Abstract

Employees who possess effective leadership skills are likely to motivate others around them and be more successful during their careers. Because of this, employers desire to hire college graduates who possess these skills, especially within careers associated with agriculture. This study sought to measure the transformational leadership behaviors of golf course superintendents, the outcomes of those behaviors, and determine if relationships exist between transformational leadership behaviors and leadership outcomes. Quantitative data was collected using Kouzes and Posner’s Leadership Practices Inventory® questionnaire (LPI) and perceived outcome questions stemming from Bass and Avolio’s Multifactor Leadership Questionnaire® (MLQ). Data analysis revealed that Model the Way was the transformational leadership behavior most widely used, followed closely by Enable Others to Act. The outcome of Effectiveness was highest, with the strongest practice/outcome correlation between Model the Way and Satisfaction. It was recommended that leadership education be included in undergraduate turfgrass curriculum, specifically to help prepare turf professionals for successful careers and that the turf industry implement professional development opportunities to increase golf course superintendent transformational leadership behaviors and employee outcomes.

Introduction

Organizations in the agricultural industry take on a variety of forms and sizes, from entrepreneurial producers to multinational corporations, all of which require leaders with skill sets to guide individuals, departments, and entire companies (Washington Post, 2010; Brooks et al., 2008). Today, more than ever before, businesses are interested in leadership development of their employees and they benefit from hiring employees who possess the leadership traits needed for their position (Light, 2010; Useem, 2010). Employees who possess and effectively apply leadership traits and skills have the ability to create a culture of success. Research has shown that successful leaders are personable, charismatic, influential, and have the company’s and the employee’s best interests at heart (Dubrin, 2007).

Within agriculture, leadership skills, behaviors, and knowledge have been investigated for over three decades, primarily with youth and academic populations (Brannon et al., 1989; Dormody and Severs, 1994; Ladewig and Thomas, 1987; Luft, 1986; Ricketts and Newcomb, 1984; Ricketts and Rudd, 2004; Spotanski and Carter, 1993). Ricketts and Newcomb (1984) studied the leadership behaviors of 12th grade students and found that those engaged in FFA had significantly higher leadership behaviors. When looking at adults, Brannon et al. (1989) found that community leaders attributed much of their leadership success to participation in FFA either as youth or through adult volunteer activities. Similarly, Ladewig and Thomas (1987) surveyed adults and found that participation in organized youth activities, including 4-H, has a positive impact on self-perceived leadership skills.

The study of leadership and its correlation to success in business has produced many opinions and theories. According to a study by Moore and Rudd (2005), everyone agrees leadership is important, but a consensus of which skills are most important has not been established. From those studies, many skills of a successful leader have been identified, such as self-confidence, humility, trustworthiness, warmth,
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In today’s business world a shift has occurred as to how leadership is viewed. In years past a traditional view of leadership tended to be a “top-down,” autocratic affair; but today, industry sees leadership as more participative and engaging (Moore and Rudd, 2005). When employees are more personally involved in the decision making processes they show more enthusiasm and ownership of their work. This new form of leadership, known as transformational leadership, makes an employee feel more self-confident and valued which, in turn, makes them more dedicated employees. In addition, they report increased job satisfaction and elevated feelings towards co-workers and leaders (Bass, 1996; Kouzes and Posner, 2007). “Transformational leaders motivate others to do more than they originally intended and often even more than they thought possible. They set more challenging expectations and typically achieve higher performances” (Bass, 1996, p. 4).

