

**PROGRAM, RESEARCH MANUSCRIPT ABSTRACTS,  
AND DISCUSSANT'S COMMENTS**

**2005 AAAE SOUTHERN REGION CONFERENCE**



**Hosted by  
School of Human Resource Education and Workforce Development  
College of Agriculture  
Louisiana State University**

**February 5-8, 2005 – Little Rock, Arkansas  
The Peabody Little Rock Hotel**

**AMERICAN ASSOCIATION FOR AGRICULTURAL EDUCATION  
SOUTHERN REGION CONFERENCE**

**2005 HOST: LOUISIANA STATE UNIVERSITY**

*February 5-9, 2005  
The Peabody Hotel - Little Rock, Arkansas*

**AAAE Southern Region Conference Officers**  
President: Joe W. Kotrlík, Louisiana State University  
Vice-President: Randol Waters, University of Tennessee  
Secretary: Tom Dobbins, Clemson University

**American Association for Agricultural Education (AAAE) Southern Region Officers**  
Vice-President: James Smith, Texas Tech University  
Alternate Vice-President: Adam Kantrovich, Morehead State University  
Secretary: Randol Waters, University of Tennessee

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**SATURDAY, FEBRUARY 5**

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**4 - 7 p.m. Registration - Louisiana State University** Lobby, Peabody Hotel

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**SUNDAY, FEBRUARY 6**

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**8:00 a.m. Registration - Louisiana State University** Prefunction Area  
Peabody Hotel

**9:00 a.m. Joint Agricultural Education and Agricultural  
Communications Vespers Service** White Oak Room  
Don Herring, University of Arkansas  
Ricky Telg, University of Florida  
Kim Dooley, Texas A&M University

**10:00 a.m. Opening Session** White Oak Room  
Presiding: Joe Kotrlík, Louisiana State University  
Remarks: James Smith, Southern Region Vice-President, AAAE  
Adam Kantrovich, Southern Region Alternate Vice-President, AAAE  
(Outstanding Paper Selection)  
Facilitators: Gary Wingenbach, Texas A&M University  
Rick Rudd, University of Florida  
Robin Peiter, University of Kentucky

## 10:30 a.m. Concurrent Research Session I

### Session A: Technology and Distance Education

White Oak Room

Chair: Jay Morgan, Murray State University  
Discussant: David Lawver, Texas Tech University  
Facilitators: Chanda Elbert, Texas A&M University

Roadmap to Measuring Distance Education Instructional Design Competencies - *Kim E. Dooley, James R. Lindner, Texas A&M University; Ricky W. Telg, Traci Irani, University of Florida; Lori Moore, University of Idaho; Lisa Lundy, Louisiana State University; Rebekah Raulerson, The Market Place*

China Agricultural University Faculty Adoption Behavior about Web-Based Distance Education - *Yan Li, James R. Lindner, Gary J. Wingenbach & Timothy H. Murphy, Texas A&M University*

An Analysis of Technology Use and Quality Of Life in a Rural West Texas Community - *Susie J. R. Bullock, Texas A&M University & Texas Tech University; James H. Smith, Texas Tech University; Gary Briers, Texas A&M University*

Relationships between Student Achievement and Levels of Technology Integration by Texas AgriScience Teachers – *Jason B. Peake, The University of Georgia-Tifton Campus; Gary Briers & Tim Murphy, Texas A&M University*

### Session B: Professional Development

Lafayette Room

Chair: Cliff Ricketts, Middle Tennessee State University  
Discussant: Jim Flowers, North Carolina State University  
Facilitator: Travis Park, University of Florida

Extension Agents' Perceptions of Fundamental Job Characteristics and Their Level of Job Satisfaction - *Meagan Scott, Kirk A. Swortzel & Walter N. Taylor, Mississippi State University*

Teacher Preparation and In-Service Needs Associated With Management of the Total Program of Agricultural Education in Georgia - *John C. Ricketts, John Uessler, Jason B. Peake, The University of Georgia-Tifton Campus; Dennis W. Duncan, The University of Georgia*

A Comparison of Teacher Efficacy of Traditionally and Alternatively Certified Agriculture Teachers - *Steven J. Rocca & Shannon G. Washburn, University of Florida*

The Relationships between Selected Demographic Factors and the Level of Job Satisfaction of Extension Agents - *Meagan Scott, Kirk A. Swortzel & Walter N. Taylor, Mississippi State University*

### Session C: Youth Organizations

Ouachita Room

Chair: Robin Peiter, University of Kentucky  
Discussant: Tony Brannon, Murray State University  
Facilitator: Rusty Miller, Virginia Tech

Volunteer Administration Leadership Proficiency and Leadership Styles: Perceptions of Southern Region 4-H County Faculty - *Nicole L. P. Stedman, Texas A&M University; Rick D. Rudd, University of Florida*

National FFA Career Development Events: An Introspective Inquiry - *Barry Croom & Gary E. Moore, North Carolina State University; Jim Armbruster, National FFA Center*

