|-------|------|---------------|-----|-------------------|------|--------------------|------|-----------|------|----------------|------|
|   |       |      | <i>f</i>      | %   | <i>f</i>          | %    | <i>f</i>           | %    | <i>f</i>  | %    | <i>f</i>       | %    |
| Accept responsibility <sup>b</sup>                                  | 19.21 | 1    | 0             | 0.0 | 0                 | 0.0  | 0                  | 0.0  | 1         | 7.1  | 13             | 92.9 |
| Demonstrate problem solving skills <sup>b</sup>                     | 18.08 | 2    | 0             | 0.0 | 0                 | 0.0  | 0                  | 0.0  | 3         | 21.4 | 11             | 78.6 |
| Communicate effectively <sup>b</sup>                                | 17.67 | 3    | 0             | 0.0 | 0                 | 0.0  | 0                  | 0.0  | 4         | 28.6 | 10             | 71.4 |
| Create and set goals <sup>b</sup>                                   | 16.79 | 4    | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 2         | 14.3 | 11             | 78.6 |
| Be accountable <sup>b</sup>   | 16.75 | 5    | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 2         | 14.3 | 11             | 78.6 |
| Make ethical decisions <sup>b</sup>                                 | 15.33 | 6    | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 4         | 28.6 | 9              | 64.3 |
| Listen actively <sup>b</sup>  | 14.46 | 7    | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 6         | 42.9 | 7              | 50.0 |
| Manage time <sup>b</sup>  | 14.21 | 8    | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 5         | 35.7 | 8              | 57.1 |
| Be self-directed/self-motivated <sup>b</sup>                        | 13.96 | 9    | 0             | 0.0 | 0                 | 0.0  | 3                  | 21.4 | 2         | 14.3 | 9              | 64.3 |
| Express written ideas clearly <sup>b</sup>                          | 13.63 | 10   | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 7         | 50.0 | 6              | 42.9 |
| Demonstrate conflict management skills <sup>a</sup>                 | 13.54 | 11   | 0             | 0.0 | 0                 | 0.0  | 0                  | 0.0  | 8         | 61.5 | 5              | 38.5 |
| Recognize and manage stress <sup>b</sup>                            | 13.13 | 12   | 0             | 0.0 | 0                 | 0.0  | 2                  | 14.3 | 5         | 35.7 | 7              | 50.0 |
| Lead by example <sup>b</sup>  | 12.96 | 13   | 0             | 0.0 | 0                 | 0.0  | 2                  | 14.3 | 6         | 42.9 | 6              | 42.9 |
| Maintain a positive work attitude <sup>b</sup>                      | 12.83 | 14   | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 8         | 57.1 | 5              | 35.7 |
| Develop and express critical thinking skills <sup>a</sup>           | 12.33 | 15   | 0             | 0.0 | 0                 | 0.0  | 4                  | 30.8 | 3         | 23.1 | 6              | 46.2 |
| Welcome change <sup>b</sup>   | 11.88 | 16   | 0             | 0.0 | 0                 | 0.0  | 3                  | 21.4 | 5         | 35.7 | 6              | 42.9 |
| Carry out instructions <sup>b</sup>                                 | 11.67 | 17   | 0             | 0.0 | 0                 | 0.0  | 1                  | 7.1  | 8         | 57.1 | 5              | 35.7 |
| Define leadership <sup>b</sup>                                      | 11.21 | 18   | 0             | 0.0 | 1                 | 7.1  | 2                  | 14.3 | 6         | 42.9 | 5              | 35.7 |
| Understand personal leadership <sup>b</sup>                         | 10.83 | 19   | 0             | 0.0 | 0                 | 0.0  | 3                  | 21.4 | 7         | 50.0 | 4              | 28.6 |
| Evaluate risk <sup>b</sup>  | 10.25 | 20   | 0             | 0.0 | 0                 | 0.0  | 3                  | 21.4 | 8         | 57.1 | 3              | 21.4 |
| Understand leadership strengths & weaknesses <sup>b</sup>           | 10.08 | 21   | 0             | 0.0 | 0                 | 0.0  | 3                  | 21.4 | 7         | 50.0 | 4              | 28.6 |
| Integrate leadership theory with critical issues in ag <sup>b</sup> | 9.83  | 22   | 0             | 0.0 | 0                 | 0.0  | 5                  | 35.7 | 6         | 42.9 | 3              | 21.4 |
| Demonstrate visioning skills <sup>b</sup>                           | 9.58  | 23   | 0             | 0.0 | 0                 | 0.0  | 5                  | 35.7 | 6         | 42.9 | 3              | 21.4 |
| Focus on the task at hand <sup>b</sup>                              | 7.88  | 24   | 0             | 0.0 | 1                 | 7.1  | 3                  | 21.4 | 8         | 57.1 | 2              | 14.3 |
| Understand personality and/or learning styles <sup>b</sup>          | 6.92  | 25   | 0             | 0.0 | 2                 | 14.3 | 4                  | 28.6 | 6         | 42.9 | 2              | 14.3 |

<sup>a</sup>*n* = 13. <sup>b</sup>*n* = 14.

