

PREFERRED LEADERSHIP STYLE OF AGRICULTURAL EDUCATION TEACHERS: AN EXPRESSION OF EPISTEMOLOGICAL BELIEFS ABOUT YOUTH LEADERSHIP DEVELOPMENT

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Abstract

Supported by Bandura's social cognitive theory, this study examined the preferred leadership style of agricultural education teachers, and determined if preferred leadership style and leadership factors differed on selected personal characteristics. The accessible sample consisted of agricultural education teachers (N = 234) who taught in Minnesota during the 2005-2006 school year, and a 75.2% response rate was achieved. Data were collected using the Multifactor Leadership Questionnaire (MLQ), and this study concluded that agricultural education teachers are more transformational in their preferred leadership style in contrast to transactional and laissez-faire styles. Teachers exhibited individualized consideration the most often as a transformational leadership factor, and used contingent reward the most often as a transactional leadership factor. A statistically significant difference was not found in preferred leadership style on gender, years of teaching experience, and highest academic degree earned. However, two statistically significant differences were found pertaining to the factors comprising transformational leadership: male and female teachers differed on individualized consideration, and teachers with bachelor's degrees and those with master's degrees differed on intellectual stimulation.

Introduction

Leadership is a respected and highly sought after commodity by individuals and organizations (Northouse, 2004). Employers value leadership (van Linden & Fertman, 1998), and Maxwell (1998) argued that a person's career effectiveness was connected to his or her ability to lead and influence others. Bennis and Nanus (1985) contended that all people have leadership potential, while Hersey and Blanchard (1993) recognized that leadership looks different in various situations. In agricultural education, youth leadership development has been acclaimed as one of the three primary components of a total program, along with classroom instruction and experiential learning. Further, the mission of agricultural education is to prepare "students for

successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems" (National FFA Organization, 2006, p. 5). In support of this mission, community leaders credited their experiences in agricultural education with having assisted their leadership development and career success (Brannon, Holley, & Key, 1989).

Agricultural education teachers have been identified as having a major impact on students' leadership development (Butters & Ball, 2006). However, little is known about teachers' personal beliefs on youth leadership development and their preferred leadership style. Adding further support for this line of inquiry, Avolio and Bass (2004) argued that identifying and understanding one's personal leadership style is necessary in order to effectively develop leadership in

others. As such, this study sought to fill a gap in the literature (Connors & Swan, 2006) by determining the preferred leadership style of agricultural education teachers, arguably the most important person to assist youth in developing leadership through involvement in an agricultural education program.

Theoretical Framework

Adults' epistemological beliefs pertaining to leadership development play an important role when adults interact with youth and provide them with leadership opportunities. The premise of this study identified teachers' preferred leadership style as an outward expression of their personal epistemological belief about youth leadership development. As a result, Bandura's (1986) social cognitive theory served as the theoretical basis for this study. The components of this dynamic system interact as people have life experiences, which in turn shape their personal and career development. Bandura's social cognitive theory contends that *personal factors*, *environment*, and *behavior* interact to affect each other. The interrelationship among the variables means that personal factors can influence the environment and behavior, environment can influence personal factors and behavior, and behavior can influence personal factors and the environment. For example, a teacher who assists youth in developing leadership skills enters the relationship with epistemological beliefs about leadership development (personal factors), conducts leadership development activities in a school setting that may or may not nurture youth development (environment), and these interactions influence the attitude and possibly even the career commitment of the teacher (behavior).