Development of Youth Leadership Life Skills of Texas Youth as San Antonio Livestock Exposition School Tour Guides – *Laura A. Real & Julie Harlin, Texas A&M University*

Student Demographics, Extracurricular Participation and Safety Education of Students Participating in  
The 2003 Houston Livestock Show and Rodeo Agricultural Mechanics Project Show - *Doug Ullrich,  
Dwayne Pavelock, Joe Muller & Billy Harrell, Sam Houston State University*

**12:00 p.m. Lunch on your own**

**1:15 p.m. AAAE Regional Committee Meetings**

**Professional Development Committee** White Oak Room

Chair: Barry Croom, North Carolina State University (5/05)

Members: Kirk A. Swortzel, Mississippi State University (5/06)

Shannon G. Washburn (5/06)

Carrie A. Fritz (5/07)

John C. Ricketts (5/07)

**Program Improvement Committee** Conway Room

Chair: Tom Dobbins, Clemson University (5/05)

Members: Jim Leising, Oklahoma State University (5/06)

Robin Peiter (5/06)

Dennis W. Duncan (5/07)

Chandra Elbert (5/07)

**Research Committee** Ouachita Room

Chair: James E. Dyer, University of Florida (5/05)

Members: Craig Edwards, Oklahoma State University (5/06)

Todd Brashears (5/07)

Barry Boyd (5/07)

**Communications Committee** Lafayette Room

Chair: Gary J. Wingenbach, Texas A&M University (last year's chair) (5/05)

Members: Adam Kantrovich (5/06)

Dwayne Cartmell (5/06)

Jerry Gibson (5/07)

Kim E. Dooley (5/07)

Tracy A. Rutherford (5/07)

**Resolutions Committee** Marion Room

Chair: Mark Kistler, University of Florida

Dwayne Pavelock, Sam Houston State University

Antoine Alston, North Carolina A&T State University

**2:45 p.m. Poster Session and Break** Prefunction Area

Chair: Tom Dobbins, Clemson University Peabody Hotel

Identifying Educational Opportunities for Youth Participating in the 4-H or FFA Swine Project: A Survey  
of Packers - *Lisa Koterak, Jodi Sterle & Chris Boleman, Texas A&M University*

Fuel Efficiency of Small Gas Engines: Unleaded Gasoline versus Ethanol 85 (E-85) - *Keith Warnock,  
Aaron Dickinson, George Wardlow & Donald Johnson, University of Arkansas*

Agri-Science for Teachers: A New Methods Course for the Agri-Science Laboratory - *John C. Ricketts,  
Dennis Duncan & Jason Peake, The University of Georgia*

- A Comprehensive Summer In-Service Program: Spanning the Generations - *Jon W. Ramsey & R. Brent Young, Oklahoma State University*
- Using Role-Playing to Teach Risk and Crisis Communication Skills - *Courtney Wimmer, Sarah Heuer & Jefferson D. Miller, University of Arkansas*
- Project ACCESS: Agricultural Consortium for Comprehensive Educational Support and Service Project - *Jay Morgan, Murray State University*
- Certificate in Agricultural and Natural Resources Information Science - *Marcus M Comer, North Carolina A&T State University*
- Assessing Middle School Teachers Expectations of Training for Graduate Fellows Assigned to Integrate Science/Math into Rural Classrooms - *Diana L. Mowen, Shannon Degenhart, Julie Harlin, Gary J. Wingenbach & James R. Lindner, Texas A&M University*
- Enhancing Educator Knowledge of Sheep and Goat Production - *Linda Coffey & Margo Hale, North Carolina A&T State University/ATTRA*
- Independent Group Projects for the Virginia Governor's School for Agriculture - *John Cannon, Virginia Polytechnic Institute and State University*
- The Food Land and People Curriculum: Integrating Agriculture across the Curriculum - *David V. Powell, David M. Agnew & Mark McJunkin, Arkansas State University*
- The Kentucky Teacher Internship Program: An Innovative Program for First Year Agriculture Teachers - *David Coffey, Western Kentucky University*
- It's Now a Breeze, Really: Teaching Technology at a Distance - *K. Dale Layfield, Clemson University*
- Using Hand Held Electronic Responders to Induce Active Learning in the Classroom - *Barry Croom, North Carolina State University*
- AgriScience Reform in Agricultural Education at Clemson University - *Salvatore A. Sparace, John R. Cummings, Thomas R. Dobbins, K. Dale Layfield, Christine Minor & Jerry A. Waldvogel, Clemson University*
- AgBall: Using Football and the Internet to Teach Agriculture - *John C. Ricketts, Jason Peake, Dennis Duncan, Frank Flanders, & Emuel Aldridge, The University of Georgia*
- Agri-Science for Teachers: A New Methods Course for the Agri-Science Laboratory - *John C. Ricketts, Dennis Duncan & Jason Peake, The University of Georgia*
- Expanding the Magnitude of Research Using Teacher Consultants - *Jacquelyn Deeds, Walter Taylor, & Kirk Swortzel, Mississippi State University; Gary Wingenbach, Texas Tech University*
- Technology on Wheels...I'll Take Mine to Go! - *Holly J. Kasperbauer & T. Grady Roberts,, Texas A&M University*
- Articulation in Agriculture: A Seamless Program of Success in Agricultural Education - *Brian Powers, Murray State University*
- Middle School Students' Attitudes toward Math and Science - *Shannon H. Degenhart, Diana Mowen, Julie Harlin, Gary J. Wingenbach, & James R. Lindner, Texas A&M University*
- Communities' Concerns about Agriculture and Natural Resources: A Qualitative Analysis of Issues from the 2004 Texas Communities Futures Forum - *Chris Boleman Texas A&M University*
- Discover Your Own Path: Assessing the Effectiveness of Virginia Tech's College of Agriculture and Life Sciences Recruitment Brochure - *Jennifer Surotchak, Michelle Khilji, Letitia Wu, Josh Lewin, & Hank West, Virginia Tech*