Bass and Avolio’s (1994) research emphasized not only transformational leadership behaviors but also the outcomes of these behaviors (Bass, 1985). These outcomes are Effectiveness, Satisfaction, and Extra Effort exhibited by employees as a result of successful leadership behaviors. Effectiveness can be described as the ability of a person to perform job functions in a careful, complete, and efficient manner. Bass also found that “Generally ... the transformational factors were more strongly associated ... with Effectiveness, particularly to the extent the superior was seen to contribute to meeting the requirements of the organization and to meeting job related needs” (p. 224). Satisfaction is the positive feeling an employee has for his or her job, leader, or work environment. Satisfied workers tend to take a sense of pride and ownership in their position and have a higher opinion of their leader. From his research, Bass notes that transformational leadership was a “more satisfying” form of leadership than some of the other leadership styles (p. 224). Extra Effort is the third outcome that was measured by Bass to show “how highly a leader motivates subordinates beyond expectations” (p. 213). This is a result of the amount of dedication and motivation an employee has towards his or her job and the leader. The study also emphasized that the transformational leadership factors of charisma and intellectual stimulation were most related to Extra Effort (Bass, 1985).

Based upon Bass and Avolio’s (1994) research of transformational leadership and their own empirical study of thousands of company leaders, Kouzes and Posner (2007) uncovered what they call “The Five Practices of Exemplary Leadership” (p. 14) that identify the behaviors that exemplary leaders possess. They explain that not all great leaders are born great, and that anyone, in any position, can become a leader.

The first practice is for leaders to Model the Way. This practice asks the leaders to set the example for their employees by how they lead. Kouzes and Posner (2007) state that, “To effectively model the behavior of others, leaders must first be clear about guiding principles. They must clarify values” (p. 15). The values a leader exemplifies set the tone for the entire organization to follow. To Model the Way, a leader also needs to find his or her voice, meaning that they need to find their own style of communicating their beliefs to their followers.

The second practice is to Inspire a Shared Vision (Kouzes and Posner, 2007). In order to inspire followers, a leader must be passionate and excite their employees with this vision. In this second practice, communication is especially important when sharing and inspiring a vision. Kouzes and Posner state that “To enlist people in a vision, leaders must know their constituents and speak their language. People must believe that leaders understand their needs and have their interests at heart. Leadership is a dialogue, not a monologue” (p. 17).

Practice three is to Challenge the Process. Effective leaders seek new directions and experiments, and take risks in order to achieve greatness (Kouzes and Posner, 2007). Innovation requires leaders to listen and stay in touch with the market by promoting good internal and external communication. Leaders do this to get the best out of themselves and the organization. In this sense, credibility is then crucial for a leader because innovation and experimentation can be risky.

The next practice is Enable Others to Act. A leader cannot achieve success without a good relationship and the full support from employees; this behavior involves a leader fostering collaboration and building trust with their followers (Kouzes and Posner, 2007). Team effort is required for successful leadership to occur. By building confidence in your team and giving them the education and tools they need, they will become responsible for their own assignments and have the ability to complete their work to a higher level. If they fail occasionally, they’ll know they will be supported and guided to perform better next time.

Kouzes and Posner’s (2007) research also determined that leaders who recognize their employees’ successes publicly, such as by giving a party or celebration, will make employees feel empowered and appreciated. This will in turn make the employee want to continue to produce high quality work and give them a sense of pride in their accomplishments (Kouzes and Posner, 2007). This fifth practice of leadership is Encourage the Heart. As touched on earlier, meaningful recognition of employee contributions is a very important leadership behavior and responsibility. This practice emphasizes that leaders need to expect the best from themselves and encourage their employees to do their best.

Empirical research also shows that organizations with leaders who exhibit the Five Practices of
Exemplary Leadership have higher employee morale, higher productivity, and strong economic growth (Kouzes and Posner, 2002). According to one study “Companies with a strong and consistent application of these five leadership practices had a net income growth of 841% versus -49% for companies with a low incident of leadership practices” (p. 4). Other research found that “Based upon mean scores, Enable is the leadership practice most frequently reported being used. This is closely followed by Model; with the average scores for Challenging and Encouraging being fairly similar. Inspiring is perceived (both by respondents and their constituents) as the leadership practice least frequently engaged in” (p. 4).