The study of leadership has evolved from the identification of traits and characteristics, to investigating the complex relationship between leaders and followers (Bass, 1990; Northouse, 2004). While there are different theories that can be used to identify and classify leadership styles (Northouse), the researchers selected the transformational leadership paradigm to undergird this study. Transformational leadership was proposed by Burns (1978), and the model was further developed by Bass (1985) who identified transformational, transactional, and laissez-faire leadership styles. A transformational leadership style is when a leader is interested in helping transform people from followers into leaders (van Linden & Fertman, 1998). Transformational leaders value the participation and contribution of others, share leadership in the form of group power, and are open to delegation. The transformational leader is process-oriented, and the focus is on *being* a leader (van Linden & Fertman). According to Northouse (2004), "transformational leadership is concerned with the performance of followers, and also with developing followers to their fullest potential" (p. 174). In contrast, a transactional leadership style is contingent on a transaction or exchange between leader and follower that usually consists of a reward system. Transactional leaders value problem and solution identification, are product-oriented, and focus on *doing* leadership tasks (van Linden & Fertman). A transactional leadership style promotes taking charge of many traditional leadership functions, and making decisions in order to move the group forward, even if everyone has not been heard. Transactional leaders focus more on the outcomes, and less on the individual's needs and personal development (van Linden & Fertman). Bass (1997) argued that transformational and

transactional leadership styles compliment each other, provide a synergistic relationship that adds to a leader's effectiveness, and can result in performance beyond expectations (Aldoory & Toth, 2004).

Avolio and Bass's (2004) Full Range Leadership Model incorporates nine leadership factors, including five factors representing transformational leadership, three factors representing transactional leadership, and one factor representing laissez-faire leadership. In this model, transformational leadership is defined by five factors: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation and individualized consideration. Idealized influence is a factor that draws followers to the leader during interactions. In this process, followers are positively influenced by a leader who has high standards of moral and ethical behavior. Leaders that display idealized influence have a charisma about them and provide their followers with a sense of mission (Northouse, 2004). Idealized influence is both an impact and a behavior (Avolio & Bass, 2004), thus two leadership factors are necessary: *idealized influence (attributed)* and *idealized influence (behavior)*. *Inspirational motivation* is displayed by leaders who effectively communicate high expectations to followers and motivate them to commit to a shared vision of the organization (Northouse). *Intellectual stimulation* is displayed by a transformational leader when he or she supports followers in using their own creative and innovative problem-solving skills to deal with organizational issues. This type of leadership promotes followers to challenge their own beliefs and values as well as those of the leader (Northouse). *Individualized consideration* is represented by leaders who provide a supportive climate for their followers. Transformational leaders display individualized consideration when they act as coaches and mentors, and encourage followers to reach their own goals and potential (Northouse).

Contingent reward, management-by-exception (active), and management-by-exception (passive) are the three factors that

comprise transactional leadership. *Contingent reward* refers to the exchange that occurs between the leader and the follower, whereby the effort of followers is rewarded by the leader. In this process, the leader receives agreement from the followers on the expected outcomes as well as the return for work completed (Northouse, 2004). Management-by-exception is displayed by a transactional leader in two forms: active or passive. Corrective criticism, negative feedback and negative reinforcement are all characteristics of management-by-exception. In the *management-by-exception (active)* form, the leader closely monitors followers for mistakes, and then takes action by correcting with negative feedback. *Management-by-exception (passive)* is demonstrated when the leader intervenes when problems become serious and if standards have not been met.

The ninth factor in Avolio and Bass's (2004) Full Range Leadership Model is *laissez-faire* leadership, which is characterized as a hands-off approach and there is little effort to help followers grow. This factor is demonstrated when a leader relinquishes responsibility, delays decisions, and fails to follow up requests for assistance. The leader makes no attempt to help followers grow personally (Northouse, 2004).

Literature Review

Demography theory (Korac-Kakabadse, Korac-Kakabadse, & Myers, 1998) suggests that attributes such as age, tenure, occupation, gender, and ethnicity are compositional characteristics that influence interpersonal and group dynamics. Support for this theory comes from studies that found the personal characteristics of leaders exerted an influence on the outcomes and successes of an organization (Aldoory & Toth, 2004; Hambrick & Mason, 1984; Rosenbusch & Townsend, 2004). Therefore, the literature review focused on the selected personal characteristics germane to this study (i.e., gender, years of teaching experience, and highest academic degree

earned), and how these attributes are connected to leadership style.