<b>4:00 p.m.</b>	<b>SAAS General Session</b>	Conway Room/Peabody Hotel
<b>6:30 – 8:30 p.m.</b>	<b>SAAS Reception</b>	Peabody Ballroom Salon C

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**MONDAY, FEBRUARY 7**

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**7:30 a.m. Registration–Louisiana State University** Prefunction Area  
Peabody Hotel

**8:30 a.m. Concurrent Research Session II**

**8:30a.m. Concurrent Session II**

**Session D: Student Teaching** Ouachita Room

Chair: Marcus Comer, North Carolina A&T State University

Discussant: Gary Moore, North Carolina State University

Facilitator: Dwayne Pavelock, Sam Houston State University; Penny Haase-Wittler, Southern Arkansas University.

The Process of Supervision with Student Teacher Choice: A Qualitative Study - *Carrie A. Fritz & Michelle Stumbo, University of Tennessee*

A Profile of Cooperating Teachers and Centers in Oklahoma: Implications for the Student Teaching Experience in Agricultural Education – *R. Brent Young & M. Craig Edwards, Oklahoma State University*

Career Decisions of Pre-service Agricultural Education Teachers: A Synthesis of Research - *Steven J. Rocca & Shannon G. Washburn, University of Florida*

Challenges Expressed By Cooperating Teachers When Working With Students Teachers in Agricultural Education: A Delphi Study - *Carrie A. Fritz & Lori Jean Mantooh, University of Tennessee*

**Session E: Extension Programs and Personnel** Lafayette Room

Chair: Adam Kantrovich, Morehead State University

Discussant: Randol Waters, University of Tennessee

Facilitator: Elizabeth B. Wilson, North Carolina State University

Correlational and Predictive Attributes of Demographic Factors and Their Relationship to Hispanic Participation in Texas Extension Programs - *Ruben J. Saldaña, Texas Cooperative Extension Service; David Lawver, Texas Tech University; James Lindner & Scott Cummings, Texas A&M University; Hansel Burley & Marvin Cepica, Texas Tech University*

Factors Contributing to Volunteer Administration Leadership Proficiency of Southern Region 4-H County Faculty - *Nicole L. P. Stedman, Texas A&M University; Rick D. Rudd, University of Florida*

Future Job Openings in the Field of Agricultural Education and Communication - *David Jones & Rick D. Rudd, University of Florida*

Characteristics of Creative County Extension Programs in Texas: Comparison of Administrative Perceptions to Observations in Identified Creative Programs - *Michael Womack, Texas Cooperative Extension Service; Matt Baker, Texas Tech University; Kim E. Dooley, Texas A&M University*

**Session F: Leadership and Youth Development** Harris Brake Room

Chair: Dennis W. Duncan, University of Georgia

Discussant: James Leising, Oklahoma State University  
Facilitator: Jeffrey Horne, Southern Arkansas University

Challenges Of Service-Learning in a Southern State's 4-H Youth Development Program: A Delphi Study  
- *Lori Jean Mantooth & Carrie A. Fritz, University of Tennessee*

The Impact of Socioeconomic Status on Leadership Potential in an Agricultural Leadership Program -  
*Leah J. Wall, Timothy J. Pettibone & Kathleen D. Kelsey, Oklahoma State University*

Selected Texas Agricultural Organization Board Members' Perceptions of Communication Methods and  
the 2002 Farm Bill - *Christa L. Catchings, Gary J. Wingenbach & Tracy A. Rutherford, Texas A&M  
University*

Benefits Of Service-Learning in a Southern State's 4-H Youth Development Program: A Delphi Study -  
*Lori Jean Mantooth & Carrie A. Fritz, University of Tennessee*

### **10:00 a.m. Break**

### **10:30 a.m. Concurrent Research Session III**

#### **Session G: Instructional Methods**

Ouachita Room

Chair: Carrie A. Fritz, University of Tennessee  
Discussant: Jacque Deeds, Mississippi State University  
Facilitator: Jason B. Peake, The University of Georgia-Tifton Campus; Penny Haase-Wittler,  
Southern Arkansas University

