# The Importance of Leadership Skills and Self-Perceived Proficiency of Leadership Skills by College of Agriculture Academic Program Leaders

*David W. Jones*
*North Carolina State University*

*Rick D. Rudd*
*Virginia Tech University*

## Abstract

*The purpose of this study was to assess the perceived importance of six leadership skill areas by academic program leaders (deans) of Colleges of Agriculture at land-grant institutions as well as their self-perceived proficiency in these leadership skill areas. Academic program leaders were defined as individuals listed by the National Association of State University and Land-Grant Colleges as the Dean of Academic Programs in School and Colleges of Agricultural and Life Sciences or Agriculture and Natural Resources. These academic program leaders rated the importance of six leadership skill areas which included: Human Skills, Conceptual Skills, Technical Skills, Communication Skills, Emotional Intelligence Skills and Industry Knowledge Skills as well as their self-perceived level of proficiency in each leadership skill area. Determining where gaps exist between academic program leaders' perception of leadership skills importance and self-perceived level was a goal of this research. Participants of this study rated five of the six leadership skill areas as being Important or Very Important while only one of the five skill areas was rated Somewhat Important. Academic program leaders in this study rated their proficiency as being Above Average in two of the six leadership skill areas while the remaining leadership skill proficiency areas fell in the Average Proficiency category. The smallest gap in leadership skill proficiency and self-perceived proficiency was found to exist in the leadership skill area of technical skills. The largest gap between level of importance and self-perceived proficiency was found in the leadership skill category of Emotional Intelligence. These findings can assist in the training and professional development of academic program leaders.*

## Introduction and Theoretical Framework

Universities and colleges in the United States are encountering a time of change. The quality of their future depends on how well they respond to evolving realities in the larger world beyond their walls (Abelson, 1997). How proficient college of agricultural and life sciences academic program leaders are at leading their colleges and faculty through the change could ensure that the change will be positive for higher education institutions. The leadership of colleges will be a decisive factor of whether the college will be able to successfully manage the change. The academic program leaders (deans) of colleges of agricultural and life sciences have been designated as the individuals responsible for guiding their organization during this time of change.

The necessity of leadership skills has been extensively studied. Leadership skills are the abilities and acquired tasks related to leadership developed by an individual (Moore, 2003). Throughout the history of the study of leadership there has been a plethora of definitions and lists

of leadership skills. The U.S. Army (1973) has developed 10 leadership skills to teach in order to become a more proficient and effective leader. Clark (1999) categorized leadership skills into three groups. These leadership groups consisted of Core or Essential Competencies, Leadership Competencies and Professional Competencies. The Core or Essential Competencies consist of communication, teamwork, creative problem-solving, interpersonal, ability to manage client relationships, self-direction, flexibility, and the ability to build appropriate relationships, professionalism, and financial skills. Leadership Competencies consist of leadership abilities, visioning ability, ability to create and lead teams, ability to assess situations quickly and accurately, the ability to resolve conflicts, manage projects, implement employee involvement strategies and the ability to coach and train peers and subordinates. The skills Clark suggested that are required to make the leader successful include Professional or Individual Skills. These skills include a working knowledge of technical skills needed by the leader.

Yates (2005) conducted a study of women in leadership positions in public educational facilities to determine the leadership skills deemed most important. These leadership skills were: communication skills; a caring attitude; honesty; integrity; truthfulness and respect; visionary; people skills; intelligence; courage; flexibility; experience; organizational skills; sense of humor; and the ability to create a safe environment.

A review of the leadership literature shows several commonalities between leadership traits, qualities, skills, abilities, or competencies of effective, successful leaders. Effective, successful leaders exhibit planning skills. Leaders who have the ability to identify causes, restrictions, and consequences of actions and who tend to show higher performance and task accomplishment rates are deemed successful. The literature also reveals leadership qualities, traits, skills, abilities, or competencies can be classified into one of the following categories: Communication skills; Human skills; Technical skills; Conceptual skills; Emotional Intelligence skills; and Industry Knowledge skills.