Transformational leaders must also have the technical knowledge of their industry to be perceived as credible, which in turn gains their employees’ respect (Kouzes and Posner, 2007). Without credibility, followers struggle to accept the vision of the leader (Kouzes and Posner, 2007). Moreover, a successful leader will perform at a high level and also expect a similarly high level of production from their followers. Kouzes and Posner (2007) state that “High expectations lead to high performance” (p. 284).

Bass and Avolio’s (1994) research of transformational and transactional leadership lead them to develop the Multifactor Leadership Questionnaire© (MLQ), an instrument used to measure leadership behaviors and their outcomes on individuals and organizations. Bass (1996) notes that transformational leadership has four components and transactional leadership has three, all of which can be identified by using the MLQ©. The four transformational components are idealized influence (charisma), inspirational motivation, intellectual stimulation, and individual consideration. Conversely, the three components of transactional leadership are contingent reward, management-by-exception (passive or active), and Laissez-Faire. Transformational leaders aspire to achieve greater results than just a simple transaction of work and reward among co-workers by bringing out the best of themselves and their employees through creating an inspiring and meaningful organizational environment (Bass, 1996).

Kouzes and Posner’s (2007) research of transformational leadership lead them to form the Leadership Practices Inventory© (LPI) which measures the performance of the five leadership practices: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. Both the MLQ© and the LPI© have been used extensively by researchers as a measuring tool for leadership and have continually produced valid assessments of leadership practices among managerial leaders (Greimann et al., 2007; Jones and Rudd, 2008; Kass, and Grandzol, 2010; Schriesheim et al., 2009; Sinasky and Bruce, 2005, 2006). “The MLQ© and LPI© measure the compe-
tencies leaders are currently using successfully and what areas may provide opportunities for improvement” (Sinasky and Bruce, 2006, para. 10).

The LPI© has been used successfully with a variety of populations. To assess the impact of community leadership programs in underserved populations Walker and Gray (2009) conducted a phone survey which revealed that respondents who had attended leadership programs scored significantly higher in the behaviors of Challenge the Process and Encourage the Heart, than did those that did not. In addition, Rudd (2000) used the LPI© to assess the leadership styles of county Extensions directors, who ranked themselves highest in Enable Others to Act. Likewise, Spotanski and Carter (1993) asked department executive officers to assess themselves with the LPI© and found they scored highest on Enable Others to Act as well. Executives with greater administrative responsibilities scored significantly higher on the leadership behaviors Inspiring a Shared Vision and Encouraging the Heart than those with less administrative responsibilities. Those who had attended leadership training had significantly higher scores for Enable Others to Act and Encouraging the Heart than those with who had not received training.

The MLQ© has also been used within agricultural circles (Greiman, 2009). Greiman et al. (2007) assessed agricultural education teachers and determined they preferred transformational leadership style. When teachers were grouped by gender, years of experience, or education, no significant difference were found in the styles preferred. Further, Jones and Rudd (2008) found academic administrators (deans) utilized transformational leadership skills most, with males scoring themselves higher than females in all leadership areas.

While much research has been conducted in the discipline of agriculture to study leadership styles, youth leadership, and leadership in the context of Extension and academia, little research exists studying the effects of transformational leadership behaviors of agricultural professionals, such as golf course superintendents or their employees. This may be a problem for leaders wanting to transform agricultural organizations, especially if they are unable to find research suggesting the best ways to bring about the positive outcomes of leadership such as Effectiveness, Satisfaction, and Extra Effort by employees (Bass, 1998). Likewise, this information may help to inform faculty who are preparing students to become leaders in their field. This study is conducted in the context of the turf industry—a $40 billion industry that ranks 3rd in total acreage nationwide, which is replete with problems (i.e., water management) in need of sound leadership. In fact, Seagle and Iverson (2002) conducted a Delphi study of turfgrass industry experts and discovered that when teaching about the industry, “human resource management and ethics,” “business
management,” and “communication skills” should all be included in the curriculum.