Table 4.

*Business and industries perceptions of the importance of interpersonal and team leadership skills*

|   | FMR   | Rank | Not Important |     | Little Importance |     | Somewhat Important |      | Important |      | Very Important |      |
|---|-------|------|---------------|-----|-------------------|-----|--------------------|------|-----------|------|----------------|------|
|   |       |      | <i>f</i>      | %   | <i>f</i>          | %   | <i>f</i>           | %    | <i>f</i>  | %    | <i>f</i>       | %    |
| Treat others with respect, trust, and dignity <sup>a</sup>                            | 17.36 | 1    | 0             | 0.0 | 0                 | 0.0 | 0                  | 0.0  | 3         | 21.4 | 11             | 78.6 |
| Communicate openly and be seen as approachable and open to new ideas <sup>a</sup>     | 16.50 | 2    | 0             | 0.0 | 0                 | 0.0 | 0                  | 0.0  | 5         | 35.7 | 9              | 64.3 |
| Work in a team as well as lead <sup>a</sup>   | 15.71 | 3    | 0             | 0.0 | 0                 | 0.0 | 0                  | 0.0  | 6         | 42.9 | 8              | 57.1 |
| Build trust and have confidence in others <sup>a</sup>                                | 15.29 | 4    | 0             | 0.0 | 0                 | 0.0 | 0                  | 0.0  | 7         | 50.0 | 7              | 50.0 |
| Foster relationships <sup>a</sup>   | 15.25 | 5    | 0             | 0.0 | 0                 | 0.0 | 0                  | 0.0  | 7         | 50.0 | 7              | 50.0 |
| Attract, develop & retain talented individuals <sup>a</sup>                           | 13.54 | 6    | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 5         | 35.7 | 7              | 50.0 |
| Organize resources to accomplish maximum efficiency <sup>a</sup>                      | 13.11 | 7    | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 6         | 42.9 | 6              | 42.9 |
| Lead groups towards achieving the goal of the group <sup>a</sup>                      | 13.11 | 7    | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 6         | 42.9 | 6              | 42.9 |
| Manage and respect others' time <sup>a</sup>  | 12.43 | 9    | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 7         | 50.0 | 5              | 35.7 |
| Recognize others for their contributions <sup>a</sup>                                 | 12.14 | 10   | 0             | 0.0 | 0                 | 0.0 | 1                  | 7.1  | 9         | 64.3 | 4              | 28.6 |
| Practice team building skills <sup>a</sup>  | 12.11 | 11   | 0             | 0.0 | 0                 | 0.0 | 1                  | 7.1  | 9         | 64.3 | 4              | 28.6 |
| Contribute ideas to a group <sup>a</sup>  | 12.07 | 12   | 0             | 0.0 | 0                 | 0.0 | 1                  | 7.1  | 9         | 64.3 | 4              | 28.6 |
| Delegate effectively <sup>a</sup>   | 11.79 | 13   | 0             | 0.0 | 0                 | 0.0 | 3                  | 21.4 | 6         | 42.9 | 5              | 35.7 |
| Supervise others/be a team leader <sup>a</sup>  | 10.82 | 14   | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 9         | 64.3 | 3              | 21.4 |
| Be considerate of the needs and feelings of each individual in the group <sup>a</sup> | 10.68 | 15   | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 9         | 64.3 | 3              | 21.4 |
| Understand group dynamics <sup>a</sup>  | 10.39 | 16   | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 10        | 71.4 | 2              | 14.3 |
| Value diversity <sup>a</sup>  | 10.21 | 17   | 0             | 0.0 | 1                 | 7.1 | 3                  | 21.4 | 6         | 42.9 | 4              | 28.6 |
| Encourage others <sup>a</sup>   | 10.07 | 18   | 0             | 0.0 | 0                 | 0.0 | 4                  | 28.6 | 6         | 42.9 | 4              | 28.6 |
| Identify strengths and weaknesses of others <sup>a</sup>                              | 10.04 | 19   | 0             | 0.0 | 0                 | 0.0 | 2                  | 14.3 | 10        | 71.4 | 2              | 14.3 |
| Develop the leadership potential of others <sup>a</sup>                               | 9.71  | 20   | 0             | 0.0 | 1                 | 7.1 | 5                  | 35.7 | 3         | 21.4 | 5              | 35.7 |
| Inspire, empower and exercise authority <sup>a</sup>                                  | 9.54  | 21   | 0             | 0.0 | 1                 | 7.1 | 4                  | 28.6 | 5         | 35.7 | 4              | 28.6 |
| Enable others <sup>a</sup>  | 8.43  | 22   | 0             | 0.0 | 0                 | 0.0 | 6                  | 42.9 | 5         | 35.7 | 3              | 21.4 |
| Take control <sup>a</sup>   | 5.71  | 23   | 0             | 0.0 | 1                 | 7.1 | 7                  | 50.0 | 5         | 35.7 | 1              | 7.1  |