Using Simerly and Associate's (1987) conceptual framework and model for strategic planning (implementing change), the current study recommends specific areas of professional development and training in the area of leadership for academic program leaders. Simerly and Associate's (1987) state that strategic planning focuses on:1) designing; 2) implementing; and 3) monitoring for decision making. Following Simerly and Associate's conceptual framework, Apps (1988) developed a framework for the promotion of changes which he called *An Approach to Transformation.* Apps (1988) outlines the process to undergo a change process. This process of transforming leadership skills for academic program leaders would include developing an awareness of insufficiencies in leadership skills and then to promote an integration of professional development strategies to minimize these insufficiencies or gaps in leadership skill areas. The impact to the agricultural education profession is to increase success and sustained viability of agricultural education at land-grant institutions through professional development in leadership and leadership training for land-grant academic program leaders.

## Purpose and Objective

The purpose of this study was to identify and define the leadership skills needed by academic program leaders in colleges of agricultural and life sciences. Academic program

leaders self-perceived level of proficiency of leadership skills was assessed in each leadership skill area. This research addressed the following specific objectives:

1. Determine selected demographic characteristics of land-grant academic program leaders.
2. Assess level of importance of leadership skills, as determined by academic program leaders.
3. Assess self-perceived proficiency of leadership skills of academic program leaders.
4. Identify gaps in leadership skills and proficiency level of academic program leaders.

## Population

The population for this study included academic program leaders of colleges of agricultural and life sciences of land-grant universities. Academic program leaders of Colleges of Agricultural and Life Sciences were determined by using the National Association of State Universities and Land-Grant Colleges (NASULGC) 2005 directory. The colleges of Agricultural and Life Science academic program leaders included in this study represented both 1862 and 1890 land-grant universities. Each participant was contacted because he or she held the title of "Professional Academic Program Leader," "Dean," or a similar title. The directory identified 72 individuals as having the title or fulfilling the role of the academic program leader.

## Instrumentation

Two instruments were used to collect the data presented in this study. In order to accomplish the research objectives, Dillman's (2000) Internet and Interactive Voice Response Surveys Design Methodology was followed. Packets containing the research instruments were mailed to participants. A demographic instrument was used to collect individual information including: age, gender, ethnicity, official position, educational degrees held, educational background, tenure in profession, tenure in leadership position, and previous leadership training. The leadership skills questionnaire was used to measure the importance of leadership skills each academic program leader perceived as being important for the success of his or her position. The leadership skills instrument consisted of 44 questions which were grouped into six leadership areas. The instrument also measured his or her self-perceived level of leadership ability (proficiency) in each of these leadership skill areas. The leadership skills instrument was tested for face and content validity using a panel of experts and a pilot study consisting of academic program leaders from the American Association of State Colleges of Agriculture and Renewable Resources (AASCARR) schools. The reliability of the leadership skills instrument (importance) was ($\alpha$=.87). The reliability for the leadership skills instrument (proficiency) was ($\alpha$=.89). The leadership skills instrument was adopted from a previous leadership study (Moore, 2003) and refined for this study. In Moore's study, the leadership instrument was developed from content analysis of long interviews with administrative heads on what specific leadership skills they believed were needed to be successful in their position. In conjunction with Moore's study, a review of the leadership literature supported Moore's findings.

## Results

### *Selected Demographic Characteristics of Land-grant Academic Program Leaders*

The National Association of State Universities and Land Grant Colleges designates 72 individuals as being academic program leaders or persons with those responsibilities at 1862 and 1890 Land Grant institutions. Fifty-six individuals from the 1862 and 1890 land-grant colleges responded to the research for a 78% response rate. Two follow-ups over a two-month period for institutions that did not respond were conducted. Non-respondents were contacted by telephone, email, and fax. Of the 56 academic program leaders (deans) who participated in the study, 76.8% (*n*=43) were male and 23.3% (*n*=13) were female (Table 1).

Table 1
*Gender*

| Gender | *N* | *n* | % |
|---|---|---|---|
| Male | 56 | 43 | 76.8% |
| Female | 56 | 13 | 23.3% |

The youngest participant in the study was 40, and the oldest was 68 years old. The mean age of the participants was 55.11 years old (Table 2). The mean number of years the participants had been working with the university or college system was 24.86 years. The most years a participant worked at a university was 40, and the participant with the fewest years was 6 years. The fewest years an academic program leader had in his or her formal leadership position was one year while the most was 30 (Table 2). The mean for the number of years in a formal leadership position was 10.82 years. Of the 56 participants, 89.2% (*n*=50) held the doctor of philosophy degree, 7.1% (*n*=4) held a doctor of education degree, 1.7% (*n*=1) held a master's degree in marine affairs, and 1.7% (*n*=1) held a master's degree in education.

