

THE ATTITUDES AND PERCEPTIONS OF HIGH SCHOOL ADMINISTRATORS TOWARD AGRICULTURAL SCIENCE TEACHERS IN TEXAS

Michelle Hinkson
Lance Kieth
Texas Tech University

Abstract

Attitudes and perceptions are key elements in the relationships between administrators and agricultural science teachers. Perceptions refer to an individual's current appraisal of an object, or program, as experienced in the immediate situation. Attitudes guide these appraisals, and current research states that attitudes do influence behavior (Luzar and Cosse, 1998). The major purpose of this study was to determine the attitudes and perceptions of high school administrators toward agricultural science teachers and agricultural science programs in Texas. A secondary purpose was to compare the administrators' perceptions to the agricultural science teachers' perceptions. The target population of this study was agricultural science teachers and high school administrators who were directly in charge of agricultural science programs in Texas. Administrators' attitudes and perceptions are influenced by what they see and hear. If the agricultural science teacher maintains a good level of communication with the administrator and keeps them informed regarding the agricultural science program and FFA events, the attitudes and perceptions should be good. If the agricultural science teacher does not make an effort to communicate, the administrator is left on their own to develop attitudes and perceptions, which will translate into knowledge and beliefs. The recommendations support strong communications between the agricultural science teacher and the administrator to help maintain and improve attitudes and perceptions, and the agricultural science teacher should take the active role of initiating communication with the administrator.

Introduction

A school is an organization of a specific type called a "social system." This means it is a set of components that interact to meet a goal held by people together (Fiordo, 1990). Teacher-principal relationships can affect performance outcomes (Thomas, 1997). How well they communicate and how positive their attitudes and perceptions are can certainly influence the quality of a school environment. With this in mind, the question arises how to improve and maintain good relations between these groups, specifically between administrators and agricultural science teachers in Texas.

To fully examine the relationship and discover the best ways to improve them, it is necessary to look at the attitudes, perceptions and communications between high school administrators and agricultural science teachers in Texas.

Literature Base

Attitudes and perceptions are key in the relationships between administrators and agricultural science teachers (Jewell, 1995). Perceptions refer to an individual's current appraisal of an object, or program, as experienced in the immediate situation. Attitudes guide these appraisals, and current research states that attitudes do influence behavior (Luzar and Cosse, 1998).

If a counselor or other administrator considers agricultural education to be moderately important, they may enroll students in agricultural education. However, if a counselor or principal does not have a good attitude or perception of agricultural education, they might not inform students of ways to enroll in agricultural education to help satisfy their graduation requirements. A study in Idaho found that 65% of state supervisors and 88% of secondary teachers agreed that many students were unable to enroll in agriculture education because of high school graduation requirements (Connors, 1998).

Jewell (1995) stated that school administrators have the authority and influence in programs and curricula at the school and school system levels; changes in agricultural education require their approval and support. Without that support, programs in those schools will not develop or grow.

Teacher-principal relationships can affect performance outcomes (Thomas, 1997). The key in this is communication of both goals and results and properly informing all parties of the criteria by which judgments will be made (Fiordo, 1990). The principal frequently monitors progress of both pupils and programs through interpretation of test results and observation of classrooms (Evers and Bacon, 1994). The principal has a critical effect on school climate and productivity by interactions with teachers. The relationship between the principals and teachers is considered to have the greatest effect on the quality of life in a school (Barth, 1984). Principals need to be aware of their role in fostering collegial, empowering relationships with all others in their school community (Petersen and Beekley, 1997).

Purpose and Objectives

The major purpose of this study was to determine the attitudes and perceptions of high school administrators toward agricultural science teachers and agricultural science programs in Texas. A secondary purpose was to compare the administrators' perceptions to the agricultural science teachers' perceptions as they relate to the their school's agriscience program.

The following research questions were developed to help provide a sound basis for this study.