The purpose of this study was to describe the self-perceived transformational leadership behaviors (Kouzes and Posner, 2007) used by golf course superintendents in the state of Georgia, and the leadership outcomes of those behaviors (Bass, 1998). By doing this, golf course superintendents’ leadership behaviors and perceived impacts of those behaviors may be better understood, and the relationships between these behaviors and outcomes could be explored. In addition, professional development workshops and undergraduate curriculum might be developed to address needed leadership behaviors of current superintendents and future turfgrass professionals. The following objectives guided this study:

1. Describe the self-perceived leadership behaviors of Georgia golf course superintendents.
2. Describe the self-perceived leadership outcomes that these leaders generate among their followers.
3. Determine if relationships exist between transformational leadership behaviors and leadership outcomes.

Materials and Methods

To conduct this descriptive survey research, an online questionnaire consisting of the LPI© (Kouzes and Posner, 2007), a researcher-adapted outcome questions from the MLQ©, and demographic questions, was administered to the entire population of turf professionals who received emails via the Georgia Golf Course Superintendents Association (GGCSA) listserv (N = 278). The University of Georgia Institutional Review Board approved the research protocols used in this study and a web-based informed consent was provided as part of the online survey.

The LPI© consists of thirty transformational leadership behavior questions, within which there are six questions for each of the five constructs. The participants rate themselves for each behavior on a scale ranging from 1 (almost never) to 10 (almost always). The LPI© is calculated by summing the construct scales (range 6-60). The internal reliabilities of the constructs are: .74 for Model the Way, .88 for Inspire a Shared Vision, .79 for Challenge the Process, .73 for Enable Others to Act, and .86 for Encourage the Heart (Posner, 2009). Validity for the LPI© was established by experts and through extensive use and testing (Posner, 2009, 2010; Shoemaker, 1994). Permission to use the LPI© was asked of and granted by Drs. Kouzes and Posner prior to this study (personal communication, April 12, 2009).

To measure the three leadership outcomes the MLQ© used nine questions, with one construct consisting of only two questions. To tailor the questions to turf professionals, the researchers developed a series of additional questions for each outcome, which were pilot tested with 25 students in a leadership development course. The participants rated themselves for each question on a scale ranging from 1 (almost never) to 10 (almost always). Cronbach’s alpha was used to determine reliabilities for the three scales. After removing one item from the Effectiveness outcome (five items) and one item from the Extra Effort outcome (four items), the Cronbach’s alpha reliability of these scales was .83 and .88, respectively. The seven-item Satisfaction outcome scale had a reliability of .95, so all items were retained. The researcher-modified portion was standardized by determining the means for each construct and then multiplying by 10 to give a standardized score for each outcome of 10-100.

A post hoc reliability analysis was conducted using Cronbach’s alpha. Model the Way was .76, Inspire a Shared Vision was .81, Challenge the Process was .75, Enable Others to Act was .73, Encourage the Heart was .87, Effectiveness was .83, Extra Effort was .75, and Satisfaction was .85.

The Tailored Design Method (Dillman, 2007) was utilized for data collection. The questionnaire was placed on SurveyMonkey© and then an email containing a link to the instrument and a note describing the survey and its importance, was emailed to the population, along with two reminder emails during the subsequent three weeks. To increase participation, emails were sent from a respected University of Georgia turf grass professor and member of the Georgia Golf Course Superintendents’ Association (GGCSA). A 24% response rate was achieved (n = 67). A comparison of early and late respondents was conducted to account for non-response error (Armstrong and Overton, 1977). Early (n = 21) and late (n = 40) respondents were compared on LPI© constructs, outcomes, and key demographic variables using a t-test and no significant differences were found between the groups.