Table 2
*Age, Tenure in University or College System & Tenure in Formal Leadership Position*

| Characteristic | *M* | *SD* | *Range* |
|---|---|---|---|
| Age | 55.11 | 6.36 | 40 - 68 |
| Tenure in University or College System | 24.86 | 7.66 | 6 - 40 |
| Tenure in Formal Leadership Position | 10.82 | 6.83 | 1 - 30 |

In terms of ethnicity, this study found 76.8% (*n*=43) were white; 10.7% (*n*=6) were African American; 7.1% (*n*=4) were American Indian or Alaska native; 3.6% (*n*=2) were Asian; and 1.8% (*n*=1) were Hispanic or Latino (Table 3).

Table 3
*Ethnicity*

| | *n* | % |
|---|---|---|
| White | 43 | 76.8% |
| African American | 6 | 10.7% |
| American Indian or Alaskan Native | 4 | 7.1% |
| Asian | 2 | 3.6% |
| Hispanic or Latino | 1 | 1.8% |

*The Importance of Leadership Skills, as Determined by Academic Program Leaders*

Six major leadership skill areas were assessed for this objective. These leadership skill areas were: Human Skills; Conceptual Skills; Technical Skills; Communication Skills; Emotional Intelligence Skills; and Industry Knowledge Skills. Based on Moore's (2003) study, participants rated individual item responses in each leadership skill area from 1 (*Not Important*) to 5 (*Very Important*). Construct scores for perceived leadership skill *importance* were converted to a 100-point scale by dividing the sum of the responses by the total possible response score for each skill area.

In the Human Skills area, there were a total of seven questions. Human Skills deal with how an individual identifies with others personal strengths and weaknesses, how they deal with personnel issues, how they create workplace environments for team members. The scores for Human Skills ranged from 4.67 to a high of 4.87. Questions in the Human Skills area included: Identify personal strengths and weaknesses; Evaluate the impact of personnel; Respect others; Create an environment in which you, as a leader are approachable and open to new ideas; Be an effective team member; Environment that values the diversity of others; and Create an environment in which team members are willing to share ideas. Scores for the *importance* of Human Skills ranged from a low of 77.14 to a high of 100.00. The mean for the Human Skills area was 94.18. This score (94.18) was the sum of the responses for the Human Skills area divided by the total possible response scores.

In the Conceptual Skills area, there were a total of seven questions. The participant's responses indicate they believe conceptual leadership skills to be in the *Important* to *Very Important* category of leadership skills. Conceptual leadership skills deal with vision. This is an important skill to possess if you are responsible for strategic planning as well as growth and change in an organization. Conceptual skills not only allows one to create a vision, but an individual that realizes the importance of conceptual skills will also be able to lead their organization to the point where they can accomplish their goal or objective. Questions in the Conceptual Skills area included: Create a long-term vision for the organization; Think strategically; Set goals; Help others support organizational change; Be decisive; Attitude that supports and welcomes organizational change; Achieve goals. Conceptual Skill scores ranged from a low of 74.29 to a high of 100.00. The mean for Conceptual Skills was 90.77.

The Technical Skills area had seven questions. The participants of this study varied in their perception of importance of the technical skills area. Scores ranged from 3.80 to 4.43. This leadership skill area had one of the largest variances in responses. One academic program leaders stated he had administrative staff to complete the necessary technical requirements of his job. Questions in this area included: Develop budgets for all levels within the organization; Effectively use computer software for word processing; Interpret and explain organizational budgets; Effectively use and search the Internet; Effectively use computer software for spreadsheets; Effectively use computer software for databases; and Effectively integrate computer software program applications (i.e., merge files). Technical Skill scores ranged from a low of 31.43 to a high of 100.00 with a mean of 76.94.