<sup>a</sup>*n* = 14.

The fourth objective of the study sought to assess the similarities and differences in importance of leadership skills as perceived by recent graduates of the college and business and industry representatives. Friedman Mean Ranks for importance of the 25 personal leadership skills for the two populations were compared. Of the top five skills in the relative rank for importance according to recent graduates (Demonstrate problem solving skills; Accept responsibility; Communicate effectively; Manage time; and Be self-directed/self-motivated), four of the same five (Accept responsibility; Demonstrate problem solving skills, Communicate effectively; Be accountable; and) were in the top five of the business and industry representatives rankings. Of the skills rated lowest in the relative rank for importance according to recent graduates (Evaluate risk; Understand personal Leadership; Define leadership; Demonstrate visioning skills; and Integrate leadership theory with critical issues in agriculture), only two of the five (Integrate leadership theory with critical issues in agriculture and Demonstrate visioning skills) were in the lowest five of the business and industry representatives rankings.

Friedman Mean Ranks for importance of the 23 interpersonal and team leadership skills according to the two groups were also compared. Of the five skills ranked highest according to recent graduates (Treat others with respect, trust, and dignity; Work in a team as well as lead; Communicate openly and be seen as approachable and open to new ideas; Build trust and have confidence in others; and Organize resources to accomplish maximum efficiency), four (Treat others with respect, trust, and dignity; Communicate openly and be seen as approachable and open to new ideas; Work in a team as well as lead; and Build trust and have confidence in others) were also in the top five of the business and industry representatives rankings. Of the skills rated lowest by recent graduates (Enable others; Develop the leadership potential of others; Practice team building skills; Inspire, empower and exercise authority; and Take control), four of the five (Develop the leadership potential of others; Inspire, empower and exercise authority, Enable others; and Take control) were also ranked lowest by the business and industry representatives.

### **Conclusions and Implications**

Recent graduates perceived both personal and interpersonal and team leadership skills to be fairly important to their success in their career. These findings are consistent with the literature (Litzenberg & Schneider, 1987; Maricle, 2003). At least three quarters of the recent graduate participants in this study rated all 25 personal leadership skills and 19 of the 23 interpersonal and team leadership skills as important or very important and over half rated 13 of the 25 personal leadership skills and 5 of the 23 interpersonal and team leadership skills as very important. Recent graduates believed that the Demonstrate problem solving skills personal leadership skill (FMR=16.51) and the Treat others with respect, trust, and dignity interpersonal and team leadership skill (FMR=16.28) are the most important in terms of their success in their career. They believed that the personal leadership skills of Integrating leadership theory with critical issues in agriculture (FMR=7.34) and the interpersonal and team leadership skills of Take control (FMR=8.16) and Inspire, empower, and exercise authority (FMR=9.12) are the least important in terms of skills needed to be successful in their careers. As mentioned above, the Integrate leadership theory with critical issues in agriculture was one of the two personal skills not rated between important and very important and the interpersonal and team leadership skills of Take control and Inspire, empower, and exercise authority were two of the three skills not

rated between important and very important when analyzed by mean score. They were instead seen as between somewhat important and important.

Business and industry representatives were not as convinced of the importance of many of the perceived personal and interpersonal and team leadership skills to the success of a student's future career as were recent graduates. At least three quarters of the business and industry participants in this study rated 20 of the 25 personal leadership skills and 17 of the 23 interpersonal and team leadership skills as important or very important and over half rated nine of the 25 personal leadership skills and six of the 23 interpersonal and team leadership skills as very important. Business and industry representatives believed that the personal leadership skills of Accept responsibility (FMR=19.21) and the interpersonal and team leadership skill of Treat others with respect, trust, and dignity (FMR=17.36) are the most important in terms of students success in their future careers. Business and industry representatives believed that the personal leadership skill of Understand personality and/or learning styles (FMR=6.92) and the interpersonal and team leadership skills of Take control (FMR=5.71) are the least important in terms of skills students need to be successful in their careers.