Results and Discussion

The participants were 100% male, and of those providing demographical data, 19.6% listed a high school diploma as their highest degree, 33% an associate’s degree, and 48% a bachelor’s degree. The mean age was 42.7 years, with a range of 26-60 (Table 1). The range of years in the golf industry was 5-44, with a mean of 20.5, while the mean years as a golf course superintendent was 12.3 with a range of 1-36. Participants were also asked how many years of managerial experience they had in the golf course industry, as well as beyond the golf course industry (“any type”). Respondents managerial experience in the industry ranged from 3-36 years ($M = 15.5$) and beyond the industry was 3-36 years ($M = 17.9$).

The first objective was to describe the self-perceived leadership behaviors of Georgia golf course superintendents. The mean overall transformational
leadership behavior score from the LPI© was 241.3 of a possible 300 (Table 2). The LPI© score was made up of five constructs, with Model the Way garnering the highest score, which ranged from 36 to 60 (M = 51.2), a high (72nd percentile) level based on Kouzes and Posner's (2007) findings. The other constructs' scores were in the middle percentile levels. The construct scores for Enable Others to Act ranged between 33 and 60 (M = 50.6, 53rd percentile), and Encourage the Heart ranged from 12 to 60 (M = 47.5, 44th percentile). Similarly, the constructs Challenge the Process and Inspire a Shared Vision ranged from 29 to 58 (M = 46.6, 53rd percentile) and ranged from 29 to 60 (M = 45.5, 51st percentile), respectively.

Table 2. Leadership Practices Inventory Constructs and Total Scores (n = 64)

<table>
<thead>
<tr>
<th>Leadership Behavior</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model the Way (MTW)</td>
<td>51.2</td>
<td>5.21</td>
<td>36</td>
<td>60</td>
</tr>
<tr>
<td>Enable Others to Act (EOTA)</td>
<td>50.6</td>
<td>5.36</td>
<td>33</td>
<td>60</td>
</tr>
<tr>
<td>Encourage the Heart (ETH)</td>
<td>47.5</td>
<td>8.29</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Challenge the Process (CTP)</td>
<td>46.6</td>
<td>6.53</td>
<td>29</td>
<td>58</td>
</tr>
<tr>
<td>Inspire a Shared Vision (ISV)</td>
<td>45.5</td>
<td>7.35</td>
<td>29</td>
<td>60</td>
</tr>
<tr>
<td>Total Transformational Behavior</td>
<td>241.3</td>
<td>26.49</td>
<td>178</td>
<td>295</td>
</tr>
</tbody>
</table>

These results compare favorably to results presented by Posner (2010), in which the total LPI© behavior score was 233.3 (N = 241,000). However, when analyzing individual means, some differences do emerge. Posner's research produced the following results: Model the Way was 47.3, Enable Others to Act was 49.8, Encourage the Heart was 46.4, Challenge the Process was 45.3, and Inspire a Shared Vision was 44.5. When the results of the current study are compared to the means found by Posner, golf course superintendents scored 3.9 points higher at Model the Way and about one point higher at the other practices.

Because the practice of Model the Way was strongest among participants, it could be interpreted that this practice is the most important for influencing positive outcome from followers. Moreover, it supports transformational leadership theory in that behaviors are a valuable and relevant way of building effective working relationships and credibility with the superintendent (Dubrin, 2007). Shoemaker (1994) found that Model the Way had the most important effect on role clarity, which suggests effective transformational leaders need to lead by example or model how roles should be fulfilled by their employees. For this study it appears that Model the Way, as exhibited by showing crew members how to perform their tasks to the superintendent's expected standards, is a key to effective follower performance.

The other four leadership behaviors ranked in the upper-middle percentile, as established by Kouzes and Posner (2003). Enable Others to Act was the second strongest leadership behavior, which may be common among leaders who assemble teams. In the turf maintenance industry, as in many professions, it is common for crew members to be put into small groups to accomplish required tasks. Once the crew has been trained, the most important way to ensure everything gets done on a daily basis is to delegate responsibilities, or Enable Others to Act, so it was plausible to see this being a top ranked leadership behavior. Similarly, Hacker and Roberts (2007) noted how empowering employees can instill a deeper meaning to their tasks. Perhaps, as a member of a maintenance crew, there may be a certain amount of pride that builds inside the employee who has been entrusted or empowered with a duty they are expected to perform well.