Leadership Style and Gender

Research has been conducted since the 1970s to determine whether leadership style differs by gender, and the findings have been mixed. A number of studies have described men as having a tendency for transactional leadership, while women have been portrayed as more transformational (Bass, 1998; Bass, Avolio, & Atwater, 1996; Druskat, 1994; Giovanonni, 2001; Maher, 1997; Rosenbusch & Townsend, 2004). Male leaders were more likely to display transactional leadership through use of management-by-exception (active and passive), while women leaders engaged in more of contingent reward behaviors (Eagly, Johannesen-Schmidt, & van Engen, 2003). Women leaders were found to exhibit transformational leadership through individualized consideration more frequently than did men (Bycio, Hackett, & Allen, 1995; Maher), and Komives (1991) reported that female managers self-rated themselves significantly higher for intellectual stimulation than did their male counterparts. In contrast, other scholars have found no relationship between leadership style and gender. For example, D'Ambrosio (2000) and Komives found no gender differences in transformational and transactional leadership style ratings. Further, Bass (1998) found no difference between men and women leaders regarding contingent reward and laissez-faire leadership style.

Leadership Style and Years of Teaching Experience

Only one empirical research study was found that reported on the relationship of leadership style and years of teaching experience. Lord, De Vader, and Alliger (1986) posited that less experienced teachers were likely to exhibit a transformational leadership style. In related literature, mixed results were found regarding the relationship that leadership style had with tenure and job longevity. For example, Athanasaw (2003) reported that the leadership style of senior executives within the federal government differed as a function of years employed in

the government system. Likewise, Moore and Rudd (2006) determined that tenure in the Extension service was a predictor of both transformational and transactional leadership styles for chief Extension administrators in each state. In opposition, Spotanski and Carter (1993) found no significant difference in leadership style of university agricultural education leaders by years of experience in the leadership position. In a study conducted with community college presidents, it was reported that there was no relationship between leadership style and number of years at their present position (Wen, 1999).

Leadership Style and Highest Academic Degree Earned

Previous research was found that presented conflicting findings regarding leadership style and its relationship with highest academic degree. Moore and Rudd (2006) determined that the highest degree earned was a predictor of transactional leadership style among senior leaders in the Extension service. Disagreeing, Sykes (1995) concluded that the level of education beyond a bachelor's degree was not a significant influence on the leadership style of county Extension directors.

The agricultural education teacher is a key person in fostering the leadership development of students. Previous leadership studies in agricultural education have primarily been focused on youth. No study could be found that identified the preferred leadership style of agricultural education teachers, and the personal characteristics that are connected to leadership style.

Purpose and Objectives

The purpose of this study was to examine the preferred leadership style of agricultural education teachers in Minnesota. Additionally, this study sought to compare leadership style and leadership factors on the basis of selected personal characteristics. As a result, the following research objectives were addressed: (a) describe the preferred leadership style and leadership factors of teachers, and (b)

determine if the preferred leadership style and leadership factors of teachers differed on the selected personal characteristics of gender, years of teaching experience, and highest academic degree earned.

The following null hypotheses were tested to determine whether there were significant findings from the study:

- Ho₁ There is no statistically significant difference in teachers' preferred leadership style by gender.
- Ho₂ There is no statistically significant difference in teachers' leadership factors by gender.
- Ho₃ There is no statistically significant difference in teachers' preferred leadership style by years of teaching experience.
- Ho₄ There is no statistically significant difference in teachers' leadership factors by years of teaching experience.
- Ho₅ There is no statistically significant difference in teachers' preferred leadership style by highest academic degree earned.
- Ho₆ There is no statistically significant difference in teachers' leadership factors by highest academic degree earned.

Methods and Procedures

This study utilized a comparative survey research design (Krathwohl, 1998) to collect and analyze the data. The target population for the study was agricultural education teachers in Minnesota. Based on demographic data, the researchers determined that the respondents were a representative time and place sample of the population (Oliver & Hinkle, 1982), and therefore inferential statistics were utilized to analyze the data. The accessible sample consisted of agricultural education teachers ($N = 234$) who taught in Minnesota during the 2005-2006 school year. The Minnesota Department of Education provided the sampling frame for the study.