Reading Strategies and Textbook Use in Agricultural Education - *Travis Park & Edward W. Osborne,  
University of Florida*

Using CD-Based Materials to Teach Turfgrass Management: An Assessment of the "Turf for Texans"  
Master Gardener Curriculum - *Chyrel A. Mayfield & Gary J. Wingenbach, Texas A&M University;  
David R. Chalmers, Texas Cooperative Extension Service*

Effects of Investigative Laboratory Instruction on Content Knowledge and Science Process Skill  
Achievement across Learning Styles - *Brian E. Myers & James E. Dyer, University of Florida*

Effects Of Lecture Versus Experiential Teaching Method On Cognitive Achievement, Retention, And  
Attitude Among High School Agriscience Students - *Linda Ann Newsome, George W. Wardlow &  
Donald M. Johnson, University of Arkansas*

#### **Session H: Learning Styles and Learning**

Lafayette Room

Chair: Nicole Stedman, Texas A&M University  
Discussant: Gary Briers, Texas A&M University  
Facilitator: Holly Kasperbauer, Texas A&M University

The Influence of Learning Style, Leadership Style, and Leadership Adaptability on Critical Thinking  
Disposition - *Kimberly A. Bellah & James E. Dyer, University of Florida*

The Effects Of Multimedia Cues On Student Cognition In An Electronically Delivered High School Unit  
Of Instruction - *Todd Brashears, Cindy Akers & James Smith, Texas Tech University*

The Influence of Student Learning Experience Level and Learning Style on Achievement – *T. Grady  
Roberts, Texas A&M University*

A Comparison Of Commonwealth Accountability Standardized Test Scores Between High School  
Agricultural Education/Career And Technical Education Students And The Kentucky State Standards  
– *Catherine Woglom, Brian Parr, & Jay A. Morgan, Murray State University*

**Session I: Mentoring**

Harris Brake Room

Chair: Jay Morgan, Murray State University  
 Discussant: David Coffey, Western Kentucky University  
 Facilitator: Diana Mowen, Texas A&M University; Jeffrey Horne, Southern Arkansas University

College Of Agriculture Faculty Perspectives in Their Role as Advisor and Mentor - *Robin L. Peiter & Beth Dukes, University of Kentucky*

Factors Related to the Effectiveness of Progress toward Degree Regulations - *Elizabeth B. Wilson & Barbara M. Kirby, North Carolina State University*

Coverage and Outcomes of the Space Agriculture in the Classroom Program - *Glenn D. Israel, Jennifer M. Richardson, Edward W. Osborne, Shannon G. Washburn & James E. Dyer, University of Florida*

Student Advising and Mentoring in a College Of Agriculture: Examining Faculty and Administration Attitudes - *Robin L. Peiter & Beth Dukes, University of Kentucky*

**12:00 p.m. Conference Luncheon** Peabody Ballroom Salon C

Presiding: Adam Kantrovich, Southern Region AAAE Alternative Vice-President  
 Moment of Silence  
 Memorial Recognitions  
 Graduate Student Recognitions  
 Speaker: Distinguished Mystery Lecturer

**1:30 p.m. AAAE-SRC Business Meeting** Ouachita Room

Presiding: James Smith, Texas Tech University, Southern Region AAAE Vice-President  
 AAAE-SRC Vice President: Randol Waters, University of Tennessee  
 AAAE-SRC Secretary: Thomas R. Dobbins, Clemson University

**2:00-**

**3:30p.m. SAAS Board of Directors Meeting** Miller Room  
 (Joe Kotrlík/Randol Waters/ Tom Dobbins) Statehouse Convention Ctr

**2:45 p.m. Break**

**3:15 –**

**4:45 p.m. Professional Development Seminars** Peabody Ballroom Salon B

Chair: Barry Croom, North Carolina State University  
 Chair, AAAE Southern Region Professional Development Committee  
 Facilitators: Kirk A. Swortzel, Mississippi State University; Shannon G. Washburn; Carrie A. Fritz, University of Tennessee; John C. Ricketts, The University of Georgia

- Innovative Professional Development for Teachers
- Undergraduate and Graduate Distance Education
- Agricultural Literacy
- Agricultural Leadership Programs
- Teaching the Integration of Academics and Career and Technical Education
- Teaching Teachers How to Cope With Misbehavior
- International Education



**5:30 p.m. Awards Reception**

Peabody Ballroom Salon C

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**TUESDAY, FEBRUARY 8**

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**7:00 a.m. SAAS Board of Directors Meeting**

Fulton Room  
Statehouse Convention Ctr

**ROADMAP TO MEASURING DISTANCE EDUCATION  
INSTRUCTIONAL DESIGN COMPETENCIES**

Kim E. Dooley & James R. Lindner, Texas A&M University  
Ricky W. Telg & Tracy Irani, University of Florida  
Lori Moore, University of Idaho  
Lisa Lundy, Louisiana State University  
Rebekah Raulerson, The Market Place