Encourage the Heart was the third highest transformational leadership behavior. In the context of golf course maintenance encouraging followers is needed and beneficial. Leader behaviors such as a verbal compliment or “thank you” can encourage followers. Formal recognition, such as awards, brings appropriate, positive attention to employees which is often a form of encouragement to the recipient as well as their peers. Other studies have found the transformational leader will utilize their position to encourage workers to find personal gratification in their work (Hacker and Roberts, 2007).

The fourth highest scored transformational behavior exhibited was Challenge the Process. From the data, it would seem this construct is not as highly used because a large part of golf course work is routine, sometimes daily, maintenance, so not much innovation may be needed. However, creating an atmosphere in which followers may suggest ways to improve the work environment, increase efficiency,
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etc., may be an effective way to demonstrate this behavior.

Finally, the fifth highest scored transformational behavior exhibited was Inspire a Shared Vision. Although this is an important leadership behavior, it may be the least used behavior for similar reasons that Challenge the Process was a lesser used behavior. It may be inferred that due to the daily schedule of maintaining a golf course, the “vision” is achieved daily; therefore achieving the vision becomes more routine.

The second objective was to describe the leadership outcomes that Georgia golf course superintendents believe they generate among their followers: Effectiveness, Satisfaction, and Extra Effort. The mean overall outcome score was 250.4 indicating that overall employee outcomes were “usually” realized (Table 3). When viewing the individual constructs, the score for Effectiveness ($M = 88.0$) ranged from 53 (occasionally employee Effectiveness was an outcome) to 100 (almost always), and was the highest outcome. The Extra Effort score ranged from 38 to 100 ($M = 82.7$) and Satisfaction ranged from 43 to 100 ($M = 79.7$).

Three employee outcomes were measured in the study. Of these, the Effectiveness and Extra Effort outcome scores were similar, and the Satisfaction scores were the lowest. Based on these findings, it would appear that transformational leadership behaviors among golf course superintendents tend to generate Effectiveness and Extra Effort outcomes at similar levels. Similar results were found by Tucker et al. (1999) who used the MLQ© to measure leadership outcomes and found that Effectiveness and Extra Effort were higher than Satisfaction.

The final objective was to determine if relationships existed between transformational leadership behaviors and leadership outcomes. The scale data was treated as ordinal and Spearman’s rho was used for this analysis (Clason and Dormody, 1994; Miller, 1998). Davis (1971) suggested adjectives to describe the magnitude of correlations: 1.0 signified a perfect correlation, .70-.99 was very high, .50-.69 was substantial, .30-.49 was moderate, .10-.29 was low, and a score of .01-.09 was a negligible correlation.

Several substantial relationships were found with the outcomes Satisfaction and Extra Effort. The leadership practice Model the Way had strongest correlation in the table with Satisfaction (p = .64). The strengths of other relationships ranged from .33 (moderate) to .60 (substantial). In general, the relationships between leadership behaviors and the outcome Satisfaction were substantial (.54-.64), while the behavioral relationships with Effectiveness were moderate to substantial (.33-.52), as were the relationships with Extra Effort (.46-.60).

The correlations between transformational leadership behaviors and outcomes were all positive, with Model the Way showing the strongest correlation with Satisfaction (.64) and Effectiveness (.52). Perhaps this is more common within labor intensive industries, such as turfgrass, in which good leaders will lead by example, showing followers how to accomplish a task and willing to “get their hands dirty” if needed. The other leadership behaviors have positive relationships with the outcomes, which is similar to the findings of Brown et al. (1996) who found substantial to very high relationships with transformational behaviors. However, Tucker et al. (1999) found a very high relationship with Extra Effort but negligible relationships with Effectiveness and Satisfaction.