The Communication Skills area had seven questions. Land-grant institutions have the responsibility of teaching, research, and extension. Each aspect of this responsibility has some form of communication requirement, either verbal or written. The academic program leaders involved in this study showed little variance in their answers, rating all areas of communication skills importance in the *Important to Very Important* category. Academic program leaders seem to believe that having oral skills, listening skills, and interpretation skills as being very important. Communication Skill questions included: Interact and communicate with people who have divergent points of view; Identify barriers to listening; Write for various organizational purposes (i.e., technical writing, professional publications, etc.); Read and comprehend a wide range of publications; Reduce barriers to listening; Recognize and effectively use non-verbal cues or behaviors; and Write for various. Communication Skills ranged from a low of 54.29 to a high of 100.00. The mean score for Communication Skills was 85.26.

The Emotional Intelligence Skills area had nine questions. The emotional skills area was deemed *Important to Very Important* by the academic program leaders involved in this study. The ability to take and use constructive criticism was deemed very important by the academic program leaders. Being able to control oneself in emotional situations as well as using time effectively were deemed as being very important by academic program leaders. Set priorities to effectively manage personal time; Resolve conflict; Make use of constructive criticism without becoming critical and angry; Separate personalities from behaviors; Negotiate agreement; High level of motivation; Control emotions in emotional situations; Set priorities to effectively manage organizational time; and Respect for the time commitments of others were questions asked in the Emotional Skills area. The lowest score in the Emotional Intelligence Skill area was 73.33 with 100.00 being the highest score. The mean score for Emotional Intelligence was 92.18.

The Industry Knowledge Skills area had seven questions. Academic program leaders seem to believe that industry knowledge skills are important to the fulfillment of their job. Questions in the Industry Knowledge Skills area included: Create linkages with both traditional and non-traditional audiences; Depth of knowledge in a content area; Identify the needs of various client groups within the state; Explain the political environment of the state and the implications for the land-grant university system; Relationship between statewide programs (i.e., role of various agencies in the delivery of programs); Evaluate the impact of programs for each client group; and Be able to explain the founding principles of the land-grant system with constituents.

Scores in the industry knowledge skills area were not as high as in other areas, but academic program leaders still believe in their importance. It is interesting to note that academic program leaders rated *depth of knowledge in a content area* as having the least importance in the industry knowledge skill area. This would lead an individual to believe that academic program leaders don't need to be "experts" in one particular field. Industry Skill scores ranged from a low of 57.14 to a high of 100.00 with a mean score of 83.11.

As shown in Table 4, the highest mean score was Human Skills (*M*=94.18, *SD*=5.39), and the lowest mean score was Technical Skills (*M*=76.94, *SD*=14.31). The overall mean for the perceived *importance* of leadership skills was an 87.07, with a standard deviation of 9.29. In all areas of perceived importance of leadership skills academic program leaders seem to indicate that they hold these six leadership skills as being important. This supports the literature and other research findings.

Table 4
*Perceived Leadership Skill Importance and Self-perceived Proficiency (N=56)*

| Leadership Skill Area | Importance *M* | Imp. *SD* | Proficiency *M* | Prof. *SD* | Gap |
|---|---|---|---|---|---|
| Human Skills | 94.18 | 5.39 | 86.02 | 9.31 | 8.16 |
| Conceptual Skills | 90.77 | 7.33 | 80.82 | 9.71 | 9.95 |
| Technical Skills | 76.94 | 14.31 | 73.27 | 14.43 | 3.67 |
| Communication Skills | 85.26 | 10.28 | 77.19 | 11.41 | 8.07 |
| Emotional Intelligence Skills | 92.18 | 7.15 | 78.93 | 9.37 | 13.25 |
| Industry Skills | 83.11 | 11.29 | 74.29 | 12.50 | 8.82 |
| Total Importance Score | 87.07 | 9.29 | 78.42 | 11.12 | 8.65 |

*Note*. Gap is equal to the Importance mean score minus the Proficiency mean score.

*Self-perceived Proficiency of Leadership Skills of Academic Program Leaders*

Study participants assessed their self-perceived proficiency within each leadership skill area construct. Participants rated individual item responses in each leadership skill area from 1 (*Not Proficient*) to 5 (*Very Proficient*). The mean score for self-perceived proficiency in the six leadership skill areas was 78.42 (*M*=78.42, *SD*=11.12).