1. What were the general demographic backgrounds of high school administrators and agricultural science teachers in Texas?
2. What were the attitudes toward agricultural science teachers held by high school administrators?
3. What were the attitudes of agricultural science teachers compared with the administrators' responses?
4. What were the attitudes toward agricultural science programs held by high school administrators?
5. What were the attitudes of agricultural science teachers compared to attitudes held by high school administrators toward the agricultural science program?
6. What were the types and channels of communications between high school administrators and agricultural science teachers in Texas?
7. How did communication affect the attitude of high school administrators toward the agricultural science teacher and agricultural science program?
8. What relationships exist between the variables?

Methods/Procedures

The target population of this study was agricultural science teachers and high school administrators in Texas who were directly in charge of agricultural science programs in Texas. In 1998, there were 1,460 agricultural science teachers in Texas (Texas FFA Association, 1998). Considering the costs and time requirements for a census of all agricultural science teachers in and administrators in Texas, it was determined that the population needed to be limited.

The sample consisted of 102 agricultural science teachers and 102 high school administrators from the state of Texas. The sample was a proportional random sample stratified by FFA areas. Agricultural science teachers and their immediate supervising administrators were randomly chosen based on the percentage of FFA chapters in each area in relation to that area's percentage of the total number of agricultural science teachers for Texas. Once the percentage of teachers was figured in relation to the entire state, it was then multiplied by .10 to give the exact number of teachers to be chosen from that area. Then that number was rounded upward, so that oversampling would help the response rate. Using suggestions from Borg and Gall (1994), it was a determined that the minimum response rate should be 70%.

There were 73 administrator questionnaires returned, for a response rate of 71.5%. There were 85 teacher surveys returned for an 83% response rate.

In an effort to control for nonresponse error, major portions of the Total Design Method (TDM) developed by Dillman (1978) were adopted for the cover letter and questionnaire. The instrument for the study was a five-part, mailed questionnaire. The survey was developed using a previous survey by Robert A. Martin, Emmanuel Nwozuzu, and Amy Gleason of Iowa State University (1985), a survey by Susanne M. Hunter et al. (1977), and questions designed by the researcher through questioning agricultural science teachers during a focus session in March 1998.

Section I dealt with attitudes and perceptions of the agricultural science program by using a four-point Likert-type scale that measured the level of agreement with given statements. There were no negative statements used, and a four signified strong agreement, a three indicated agreement, a two indicated disagreement, and a one indicated strong disagreement. Section II rated the agricultural science teacher on a scale of 1 to 10, with 1 being negative and 10 being positive. Section III included questions about communication using the 1 through 10 rating scale. One indicated a negative response, and 10 indicated a positive response. Section IV asked for demographic information, and section V allowed space for respondents to further express or add comments regarding the survey.

Survey instrument responses were transferred to coding sheets, which were used to construct data files. Statistical analysis of the data files was completed using SPSS for the Macintosh. Descriptive statistics were used to summarize the data pertaining to: (a) the agricultural science program, (b) the agricultural science teacher, (c) the communication channels, (d) the communication process, and (e) demographics. In order to determine if there was any difference in high school administrator responses and agricultural science teacher responses and whether the administrators' demographics had significance in affecting their responses, analysis of variance between

administrator responses and agricultural science teacher responses was used. In addition, a correlational matrix was developed to determine if significant relationships existed between selected variables.

Findings

Demographic Information

The majority of administrators (86.1%) were principals (Table 1). Approximately one of ten (9.7%) were career and technology directors. Two respondents chose other and listed their title as assistant principal. No superintendents were represented, and there was one non-response to the question.

Table 1.

Administrator Title		
Title	Frequency	%
**Principal	62	86.1
Career and Technology Director	7	9.7
Superintendent	0	0
*Other	2	2.7
Total	71^a	100.0

* Assistant Principal

** Two indicated being both principal and career and technology directors ^a=1 missing response

Respondents were asked to indicate how many years they had served as an administrator. Year groups were broken into six sections: less than one year, one to three years, four to seven years, eight to 11 years, 12 to 15 years, and 15 years or more. Three of the 72 administrators had been an administrator for less than one year (4.2%). The largest years of service for administrators was the "15 years or more" range with 18 respondents (25.0%). There were 15.3% of administrators in the ranges of one to three years and 12 to 15 years. In the range of four to seven years, there were 19.4%. In the range of eight to 11 years, there were 15 administrators for a total of 20.8%.