Overall, business and industry representatives are not as convinced of the importance of personal and interpersonal and team leadership skills to a student's success in their future career as compared to the recent graduates. However, the perceptions of the two groups seemed relatively consistent as to which skills were most and least important.

### **Recommendations**

The demand for future agriculture leaders is immense. With the many changes occurring in agriculture it is essential that strong leaders are formed. Educators in CALS need to recognize this need and use stakeholder input to implement strategies and programs that aimed at developing leaders who are able to effectively guide and direct the agricultural industry in the future. Findings of this study showed that recent graduates and business and industry representatives believed leadership skills are important in order for students to succeed in their future careers. It is encouraging that both groups rated at least some of the skills as being important to very important, supporting the findings of several studies that have documented that various stakeholder groups perceive leadership development to be important (Birkenholz & Schumaker, 1994; Litzenberg & Schneider, 1987; Love & Yoder, 1989; Maricle, 2003; Schumaker & Swan, 1993). More research should address the level of proficiency of CALS students in each of the leadership skill areas. Are they more or less proficient in the areas that are perceived as more important by outside stakeholders?

This study is important to the efforts of agricultural education at this university to develop a leadership education program within CALS. However, future studies should also be conducted that include Colleges of Agriculture at other universities to gain a wider perspective and broader implications for agricultural education as a whole.

## References

- Aldrich, D. G. (1988). *Understanding agriculture: New directions for education*. Washington, DC: National Academy Press.
- Ary, D., Jacobs, L. C., & Razawieh, A. (1996). *Introduction to research in education* (5th ed.). Fort Worth, TX: Harcourt Brace College Publishers.
- Birkenholz, R. J. & Schumacher, L. G. (1994). Leadership skills of college of agriculture graduates. *Journal of Agricultural Education*, 35(4), 1-8.
- College of Agricultural and Life Sciences (2003). *Vision, Goals, and Areas of Emphasis*. Retrieved January 7, 2007, from <http://www.ag.uidaho.edu/overview.htm>.
- Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.
- Fritz, S. M. & Brown, F. W. (1998). Leadership education courses and programs in departments of agricultural education. *Journal of Agricultural Education*, 39(3), 57-62.
- Hughes, R. L., Ginnett, R. C., & Curphy, G. J. (2002). *Leadership: Enhancing the lessons of experience* (4<sup>th</sup> ed.). Boston: Mc-Graw-Hill Irwin.
- Isaac, S., & Michael, W. B. (1995). *Handbook in research and evaluation* (3<sup>rd</sup> ed.). San Diego, CA: EdITS/Educational and Industrial Testing Services.
- Lindner, J. R., Murphy, T. H., & Briers, G. E. (2001). Handling nonresponse in social science research. *Journal of Agricultural Education*, 42(4), 43-53.
- Litzenberg, K., & Schneider, V. (1987). Competencies and qualities of agricultural economics graduates sought by agribusiness employers. *American Journal of Agricultural Economics*, 69(5), 1031-1036.
- Love, G. M. & Yoder, E. P. (1989). *An assessment of undergraduate education in American colleges of agriculture*. University Park, PA: Pennsylvania State University, College of Agriculture.
- Maricle, H. K. (2003). *Entry-level competencies of animal science professionals*. Unpublished masters thesis, University of Nebraska, Lincoln.
- McKinley, B. G., Birkenholz, R. J., & Stewart, B. R. (1993). Characteristics and experiences related to the leadership skills of agriculture students in college. *Journal of Agricultural Education*, 34(3); 76-83.
- Miller, L. E., & Smith, K. L. (1983). Handling nonresponse issues. *Journal of Extension*, 21(5). May 31, 2004, from <http://www.joe.org/joe/1983september/83-5-a7.pdf>

Morgan, A. C., Rudd, R.D., & Kaufman, E. K. (2004). *Elements of an undergraduate agricultural leadership program: A delphi study*. Manuscript submitted for publication.

National Association of Colleges and Employers (2002). *Job outlook 2000 – What employers want*. Retrieved May 24, 2007, from <http://www.naceweb.org>.

Schumacher, L. G. & Swan, M. K. (1993). Need for formal leadership training for students in a land-grant college of agriculture. *Journal of Agricultural Education*, 34(3), 1-9.

Wren, J. T. (1994). Teaching leadership: the art of the possible. *The Journal of Leadership Studies*. 1(2), 71-93.

Yukl, G. (2002). *Leadership in Organizations 5<sup>th</sup> Edition*. Upper Saddle River, New Jersey: Prentice Hall, Inc.