In the Human Skills area, there were a total of seven questions. Academic program leaders believe their proficiency in the human skills area is somewhat proficient. The self-perceived proficiency scores in the Human Skills area ranged from a low of 62.86 to a high of 100.00. It was noted that *respecting others (M*=4.73, *SD*=.56) and *promoting an environment that values the diversity of others* scored the highest in this area *(M*=4.46, *SD*=.74). This indicates that academic program leaders are aware of the need for respect and diversification in their

workplace. Human skills leadership abilities, which include knowing about human behavior and group activity processes, along with the understanding of beliefs, attitudes, and feelings of others, are possessed by academic program leaders, as indicated by their responses of their self-perceived proficiency.

The Conceptual Skills area had seven questions. Academic program leaders believe they are *Somewhat Proficient* in the conceptual skills area. Academic program leaders believe they have the ability to effectively plan, organize and problem solve. Academic program leaders believe they can coordinate and comprehend changes in their work environment. In the Conceptual Skills area, the low score was 57.14 and the high score was 100.00. The mean score for the Conceptual Skills area was 80.82 with a standard deviation of 9.71.

The Technical Skills area had seven questions. The Technical Skills area had the overall lowest score of 37.14 and a high of 100.00. The leadership skills area of technical skills showed academic program leaders feeling they had moderate proficiency. Academic program leaders believe they have medium proficiency in their ability to process, and conduct specialized activities required to complete their jobs. The Technical Skills area had a mean score of 73.27 and a standard deviation of 14.43.

The Communication Skills area had seven questions. Land-grant institutions have the responsibility of teaching, research and extension. Each aspect of this responsibility carries with it a form of communication, either verbal or written. The academic program leaders involved in this study perceive themselves as being proficient in the leadership skills area of communication. The Communication Skills area mean score was 77.19. The standard deviation for this skill area was 11.41. The range of scores in the Communication Skills area was 51.43 to 100.00.

The Emotional Intelligence Skills area had nine questions. Academic program leaders believe themselves to be *Somewhat Proficient* in the Emotional Skills area. Participants scored the Emotional Intelligence Skills area with a low of 55.56 and a high of 100.00. A mean score of 78.93 was found in the Emotional Intelligence Skills area with a standard deviation of 9.37.

The Industry Knowledge Skills area had seven questions. Academic program leaders self-perceived proficiency in the industry skills area is lower then other leadership skill areas. It is interesting to note that *depth of knowledge in a content area* was rated low in importance but high in self-perceived proficiency. Industry Skills scores ranged from a low of 48.57 to a high of 100.00. A mean score of 74.29 with a standard deviation of 12.50 was found in this skill area.

*Gaps in Leadership Skills and Proficiency Level of Academic Program Leaders*

The difference between mean scores for the importance of each leadership skill area and the self-perceived proficiency level of the study's participants are reported in Table 4. Means for the perceived importance of leadership skills were higher in all areas than the means for the self-perceived proficiency of leadership skills. The largest gap between mean scores was in the leadership area of Emotional Intelligence ($M_{\text{Importance}}$=92.18, $M_{\text{Proficiency}}$=78.93) for a difference of 13.25. The scale with the smallest amount of difference occurred in the Technical Skills area ($M_{\text{Importance}}$=76.94, $M_{\text{Proficiency}}$=73.27), which resulted in a difference of 3.67.

## Conclusions

*Conclusion 1: Demographic characteristics of land-grant academic program leaders have little effect on leadership styles or behaviors.*

The demographics of land-grant colleges and university academic program leaders have changed little during the last few decades (Wolverton et al., 2001). The academic program leaders continue to be White, 50 to 60-year-old males, as supported by this research. The leadership literature (Moore, 2003) and research findings of this study suggest that age, gender, and ethnicity do not play a significant role in the leadership style or behavior of academic program leaders. As a result, universities and colleges need to hire the best leaders, regardless of age, gender, ethnicity, or tenure in the profession.

*Conclusion 2: Academic program leaders believe leadership skills are important.*

Academic program leaders responding to this study believe Human Skills, Conceptual Skills, Technical Skills, Communication Skills, Emotional Intelligence Skills and Industry Knowledge Skills are necessary. All leadership skills areas fell in the *Important* to *Very Important* range with the only exception being the Technical Skills area, which fell in the *Somewhat Important* category. It is encouraging to note that academic program leaders place value in these leadership areas. Human skills are relating to personnel, identifying personal strengths, evaluating the impact of personnel, respecting others, creating an environment in which the leader is approachable and open to new ideas, being an effective team member, valuing the diversity of others, and creating an environment in which team members are willing to share ideas are known as "people skills." These skills deal with how people get along with each other. Kouzes and Posner (2002) rated human skills as being extremely important for the effective leader.