This study was designed to measure instructional design competencies as a result of participation in a nine-month Web-based training program called Roadmap to Effective Distance Education Instructional Design. The researchers used a self-assessment pre- and post-test to determine participant initial and final competence in 12 areas: Adult Learning, Understanding Teaching at a Distance, Instructional Design, Course Development, Delivery Strategies for Teaching at a Distance, Instructional Technology Resources, Advanced Interaction Methods, Accessibility, Planning and Conducting Evaluation, Evaluation Analysis and Reporting, Administrative Issues, and Training and Support. Open-ended verification narratives were analyzed using the constant comparative method. This competency model worked well to document learning as a result of participation in the program.

**CHINA AGRICULTURAL UNIVERSITY FACULTY ADOPTION BEHAVIOR ABOUT  
WEB-BASED DISTANCE EDUCATION**

Yan Li  
Zhejiang University

James R. Linder  
Gary J. Wingenbach  
Timothy H. Murphy  
Texas A&M University

The purpose of this study was to determine China Agricultural University (CAU) faculty adoption behavior about Web-based distance education (WBDE). Rogers' (2003) model of five stages in the innovation-decision process was adopted as the theoretical base for the study. The model was modified by adding a new stage named "no knowledge" at the beginning of the process. Quantitative research was employed and the research design for the study was descriptive in nature. Results of data analysis found that about 70% of participating CAU faculty (N = 273) stayed in early stages in the innovation-decision process related to WBDE (no knowledge, knowledge, or persuasion) and about 30% were in later stages (decision, implementation, and confirmation). Faculty members' stage in the innovation-decision process differed significantly by their professional area, level of education, teaching experience, and distance education experience. Gender, age, and academic rank had no significant influence on faculty members' stage in the process.

**AN ANALYSIS OF TECHNOLOGY USE AND QUALITY OF LIFE IN  
A RURAL WEST TEXAS COMMUNITY**

Susie J. R. Bullock, Texas A&M University & Texas Tech University  
James H. Smith, Texas Tech University  
Gary E. Briers, Texas A&M University

This study was undertaken to measure how much and for what purposes the citizens of Littlefield, Texas, used computers and the Internet and to determine adults' and adolescents' views of their quality of life. The authors used a tool that defined quality of life as, "How good is your life for you?" By determining whether technology use was positively correlated to a resident's view of his or her quality of life, the researchers set out to discover whether greater diffusion of computer technology and adoption of broadband Internet access might provide answers to the youth and leadership migration from rural areas to metropolitan areas.

**RELATIONSHIPS BETWEEN STUDENT ACHIEVEMENT AND LEVELS OF  
TECHNOLOGY INTEGRATION BY TEXAS AGRISCIENCE TEACHERS**

Jason Peake, The University of Georgia  
Gary Briers, Texas A&M University  
Time Murphy, Texas A&M University

The purpose of this study was to determine if agriscience teacher integration of instructional technology was related to student achievement. A survey instrument was developed to collect information on the level at which teachers integrate technology into their instruction. Teachers' demographics, teachers' technology integration skill levels, teachers' administrative use of technology skill levels, and teachers' technology integration levels were collected from a random sample of 150 agriscience teachers in Texas. Student data were collected on 10<sup>th</sup> grade students in classes taught by the 150 teachers selected to participate in the study. The Texas Education Agency provided all TAAS data. The primary student variables used in the study to quantify math, reading, and writing achievement were the total number of multiple choice items correct for each of these three subject areas. A low positive correlation was found between student achievement in math and teacher instructional technology integration level (.14). Negligible positive correlations ( $r < .10$ ) were found between teacher instructional technology integration level and student achievement on the writing portions and reading portions of the TAAS.

**ROADMAP TO MEASURING DISTANCE EDUCATION  
INSTRUCTIONAL DESIGN COMPETENCIES**

A Critique by David E. Lawver, Texas Tech University

The purpose of this study was to measure instructional design competencies as a result of participation in a nine-month Web-based training program called Roadmap to Effective Distance Education Instructional Design. The researchers utilized a pretest-posttest design to measure participant gain scores in distance education instructional design competence. The study was well designed and the theoretical framework was solid and logical in its presentation.

The strong points of this study are related primarily to the design the study. The study was very clean in that the theoretical framework clearly provided the reader with the rational and direction in which the study was going. This discussant appreciated the attention to details related to the qualitative nature of this study, particularly the section dealing with credibility, transferability, dependability, and confirmability. This paper was very well written and easy to understand.

There is only one area of concern related to this manuscript. Figure 1 seems to be a screen print from the Web-based instrument that was used to collect data. It appears that the two examples show that the subject responded one time for each destination but there are several competencies for each destination. If this is the case, why not have the subject respond on each of the competencies?