According to their responses, the most common response (41.7%) of administrators reported being athletic coaches prior to their current positions. Following this response was classroom teaching at 27.8%. Seven administrators reported being former agriscience teachers (9.7%). Fifteen administrators chose "other" as their position prior to their current administrative position (20.8%).

Responses to the question, "Were you ever a member of FFA?" revealed that less than one-half of administrators (38.9%) reported being members of FFA. The large majority of agricultural science teachers reported being former members of FFA, while 7.3% did not. In response to the question "Have your children ever been members of the FFA?", administrators reported that the majority (62.5%) of their children had not been members of the FFA. Three indicated their children were not old enough or that they did not have children (4.2%), and one-third responded that their children had been FFA members. Slightly over half of agricultural science teachers' children were members of the FFA with 53.7%.

Over one-half of the administrators responded that they had been members or volunteers of 4-H or other agriculturally-related group. Only 38.9% of administrators indicated that their children were members or volunteers for 4-H or other agriculturally related group. Just under one-half of the agricultural science teachers reported their children participated in other agriculturally-related groups.

Slightly over one-third of the administrators stated they had only worked with agriscience teachers for one to five years (34.7%). The next highest choice was six to 10 years (23.6%), and then, 11 to 15 years (22.2%). Seven administrators responded they had worked with agriscience teachers for 16 to 20 years, and seven administrators responded they had worked with agriscience teachers for over 20 years.

Attitudes Toward the Agricultural Science Teacher

Administrators were asked to respond to thirteen statements regarding the agricultural science teacher(s)' job performance. They were asked to rate these responses on a scale of 1 to 10, with 1 being a negative response and 10 being a positive response. Teachers were also asked to rate themselves on the statements. The mean scores of each group were compared at the .05 level to see if there were any significant differences. Only two statements were found to differ significantly at the .05 level (Table 2). One was "The agriscience teacher is able to choose her/his own courses or course offerings" (.00). The other statement was "The agriscience teacher is able to fairly evaluate student performance."

Table 2.
Perceptions of the Agricultural Science Teacher by Administrators and Teachers

Statements	Mean		
	Administrator	Teacher	All
The agriscience teacher is willing to work longer hours to improve and foster a superior program.	8.8	9.0	8.9
The agriscience teacher cooperates with other faculty and staff.	8.7	9.0	8.8
The agricultural science teacher follows the school's chain of command.	8.5	8.8	8.7
The agriscience teacher is professional.	8.4	8.8	8.6
The agriscience teacher is able to choose her/his own courses or course offerings.	8.0 ^a	9.0 ^a	8.5
The agriscience teacher is able to fairly evaluate student performance.	8.1 ^a	8.7 ^a	8.4
Rate the agriscience teacher in terms of serving as a FFA advisor.	8.4	8.4	8.3
The agricultural science teacher helps students with SAEPs.	7.7	8.3	8.0
The agriscience teacher is providing a good education to students.	7.8	7.8	7.8
Rate the agriscience teacher in terms of training teams for CDEs.	7.5	7.8	7.7
Rate the agriscience teacher's ability to help develop school rules and regulations.	7.4	7.9	7.7
The agriscience teacher places equal emphasis on all areas of his/her program.	7.5	7.8	7.7
Rate the agriscience teacher at training teams for LDEs.	7.5	7.6	7.6

^a Differed significantly at the .05 level.

Attitudes and Perceptions of the Agricultural Science Program

The fourth research question determined the attitudes and perceptions of administrators toward the agricultural science program. Administrators and agriscience teachers were asked to rate 12 statements using a four-point Likert-type scale (4=strongly agree and 1=strongly disagree). The mean scores of administrator and agriscience teacher responses were compared at the .05 level to determine if there were any significant differences (Table 3).