Conceptual skills are those skills a leader possesses which allows him or her to create a long-term vision for the organization, think strategically, set goals, help others support organizational change, be decisive, and achieve goals. Expressing the importance of this set of leadership skills demonstrates the academic program leader's ability to see how critical his or her vision is to the success of the organization. Conceptual skills are the "big picture" skills that express the leader's dreams and desires. It is evident from this research that academic program leaders wish to see the success of their institution and believe conceptual skills are instrumental in that task.

Developing budgets, using computers and software, and using the Internet are technical leadership skills. This is the only leadership skill area that fell into the somewhat important area by the academic program leaders. Based on narrative statements from participants of this study, these skills are often delegated to administrative staff. Therefore, these technical skills are perceived by academic program leaders as not being necessary for the fulfillment of their job and, consequently, not as important as other leadership skills.

Communication Skills were rated *Important* to *Very Important* by the academic program leaders. The ability to interact with people, identify barriers to listening, write effectively,

reduce barriers to effective communication, and recognize nonverbal cues and/or behaviors are all deemed important by the academic program leaders. The high score of Communication skills may be a direct result of the need for academic program leaders to be able to work with others in whom they are in contact on a daily basis, and they find it necessary to express their point to those individuals clearly and efficiently.

Academic program leaders deemed Emotional Intelligence skills *Very Important*. Being able to set priorities both personally and professionally, resolve conflict, use constructive criticism, negotiate agreement, motivate individuals to perform their best, be able to control emotions in emotional situations, and respect time commitments of others are all Emotional Intelligence skills. Goleman, Boyatzis et al. (2002), believed that Emotional Intelligence is the best predictor of a leader's success. By valuing these skills, academic program leaders are showing their support for the importance of these skills in fulfilling their duties.

Industry Knowledge skills also fell into the *Important* to *Very Important* category. Creating links within traditional and non-traditional audiences, having knowledge in a content area, identifying needs of various client groups, and being able to build relationships between programs are leadership skills that fall into the Industry Knowledge skills category. Academic program leaders believe it is important to be able to "talk the talk" in their profession. Being able to talk the talk is important if the academic program leader is to build rapport with his or her constituents and perform his or her job effectively.

*Conclusion 3: Academic program leader's self-perceived proficiency in leadership skills is average.*

With the exception of Human Skills and Conceptual Skills (barely), academic program leaders' self-perceived proficiency of leadership skills fell in the *Average Proficiency* category. Academic program leaders rated leadership skills as being *Very Important* in almost all areas, but believe they are not as proficient as they could be. It is important to remember this is self-reported data, and self-reported data may suffer from bias because the respondents report what they "want" the answers to be. These findings have serious impacts for Objective 4.

*Conclusion 4: "Gaps" exist between leadership skills and proficiency level of academic program leaders.*

This research identified "gaps" between leadership skill areas and proficiency level of academic program leaders (Table 1). A gap is the difference between perceived level of importance and proficiency. The findings imply academic program leaders can use professional development in all areas of leadership. However, findings of this study identified the leadership skill area of Emotional Intelligence in need of the most attention.

The gap between Emotional Intelligence skills and self-perceived proficiency in the Emotional Intelligence skills area was the greatest. This is an important finding. Goleman, Boyatzis and McKee (2002) proposed that "great" leaders ignite passion and inspire the best in people with their use of emotional intelligence. It can be reasoned that emotional intelligence skills are very important to academic program leaders if they wish to be successful, effective leaders. Academic program leaders have determined Emotional Intelligence skills are important

for fulfillment of their job responsibilities. However, academic program leaders feel their proficiency in this skill area to be average. This study determined professional development is needed to address the gap between the proficiency level and perceived importance of Emotional Intelligence. It has been found that Emotional Intelligence is among the areas in most need of professional development, which implies that academic program leaders feel they need to become more proficient in this area.