The training program was designed such that participants were to train others in distance education instructional design. It would be interesting to conduct this study again with an experimental design to determine the effect of training others on learning. This study was well done and the manuscript was well written. This study adds to the body of knowledge. The authors are to be commended.

**CHINA AGRICULTURAL FACULTY ADOPTION BEHAVIOR  
ABOUT WEB-BASED DISTANCE EDUCATION**

A Critique by David E. Lawver, Texas Tech University

The purpose of this study was to determine China Agricultural University (CAU) faculty adoption behavior about Web-based distance education (WBDE). The authors utilized a slightly modified version of Rogers' innovation-decision process model to determine in what stage CAU faculty members were in regard to WBDE. The theoretical framework was well thought out and logical in its presentation. The researchers added a stage, no knowledge, to Rogers' five stage model. This was an appropriate addition that accounted for faculty members who may have no knowledge at all concerning WBDE.

The strong points of this study are related primarily to the design the study. The study was very clean in that the theoretical framework clearly provided the reader with the rational and direction in which the study was going. Additionally, the researchers did an excellent job of relating the findings of this study to the literature. The researchers achieved a very high response rate (96.3%).

There are few areas of concern related to this study. One might be with the additional stage the researchers added to Rogers' model. The stage appears to be appropriate; however, the description of the stage can be questioned. The description the authors used, "I have not used Web-based distance education programs and have no plans for doing it," does not necessarily mean the subject knows nothing about WBDE. This description could fit an individual who, in fact, knows a lot about WBDE. Shouldn't the description read something like "I know nothing about WBDE and have no plans to use it"?

One intriguing finding is that as faculty possessed more advanced degrees, they tended to be at a lower stage of adoption. Why does this happen? Additionally, faculty members with more teaching experience, 15-19 years, were at a later stage in the adoption process. After 19 years experience, faculty members tended to be at an earlier adoption stage. What accounts for this spike in the data? This research was well done and the article was well written. The authors are to be commended.

**AN ANALYSIS OF TECHNOLOGY USE AND QUALITY OF LIFE IN  
A RURAL WEST TEXAS COMMUNITY**

A Critique by David E. Lawver, Texas Tech University

The purpose of this study was to measure how much and for what purposes the citizens of Littlefield, Texas, used computers and the Internet and to determine adults' and adolescents' views of their quality of life. The authors are to be commended for conducting this study and attempting to explore ways to understand and subsequently stem the out-migration of young people from small, rural communities. This is a noble and important topic. The introduction was well written and builds a case for this study. The theoretical framework is solid, logical, and well written.

Upon initial reading, one is struck with the low response rate obtained in this study. Only 377 of 1,951 questionnaires were returned. However, data collection for this study was quite ambitious. When one considers the nature of the sample, this return rate is quite commendable. Additionally, the researchers adequately controlled for non-response error. An additional strength of this study is the use of an instrument with established validity and reliability.

The main weakness with this manuscript is related to the model the authors present in the later stages of the paper. First, in the view of this discussant, it is too early in the line of inquiry to propose a model, particularly one that doesn't seem well supported by the findings of this study. Second, the model is not easily understood. Models should simplify rather than confuse the issue. This discussant looks forward to future iterations of the model that will hopefully serve to provide a more coherent explanation of phenomenon that are taking place.

The brain drain is presenting formidable obstacles to rural communities in West Texas. The authors have recognized this problem and are seeking to provide understanding. One interesting finding relates to the age of the high schools students related to quality of life scores. As students age, they tend to exhibit lower quality of life scores. This seems to be a relationship that merits further inquiry. Why does this happen? What interventions can be used to reverse this trend?

**RELATIONSHIPS BETWEEN STUDENT ACHIEVEMENT AND LEVELS OF TECHNOLOGY INTEGRATION BY TEXAS AGRISCIENCE TEACHERS**

A Critique by David E. Lawver, Texas Tech University

The purpose of this study was to determine if agriscience teacher integration of instructional technology was related to student achievement. The authors collected data from 150 Texas Agricultural Science Teachers in single teacher departments and utilized data from the Texas Education Agency (TEA). The data from TEA were the result of TAAS test, which is the Texas version of high stakes testing. The theoretical framework is well written and logically organized.

The strong points of this study are related primarily to the methods and techniques used to conduct the study. The use of existing data from TEA is particularly noteworthy given the emphasis now placed on high stakes testing. The instrument utilized to gather data from the teachers had excellent reliability scores. The achieved response rate is acceptable provided non-response error is addressed.

An area of concern centers on the premise that agriscience teacher integration of instructional technology and performance on high stakes tests are somehow related. The authors utilized total items correct on the math, reading, and writing portions of the TAAS test. This score is reflective of total achievement whereas teacher integration of instructional technology is reflective on only the agriculture teacher. One must assume that other teachers are involved in the education of the students in question. Another concern relates to the Technology Integration items as reported in this paper. The list of these items suggests that they are more related to attitudes about technology and learning and not so much about integration.