Table 3
Perceptions of the Agricultural Science Program by Administrators and Teachers

Statements	Mean		
	Administrator	Teacher	All
The agriscience program is an important part of the school	83.7	3.7	3.7
The agriscience program is an important part of the community.	3.7	3.7	3.7
The high school agriscience program provides equal opportunities for all high school students.	3.5	3.6	3.6
The administrator's attendance is important at agricultural science activities and FFA events.	3.4	3.4	3.4
There are a number of agricultural science activities, other than FFA activities, outside of the classroom and laboratory that are co-curricular, such as field trips.	3.2	3.4	3.3
The administrator recognizes those students in the agricultural science program and FFA for their achievements, honors, and awards.	3.6 ^a	3.1 ^a	3.3
The administrator recognizes those students in the agricultural science program and FFA for their achievements, honors, and awards.	3.6 ^a	3.1 ^a	3.3
The administrator knows the duties of a FFA advisor.	3.4 ^a	3.1 ^a	3.3
The agriscience program places enough emphasis on actual classroom teaching.	3.12 ^a	3.34 ^a	3.2
The administrator knows what a LDE is.	3.18 ^a	2.87 ^a	3.0
The administrator knows what a CDE is.	3.1	2.8	2.9
The administrator knows what a SAEP is.	2.9	2.8	2.8

^a Differed significantly at the .05 level.

Five statements were found to differ significantly at the .05 level. First was "The administrator places as much interest on the agricultural science program as other school programs." The next statement was "The administrator recognizes those students in the agricultural science program and FFA for their achievements, honors, and awards." The statement "The administrator knows the duties of a FFA advisor" also differed significantly. The statement "The agriscience program places enough emphasis on actual classroom teaching" was rated differently by teachers and administrators. The final statement to show significant difference at the .05 level was "The administrator knows what an LDE is."

Channels of Communication

Research question six focused on the channels administrators use to communicate with agricultural science teachers. The five channels included were "Face to Face," "Staff Meetings," "Telephone," "E-Mail/Memo," and "Other." Administrators and teachers were asked to choose the types of communication channels used by administrators at their schools. The mean scores were then compared to see if any significant differences existed at the .05 level. Only one channel of communication was found to have a significant difference at the .05 level. That was "E-Mail/Memo." Forty-one administrators responded that e-mail/memo was a channel of communication utilized (56.2%). Only 25 teachers indicated that e-mail/memo was used (30.5%). The most highly used channel of communication was "Face to Face", with a mean percentage of 98.1%. Next was "Staff Meetings" at 74.8% and "Telephone" at 66.5%. The lowest rated channel of communication was "Other" at 5.8%.

Communication Perceptions

The seventh research question asked if communication affected the attitudes toward the agricultural science teacher and program. Respondents were asked to rate six statements on a scale of one to ten, with one being the lowest or worst and ten being the highest or best. The mean scores were then compared at the .05 level to test for significant differences (Table 4). Two statements showed significance at the .05 level between administrators and agricultural science teachers. One was "The administrator is willing to allow the agriscience teacher to visit his/her office if they have a problem with their program." The other statement was "The agriscience teacher informs the administration of days that will be missed due to extracurricular activities."

Table 4

Communication Perceptions by Administrators and Teachers

Statements	Mean		
	Administrator	Teacher	All
Good communication between the administrator and the agriscience teacher is important.	9.6	9.7	9.7
The administrator is willing to allow the agriscience teacher to visit his/her office if they have a problem with their program.	9.7 ^a	9.1 ^a	9.4
The agriscience teacher informs the administration of days that will be missed due to extracurricular activities.	8.7 ^a	9.2 ^a	9.0
The agriscience teacher informs the administrator of awards and recognition the agriscience program or FFA chapter has received.	8.4	8.6	8.5
The administrator is a good listener.	8.2	8.6	8.4
The agriscience teacher is a good listener.	8.3	8.2	8.2

^a Differed significantly at the .05 level.

Relationships Between Variables in the Study

The final objective of this study was to determine what relationships exist between the variables. A correlation matrix was developed to determine initial associations between the administrators' demographic variables in the study and the rating of the importance of the school program. None of the demographic variables were significantly related to the rating of the importance of the school program.