The data collection instrument was comprised of two sections. The first section was the Multifactor Leadership

Questionnaire (MLQ) (Bass & Avolio, 1995), which was utilized to gather leadership style data from participants. The MLQ 5X-Short Form consisted of 36 Likert-type questions that represented nine factors across three leadership styles: transformational, transactional, and laissez-faire. The MLQ is a reliable instrument and has estimates of internal consistency that range from .74 to .94 for the total items and for each of the factor scales (Avolio & Bass, 2004). This study achieved a post hoc Cronbach's alpha of .80 for the total items, .88 for the 20 items representing transformational leadership, .58 for the 12 items representing transactional leadership, and .49 for the four items representing laissez-faire leadership. In the second section of the questionnaire, participants were asked to provide demographic information. The data collection instrument was reviewed for content validity by an expert panel from across the United States. Panel members were selected for their research focus on leadership and/or research methodology expertise. Several changes were made to the instrument based on the feedback of the expert panel.

A modified version of Dillman's Tailored Design Method (2000) guided the data collection process. An e-mail pre-notice was sent to teachers prior to mailing the cover letter, questionnaire, and self-addressed, stamped envelope. After the first mailing, an e-mail was sent to teachers thanking them for their participation and asking for questionnaires from those teachers who had not yet responded. A second mailing and follow-up e-mail was completed in an effort to gain a representative response rate. To control for nonresponse error, the researchers compared MLQ and demographic information of on-time to late respondents (Miller & Smith, 1983). No significant differences were found, thus increasing the generalizability of the results.

The Statistical Package for the Social Sciences (SPSS) version 14.0 was used to compile and compute the data. Descriptive statistics, independent samples *t* tests, and analysis of variance (ANOVA) were utilized to analyze the data. The data were checked for normality, and Levene's test for equality

of variances was conducted to assure homogeneity of variance. To test null hypotheses three and four, the researchers developed categories for years of teaching experience based on teacher development models (Fessler & Christensen, 1992) and previous studies from the literature review (Athanasaw, 2003; Spotanski & Carter, 1993). An alpha level of .05 was established a priori for testing the hypotheses.

Findings

A total of 176 agricultural education teachers returned the questionnaire, which represented a 75.2% response rate. The mean age of teachers was 39 ($SD = 10.7$), with a range of 22 to 61 years. Respondents had taught agricultural education an average of 14 years ($SD = 10.1$), with a range of 1 to 36 years. An average of 160 unduplicated students ($SD = 144$) were enrolled in

respondents taught, with a range of 13 to 850 students. The mean size of an FFA chapter was 57 members ($SD = 34$), with a range of 0 to 207 members. An average of 1.4 teachers ($SD = .7$) comprised an agricultural education department, with a range of .3 to 3.5 teachers.

The first objective was to describe the preferred leadership style and leadership factors of agricultural education teachers. As shown in Table 1, teachers had mean scores of 3.07 ($SD = .39$) for transformational leadership, 2.04 ($SD = .35$) for transactional leadership, and 1.03 ($SD = .58$) for laissez-faire leadership. Individualized consideration ($M = 3.35$, $SD = .42$) was the highest mean score for a factor within transformational leadership, while contingent reward ($M = 3.14$, $SD = .45$) was reported as the highest mean score for a factor within transactional leadership.