High stakes testing is an important topic for all involved in secondary education. It is important to students, parents, teachers, and those involved in teacher preparation. Recognizing the limited space available in an article such as this, one must wonder why the introduction included a discussion on the need to prepare technologically literate students when the study only addressed student achievement in math, reading, and writing. The authors are to be commended for studying this very important topic.

**EXTENSION AGENTS' PERCEPTIONS OF FUNDAMENTAL JOB CHARACTERISTICS AND THEIR LEVEL OF JOB SATISFACTION**

Meagan Scott, Mississippi State University  
Kirk A. Swortzel, Mississippi State University  
Walter N. Taylor, Mississippi State University

The purpose of this study was to determine Extension agents' perceptions of fundamental job characteristics and their level of job satisfaction. The study followed a descriptive design. A modified version of the Job Diagnostic Survey developed by Hackman and Oldham (1980) was sent to 195 Extension agents. Based on 143 usable responses, agents perceived the job characteristics skill variety and task significance to be present most in their jobs, while they perceived feedback from agents the least. Agents were most satisfied with the job satisfaction constructs of growth satisfaction and satisfaction with co-worker relations, while they were least satisfied with the job satisfaction constructs of general satisfaction and satisfaction with pay.

**TEACHER PREPARATION AND IN-SERVICE NEEDS ASSOCIATED WITH MANAGEMENT OF THE TOTAL PROGRAM OF AGRICULTURAL EDUCATION IN GEORGIA**

John C. Ricketts, The University of Georgia  
John Uessler, The University of Georgia  
Jason B. Peake, The University of Georgia  
Dennis W. Duncan, The University of Georgia

The purpose of this descriptive census study was to survey agriculture teachers (N = 348) in Georgia to determine perceived level of importance, competence, and pre-service/in-service training needs for a set of non-instructional, agriculture teacher competencies, specifically associated with duties related to managing the "total program" of agricultural education. Sixty one percent of the teachers (n = 212) completed a modified version of Joerger's (2002) Minnesota Beginning Agricultural Education Teacher In-service Programming Needs Assessment instrument, which was based on Borich's (1980) Needs Assessment Model. Mean and Standard Deviation were calculated to indicate teachers' perceived level of importance and competence for each professional competency, while Mean Weighted Discrepancy Scores were calculated to represent in-service and pre-service needs. Teachers considered all of the non-instructional competencies needed for managing the total program of agricultural education important. They also considered themselves at least somewhat competent in each of the competencies. According to the Georgia agriculture teachers in this study, the most important training need for either pre-service teacher education or professional development was advising students about post-secondary education in agriculture. Other highly rated pre-service/in-service training needs included preparing FFA proficiency award applications and FFA degree applications, developing an effective public relations program, and developing Supervised Agricultural Experience (SAE) opportunities for students.



**A COMPARISON OF TEACHER EFFICACY OF TRADITIONALLY AND  
ALTERNATIVELY CERTIFIED AGRICULTURE TEACHERS**

Steven J. Rocca, University of Florida  
Shannon G. Washburn, University of Florida

The shortage of qualified teachers in agricultural education has led to the hiring of uncertified teachers to fill vacancies. Many states have resorted to alternative certification routes to fill the need for teachers. In Florida, alternatively certified teachers represent over half of all new teachers in agricultural education. This situation has created uncertainty about the status of agricultural education in the state and provided the motivation for this study. The purpose of this study was to describe traditionally and alternatively certified Florida agriculture teachers, compare their perceptions of teacher efficacy, and examine the relationship between teaching experience and teacher efficacy. Data analysis found that traditionally and alternatively certified teachers differed in age, education level, agricultural occupational experience, and gender and ethnicity proportions. Comparison of teachers' self-efficacy found no notable difference between the two groups. Results also showed a low positive association existed between agriculture teaching experience and teacher efficacy. Suggestions for future research include the need for replication of the study with other beginning teachers, increased recruitment of underrepresented populations into teacher preparation programs, and investigation of the curriculum and teaching practices of traditionally and alternatively certified teachers as they may impact teachers' perceptions of efficacy and student achievement.

**THE RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC FACTORS AND  
THE LEVEL OF JOB SATISFACTION OF EXTENSION AGENTS**

Meagan Scott  
Kirk A. Swortzel  
Walter N. Taylor  
Mississippi State University

The purpose of this study was to determine what demographic factors were related to the level of job satisfaction of Extension agents. The study followed a descriptive correlational design. A modified version of the Job Diagnostic Survey developed by Hackman and Oldham (1980) was sent to 195 Extension agents. Based on 143 usable responses, significant relationships existed between the job satisfaction constructs and the demographic factors of gender and race. When considering Extension agents' current position, a significant difference was found between area agents and 4-H agents regarding how each group rated satisfaction with co-worker relations. Significant relationships were determined at the  $p < .05$  level.