Emotional intelligence deals with emotions--one's own emotions and others persons' emotions--and seeks to raise others to a higher sense of personal best. The four remaining leadership skill areas should also be included in professional development activities. Academic program leaders rated the importance of Conceptual Skills as *Very Important* and their proficiency as only slightly higher than *Somewhat Proficient* for a difference of (9.95). Considering that conceptual skills are the "big picture" skills, these skills also appear to be very dependent on human skills relying on their followers to close the conceptual skills gap. The implication for academic program leaders is that they must develop professional conceptual skills due to the fact conceptual skills appear to be leader-driven, leader-centered, and less affected in origin by the followers.

## Implications

This study found females and minorities under-represented in academic program leadership positions. This finding leads the researcher to ask the following questions: (1) Are minorities under-represented compared to other academic program leaders in other university departments? (2) Are minorities under-represented compared to minorities in other similar leadership positions in industry, or better yet, compared to the percentage of minorities living and working in the cross-section of America? (3) Are there fewer minorities than Whites to begin with? Additional research is needed to answer these questions. The researcher recommends continued university effort in recruiting and hiring diverse populations regarding gender and ethnicity by encouraging non-male, non-White individuals to apply for academic program leadership positions as well as seeking the most qualified applicants for the position.

This study determined the specific leadership skills that academic program leaders believe are important in order to be effective and promote positive change in their positions. By determining the specific skills that academic program leaders need to perform their jobs, standards and criterion may be set for hiring colleges of agricultural and life science academic program leaders. In addition, determining the specific skills deemed important by these leaders will assist in the preparation and successful delivery of future leadership development programs and educational programs. Developing leadership programs, which focus on preparing professional academic program leaders, will offer the opportunity to ensure more competent leaders from more diverse populations, including women and minorities are selected for leadership positions. This information will assist individuals who are interested in pursuing leadership positions in Colleges of Agricultural and Life Sciences by defining the leadership skills required.

## Recommendations

The findings of this study should be used to plan professional development activities and leadership training courses as well as other opportunities for personal and professional growth for academic program leaders. Identifying the gaps between leadership skills *importance* and leadership skills *proficiency* defines what instruction and professional development is needed for academic program leaders.

It is recommended that education as well as continued professional development in the leadership skills areas be emphasized and encouraged for persons interested in working in leadership roles in higher education. The implications for the Agricultural Education profession generated from this study includes the awareness of the need for professional development in higher education to promote emotional intelligence leadership skills as well as the other 5 leadership skill areas. Higher education needs to address the needs of academic program leaders and work toward facilitating educational practices that address these needs.

## References

Abelson, P. H., (1997). Evolution of higher education. *Science 8*, 277(5327), 747.

Apps, J. W., (1988). Higher education in a learning society. Meeting new demands for education and training. Jossey-Bass Inc., Publishers, San Francisco, CA.

Clark, D. (1999). Leadership competency model or pyramid of leadership. Retrieved on December 23, 2005, from: http://nwlink.com/~donclark/hrd/case/chart1.html

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.

Goleman, D., Boyatzis, R., & McKee, A. (2002). *Primal leadership: Realizing the power of emotional intelligence*. Boston, MA: Harvard Business School of Publishing.

Keller, G. (1983). Academic strategy: The management revolution in american higher education. Baltimore: Johns Hopkins University Press.

Kouzes, J. M., & Posner, B. Z. (2002). *The leadership challenge.* San Francisco: Jossey-Bass.

Moore, L. L. (2003). *Leadership in the cooperative extension system: An examination of leadership styles and skills of state directors and administrators.* Unpublished doctoral dissertation, University of Florida, Gainesville.

National Association of State Universities and Land-Grant Colleges. Retrieved on January 7, 2006, from http://nasulgc.org

Simerly, R. G., and Associates (1987). Strategic planning and leadership in continuing education. Jossey-Bass.

U.S. Army Handbook (1973). *Military Leadership*.

Wolverton, M., Gmelch, W., Montez, J., & Nies, C. (2001). The changing nature of the academic deanship, 28, (21). San Francisco, CA; Jossey Bass (ASHEERIC Higher Education Report No. ED 457 708).

Yates, J. O. (2005). Women in leadership positions in Tennessee public schools: A qualitative study of female directors of schools. Unpublished doctoral dissertation, East Tennessee State University, Johnson City.