**Summary**

Perhaps the greatest finding of this investigation was determining the self-perceived level of transformational leadership behaviors used by golf course superintendents and the perceived employee outcomes that were positively related to those behaviors. From this study it appears that transformational leadership behaviors have a positive effect on how golf course superintendents lead their employees. These findings were consistent with the theory that transformational leadership practices have a positive and beneficial effect on leadership outcomes (Kouzes and Posner, 2007).

The results of this study have implications for educators as they prepare students to enter the turf profession. Previous authors have posited that

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**Table 3. Leadership Outcomes Constructs and Total Scores (n = 64)**

<table>
<thead>
<tr>
<th>Leadership Outcome</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>88.0</td>
<td>10.61</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td>Extra Effort</td>
<td>82.7</td>
<td>11.79</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>79.7</td>
<td>13.02</td>
<td>43</td>
<td>100</td>
</tr>
<tr>
<td>Total Leadership Outcomes</td>
<td>250.4</td>
<td>30.45</td>
<td>152</td>
<td>300</td>
</tr>
</tbody>
</table>

*Note: Possible scores had a range from a low of 0 to a high of 100.*

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**Table 4. Spearman’s rho Correlations of Transformational Leadership Behaviors and Leadership Outcomes (n = 64)**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>CTP</th>
<th>ISV</th>
<th>EOTA</th>
<th>MTW</th>
<th>ETH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>.33 &quot;</td>
<td>.37 &quot;</td>
<td>.42 &quot;</td>
<td>.52 &quot;</td>
<td>.35 &quot;</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>.59 &quot;</td>
<td>.54 &quot;</td>
<td>.58 &quot;</td>
<td>.64 &quot;</td>
<td>.56 &quot;</td>
</tr>
<tr>
<td>Extra Effort</td>
<td>.60 &quot;</td>
<td>.57 &quot;</td>
<td>.54 &quot;</td>
<td>.48 &quot;</td>
<td>.46 &quot;</td>
</tr>
</tbody>
</table>

*Note: * p < .05; ** p< .01*
leadership education can lead to improved leadership behavior (Barker, 1997; Blackwell, 2006; Day, 2001; Hill, 2006). Indeed, military organizations have their foundation in this supposition (Brinsfield, 1998). With this in mind, it is recommended that post-secondary instruction include leadership coursework to help students understand the importance of leadership skills and equip them with the transformational leadership behaviors necessary to be effective golf course superintendents or supervisors in the turf industry. Likewise, professional development workshops and seminars that provide leadership knowledge and skills could also be beneficial to turfgrass industry professionals. As noted earlier, studies have illustrated the benefits of leadership training for successful outcomes (Spotanski and Carter, 1993; Walker and Gray, 2009). They noted that when study participants had previously engaged in formal leadership courses, a higher level of beneficial leadership behavioral practices were used, as opposed to participants that had not taken leadership training courses. Granted, the correlations revealed in this study cannot be assumed to be causal, nonetheless, by increasing transformational leadership behaviors, positive employee outcomes may occur, which would produce many benefits including a more enduring and meaningful working relationship between superintendent and employee, potential cost savings and financial benefits from an increase in employee performance and employee retention, and overall industry success.

Further research in this area would be useful to determine if an increase in transformational leadership behaviors result in additional employee outcomes. Similarly, more studies of this topic among a larger population would help determine how professionals from other agricultural disciplines rate their leadership behaviors and outcomes. In addition, future studies should utilize “observer” questionnaires, which allow a leader’s followers and peers to assess the leader’s leadership behaviors and outcomes. Finally, because Satisfaction was the lowest rated outcome, additional research should be conducted to determine if this outcome is ranked lower with other populations and if so, what steps (e.g., training) might be conducted to increase this outcome.

**Literature Cited**


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