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Table 1

Preferred Leadership Style of Teachers (n = 176)

Leadership style and factors	<i>M</i>	<i>SD</i>
Transformational	3.07	.39
Individualized consideration	3.35	.42
Inspirational motivation	3.16	.47
Idealized influence (attributed)	3.00	.46
Idealized influence (behavior)	2.98	.58
Intellectual stimulation	2.84	.55
Transactional	2.04	.35
Contingent reward	3.14	.45
Management-by-exception (active)	1.61	.66
Management-by-exception (passive)	1.37	.59
Laissez-faire	1.03	.58

Note. Scale: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently, if not always

The second objective sought to determine if the preferred leadership style and leadership factors of teachers differed on the selected personal characteristics of gender, years of teaching experience, and highest academic degree earned. The results are displayed in Tables 2, 3, and 4. Null hypotheses one and two were tested by conducting an independent samples *t* test. As shown in Table 2, there was not a

statistically significant difference in leadership style between male and female teachers. As a result, null hypothesis one failed to be rejected. However, when comparing leadership factors by gender, a statistically significant difference was found between male and female teachers on individualized consideration ($t = -2.09, p .05 = .04$). Therefore, null hypothesis two was rejected.

Table 2
Preferred Leadership Style of Teachers by Gender

Leadership style	Male			Female			<i>t</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Transformational	134	3.04	.40	42	3.16	.35	-1.64	.10
Transactional	134	2.05	.35	42	2.01	.37	.66	.51
Laissez-faire	133	1.03	.58	42	1.02	.62	.17	.86

Note. Scale: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently, if not always

ANOVA was utilized to test null hypotheses three and four. Statistically significant differences were not found for leadership style on years of teaching

experience (Table 3), and none were found when comparing leadership factors by years of teaching experience. Therefore, null hypotheses three and four were not rejected.

Table 3
Preferred Leadership Style of Teachers by Years of Teaching Experience

Leadership style	Less than 5 years			6 to 15 years			Over 15 years			<i>F</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Transformational	45	3.07	.38	56	3.04	.37	74	3.09	.41	.24	.79
Transactional	45	1.99	.38	56	2.07	.34	74	2.06	.35	.85	.43
Laissez-faire	45	1.06	.57	56	1.12	.65	73	.95	.54	1.53	.22

Note. Scale: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently, if not always

Null hypotheses five and six were tested through use of an independent samples *t* test. As revealed in Table 4, there was not a statistically significant difference between teachers with bachelor's degrees and those with master's degrees on leadership style. Therefore, null hypothesis five failed to be rejected. However, when comparing

leadership factors by highest academic degree, a statistically significant difference was found between teachers with bachelor's degrees and those with master's degrees on intellectual stimulation ($t = -2.62, p_{.05} = .01$). As a result, null hypothesis six was rejected.

Table 4
Preferred Leadership Style of Teachers by Highest Academic Degree Earned

Leadership style	Bachelor's degree			Master's degree			<i>t</i>	<i>p</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>		
Transformational	108	3.03	.40	68	3.12	.38	-1.47	.14
Transactional	108	2.07	.36	68	2.00	.35	1.37	.17
Laissez-faire	107	1.04	.56	68	1.01	.62	.29	.77

Note. Scale: 0 = not at all, 1 = once in a while, 2 = sometimes, 3 = fairly often, 4 = frequently, if not always

Conclusions, Implications, and Recommendations

Supported by Bandura's social cognitive theory (1986), the premise of this study identified teachers' preferred leadership style as an outward expression of their personal epistemological belief about youth leadership development. Arguably, the teacher is the most important person to assist youth in developing leadership through involvement in an agricultural education program. As such, this study sought to fill a gap in the literature by determining the preferred leadership style of agricultural education teachers, and supports the logic that understanding one's personal leadership style is necessary to effectively develop leadership in others (Avolio & Bass, 2004). Readers are cautioned to limit the generalizability of the results to agricultural education teachers in Minnesota, and it is recommended that this study be extended to a larger population of agricultural education teachers throughout the United States.