Conclusions/Recommendations

Conclusions

The following conclusions are based on interpretations of data presented in the study and are restricted to the populations surveyed. They also are subject to the limitations outlined in Chapter I of the study. The conclusions are as follows:

1. The large majority (86.1%) of administrators in charge of agricultural science programs in Texas are principals.
2. Over one-half of agricultural science teachers in Texas have been in this position for over 15 years. Only 25% of administrators have been involved in their positions for over 15 years.
3. Most administrators (87.5%) and agricultural science teachers (93.9%) in Texas are male.

4. Just under one-half of the administrators are former athletic coaches (41.7%), and only 9.7% are former agriscience teachers.
5. Most of the agriscience teachers are from rural backgrounds (64.6% farm or ranch and 17.1% rural but not farm or ranch). Slightly over one-half of the administrators are from rural backgrounds (37.5% farm or ranch and 15.3% rural but not farm or ranch).
6. Most agricultural science teachers are over 30 but under 50 years of age (64.6%). Most administrators are between the ages of 40 and 59 (76.4%).
7. Nearly all agriscience teachers hold a degree in agriculture or a closely related field (98.8%); the majority of administrators do not (76.4%).
8. Most agricultural science teachers were members of FFA (92.7%); most administrators were not (61.1%).
9. Agricultural science teachers' children tend to join FFA (53.7%). Only about one-third of administrators' children tend to join FFA (33.3%).
10. Agricultural science teachers also seemed to be involved in agriculturally- related groups other than FFA, such as 4-H or Young Farmers (87.7%). Of administrators, slightly over half (55.6%) also participated in agriculturally related groups, such as 4-H and Young Farmers.
11. Under one-half of agriscience teachers' children participated in agriculturally- related groups (46.3%). Of administrators, 38.9% responded that their children participated in agriculturally-related groups.
12. Most administrators have worked with agriscience teachers for less than 16 years (80.5%).
13. Administrators and agriscience teachers enjoy their jobs, with no respondents choosing disagree or strongly disagree.
14. Administrators have good attitudes and perceptions of the agriscience teachers, but administrators and teachers disagree that agriscience teachers are able to choose their own courses and offerings and on the agriscience teachers ability to fairly evaluate students.
15. The administrators had very good attitudes and perceptions of the agricultural science program.
16. Administrators rated themselves higher regarding their knowledge of LDEs, CDEs, and SAEPs in comparison to what agricultural science teachers perceived the administrator's knowledge to be.
17. Agriscience teachers indicated that administrators did not recognize students in the agricultural science program as much as administrators indicated they did.
18. Administrators and agriscience teachers talk face-to-face and at staff meetings the most, and administrators and agriscience teachers agree that good communication is important, but there was significant difference on the statement regarding that the administrator's door was always open to agricultural science teachers.
19. There was a significant difference on the statement regarding the agricultural science teachers informing administrators about days to be missed due to extracurricular activities.

Recommendations

The following recommendations have been made by the investigator as a result of having made this study:

Agricultural science teachers need to communicate all aspects of the agricultural science program to administrators. Administrators felt they had fairly good knowledge of the agricultural science program, but agriscience teachers slightly disagreed. Therefore, it is the teacher's responsibility to insure that the administrator has the correct information regarding the program, especially LDEs, CDEs, SAEPs, and the duties of a FFA advisor. Most of the administrators were not members of FFA and did not have children in FFA; therefore, their only knowledge of the program comes from the teacher.

1. The agricultural science teacher needs to communicate with administrators regarding the uses of laboratory and co-curricular experiences. Administrators rated agriscience teachers slightly lower regarding actual classroom teaching and evaluating students. By explaining why the laboratory is important in agricultural education, teachers can help the administrators understand why the emphasis is not always on actual classroom teaching.
2. Agricultural science teachers should send written invitations to administrators regarding upcoming FFA and agricultural science activities and events. Administrators and agricultural science teachers agreed the administrators' attendance is important at these events. To insure that there is no confusion regarding the message, putting it in writing and hand delivering it can keep the details of the event clear, while indicating that his/her presence is desired. Agriscience teachers should also invite administrators to participate in FFA events and agricultural science activities. This will help communicate the agriscience teachers' desire for the administrator to be there, and it will help the administrator to feel welcome.