This study concluded that agricultural education teachers are more transformational in their preferred leadership style in contrast to transactional and laissez-faire styles. Specifically, this study found that teachers were engaging in transformational leadership behaviors *fairly often*, were engaging in transactional leadership behaviors *sometimes*, and were engaging in laissez-faire behaviors *once in a while*. No previous research in agricultural education was found that had investigated the preferred leadership styles of teachers, however the findings do support research that found a similar pattern of preferred leadership style exhibited by preservice teachers (Harms & Knobloch, 2005), and by Extension Service leaders (Moore & Rudd, 2006). While recognizing that transformational and transactional leadership styles compliment each other (Bass, 1997), research has shown that transformational leadership behavior is correlated with preferred organizational outcomes such as employee and follower motivation, performance, and satisfaction

(Brown, Birnstihl, & Wheeler, 1996; Yukl, 1999); persuasive abilities (Crawford & Strohkirch, 2004); and the ability to adapt in changing times (Bass, 1998). As such, an implication of this study is that the transformational leadership style preferred by teachers might be advantageous when confronted with issues in the school environment (e.g., changes in educational policy and reform initiatives, school funding, student demographics). Further, Ogawa and Bossert (1995) conceptualized transformational leadership as an organizational quality that can positively influence the school system and culture.

It appears that agricultural education teachers are exhibiting individualized consideration the most often as a factor within transformational leadership. As noted by Avolio and Bass (2004), leaders exhibit this factor by treating individuals uniquely, providing a supportive climate, listening carefully to the individual needs of followers and group members, and by attempting to maximize their associates' full potential. Further, this type of leader is supportive of individual growth, and assists individuals in becoming fully actualized. The implication is that individualized consideration is likely being developed by agricultural education teachers as they provide individual leadership development opportunities for students through the FFA, and as they assist each student in gaining experiential learning through supervised agricultural experience (SAE). Further, this study identified that teachers were using contingent reward the most often as a factor within transactional leadership. Contingent reward "refers to an exchange process between leaders and followers in which effort by followers is exchanged for specified rewards" (Northouse, 2004, p. 178).

This study concluded that a significant difference was not found in preferred leadership style on gender, years of teaching experience, and highest academic degree earned. These findings are in support of previous research (D'Ambrosio, 2000; Komives, 1991; Sykes, 1995), and are opposed to Lord et al.

(1986). However, two significant differences were found pertaining to the factors comprising transformational leadership. The first was that male and female teachers differ on individualized consideration, with females scoring higher (Bycio et al., 1995; Maher, 1997). This finding would indicate that female teachers are more adept at attending to and supporting the individual needs of followers and group members. Gender socialization (Cooper, 1997; Portello & Long, 1994) suggests that gender differences in leadership exist due to individuals manifesting stereotypical traits and behaviors that are not readily amenable to change. Men are typically described as being independent, objective, assertive, competitive, and logical, whereas stereotypically expressive characteristics attributed to women include emotionality, nurturance, and sensitivity to others. The second significant finding was that teachers with master's degrees scored higher than those with bachelor's degrees on intellectual stimulation. Avolio and Bass (2004) describe this type of leader as being skillful at helping others to think about old problems in new ways; having the ability to conceptualize and articulate a group vision; and are likely to exhibit intellectual stimulation through critical thinking, questioning the status quo, and in articulating a creative approach to accomplishing the organization's mission. Teachers who exhibit intellectual stimulation likely challenge students and organizational members to be creative, innovative, and to utilize critical thinking and problem-solving skills (Northouse, 2004).

As a result of the findings from this study and supported by career development theory (Fessler & Christensen, 1992), it is recommended that continuing professional education be provided to agricultural education teachers on leadership topics. A logical starting point is to assist teachers in gaining a better understanding of their preferred leadership style, and how this belief influences the relationship they have with organizational members and youth.

Continuing professional education will allow teachers to become more aware of different leadership styles, and to further develop the factors comprising transformational leadership.

This exploratory study was conducted to examine the epistemological beliefs that teachers have about youth leadership development. Whereas teachers' preferred leadership style was represented as a personal factor in Bandura's social cognitive theory (1986), there are other personal factors that should be examined. For example, it is likely that a teacher's self-efficacy regarding youth leadership development has an important role in the theory. The other two variables in the model, environment and behavior, should be studied in subsequent research to gain a better understanding of the interactions and relationships between the variables. It is recommended that leadership research be conducted that will determine the variables in Bandura's social cognitive theory that are the best predictors of youth leadership development.

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