3. Agricultural science teachers should utilize the summer months to put FFA events and agricultural science activities on the school calendar. Also, they should submit tentative summer schedules to administrators, to explain what projects or plans they have for the summer. This will help protect and promote extended contracts.
4. The agricultural science teacher needs to inform the administrator of all awards and recognition the FFA chapter or agricultural science program has received. This can be accomplished through face to face communication, phone calls, staff meetings, or e-mails/memos. If the agriscience teacher does not inform the administrator, they will not be able to recognize those students.
5. There needs to be more research on the issue that administrators do not feel that agricultural science teachers spend enough time on actual classroom teaching.
6. There needs to be further research on how agricultural science teachers evaluate student performance, and why there is a significant difference between the two groups regarding the teachers' ability to fairly evaluate student performance.
7. There needs to be further research on the issue of teachers communicating electronically, either via e-mail or distance education.
8. There needs to be further research on why there is a significant difference between the administrator's perception of an open-door policy and agricultural science teachers' perceptions of an open-door policy.
9. There needs to be further research regarding why there is a significant difference between the two groups concerning agricultural science teachers choosing their own courses or course offerings.
10. Teacher education and in-services programs in Texas should prepare agriscience teachers to communicate with administrators. This can be done by demonstrating how to negotiate contracts, how to explain all aspects of the agricultural science program, or why agricultural education is important.

References

- Barth, R. (1984). Between teacher and principal. Principal 63, 5
- Borg, W.R. & Gall, M.D. (1994). *Educational Research: An introduction*, (6th ed.). White Plains, NY: Longman Publishers.
- Connors, J. J. (1998). A Regional Delphi Study of the Perceptions of NVATA, NASAE, and AAAE Members on Critical Issues Facing Secondary Agricultural Education Programs. *Journal of Agricultural Education*, (Vol. 39, No. 1.) 37-47.
- Dillman, D. A. (1978). *Mail and Telephone Surveys*, New York, NY: John Wiley and Sons.
- Evers, J. W. & Bacon, T.H. (1994, November). *Staff Perceptions of Effective School Components as a Means to School Improvement and Accountability*, (Evaluative/Feasibility Report).
- Fiordo, R.A. (1990). *Communication in Education*, (pp. 3, 41, 42, 225, 226, 228, 229), Calgary, Alberta: Detsling Enterprises, Ltd.
- Hunter, S. (1977, August). Survey of Secondary School Perceptions. (Research Report) (ERIC Document Service Reproduction No. ED 199 893)
- Jewell, L.R. (1995). Perceptions of Secondary School Principals Toward Agricultural Education. *Proceedings of the National Agricultural Education Research Meeting*.
- Luzar, E. J. & Cosse', K.J. (1998). Willingness to Pay: The Attitude-Behavior Relationship in Contingent Valuation. *Journal of Socio-Economics*, Vol. 27 (3) 427-444.
- Martin, R. A., Nwozuzu, E. & Gleason, A. (1986, Spring). Perceived Communications and Support Linkages of High School Principals and Vocational Agriculture Teachers. *Journal of the American Association of Teacher Educators* Vol. 27 (1) 18-26.
- Peterson, G. & Beekley, C.X. (1997, March). School Principals' Understanding of Mutual Responsiveness in Effective Leadership. (Research Report 143). Bowling Green, Ohio: Bowling Green State University. (ERIC Document Reproduction Service No. ED 408 706)
- Texas FFA Association (1998). Texas FFA Past and Present Facts, Mission, and Motto. [On-line] Available: <http://www.txaged.org/ffa-fact.html>.
- Thomas, V. (1997). What Research Says about Administrators' Management Style, Effectiveness, and Teacher Morale. (Report No. ERIC-41-1569), 4-10