**EXTENSION AGENTS' PERCEPTIONS OF FUNDAMENTAL JOB CHARACTERISTICS AND THEIR LEVEL OF JOB SATISFACTION**

A Critique by Jim Flowers, North Carolina State University

Certainly, Cooperative Extension wants to retain their most productive employees, and job satisfaction is linked to retention—and retention to overall productivity. The authors did a good job of building a case for studying job satisfaction of extension employees, so there was an adequate conceptual framework for this study. Hackman and Oldham's job characteristics theory also provided a sound theoretical base for the study. There was quite a bit of information in the introduction/conceptual framework for the study related to job satisfaction following or during restructuring. It was not until the end of the discussion of the theoretical framework that the authors explained that Cooperative Extension in Mississippi had recently gone through restructuring. Placing this information earlier in the introduction would have made the information on job satisfaction following restructuring make more sense to the reader.

An additional strength of the paper was the methodology used in conducting the study. The study was a census study and had a very good response rate of 73% (86% if you count those that responded but did not provide usable data). Nonresponse error was addressed by the researchers using a generally accepted practice of comparing early and late respondents. The authors should be commended for reporting reliability estimates of the subscales, since that is the way they reported the data. Perhaps the authors should have used population parameters rather than statistics to report the data, especially since statistical comparisons were not being made.

The findings reported in the study were somewhat difficult for me to interpret. The authors reported the scales with the highest and the lowest ratings among the three groups. But they really did not assist the reader in interpreting the mean scores. What does a mean of 6.12 on the Skill Variety subscale tell us? Without seeing the scores on the individual items that make up the scale, we still don't know a lot about this subscale. It might be helpful to attach descriptors to the response scores. Certainly a 6 is higher than a 4, but just what does a 6 and a 4 represent? There were not many differences in mean scores among the groups, but where they existed, they should have been pointed out. For example, the area agents seemed to have substantially lower satisfaction with their supervision than did the county directors and 4-H agents. Perhaps this should have been noted in the text. Of course, satisfaction with their pay was rated low—SURPRISE!!!

In the Conclusions and Discussion section, it is probably time to make some judgments. The authors reported that certain factors were present. At this point, I would recommend that the authors draw a conclusion as to the level of the characteristic that is present. Is the level high, moderate, or low—and what are the implications of that level being present? Another point related to this section is that a characteristic may be rated higher or lower than another characteristic, but is it a concern if they are both still rated high? Are there findings within this study that should concern the profession? I believe there are some areas to explore, and this study has identified a problem or two that needs to be addressed in some way.

**TEACHER PREPARATION AND IN-SERVICE NEEDS ASSOCIATED WITH  
MANAGEMENT OF THE TOTAL PROGRAM OF AGRICULTURAL EDUCATION  
IN GEORGIA**

A Critique by Jim Flowers, North Carolina State University

The topic for this study is certainly important for the profession. We need to be concerned with the preservice and the inservice needs of agriculture teachers. With limited opportunities, especially for inservice, we need to make sure our efforts focus on the most important and most needed topics for our teachers. With the number of lateral entry teachers that we find entering the profession in some states, it is difficult to determine the appropriate total program for preservice and inservice—and if there is a difference. The introduction for this study provided a good rationale for conducting the study. Previous research related to the topic was presented, providing a basis for the selection of items to be addressed by the questionnaire.

The authors are to be commended for conducting a study that employed sound research methodology. It was clear that attention was directed at each of the major sources of error in survey research. Although a minor point, the authors might want to consider using population parameters rather than statistics since this was a census study. The recommendations that were presented by the authors logically followed from the findings and conclusions of the study.

This study focused on non-instructional preservice and inservice needs of agriculture teachers. At this point, I would like to stand on my “soap box” and ask the question, “Why do we consider SAE a non-instructional responsibility of an agriculture teacher?” Perhaps identifying and setting up SAE opportunities for students is a non-instructional duty for an agriculture teacher. But it would seem to this individual that supervising a student’s SAE program (one of the items on the questionnaire) is certainly an instructional activity, as is teaching record keeping (another item). Perhaps one of the reasons that SAE is not emphasized in our programs is the very idea that SAE is a non-instructional responsibility. [End of soap box]

The overall purpose of this study was to determine preservice and inservice needs of agriculture teachers. It is difficult to determine the reason for research objective one—that deals with the demographic characteristics of the teachers. The data were not examined on the basis of any of these demographic characteristics. After surveying teachers in our states for a number of years, don’t we already know the gender breakdown of the teachers, how much teaching experience they have, and their level of education? While this information may establish the context for the study, it does not contribute to the overall purpose of the study.

Perhaps there needs to be some discussion in the profession regarding topics that are most appropriate for preservice programs and those that are most appropriate for inservice. Preservice programs in agricultural education have become very crowded with topics, and in most programs, there simply is little time available for adding more information—at least not in the formal teacher education program. Perhaps there are opportunities to include guest speakers on agricultural opportunities, for example, in our student organization meetings. And perhaps some topics are best addressed as inservice topics.

**A COMPARISON OF TEACHER EFFICACY OF TRADITIONALLY AND  
ALTERNATIVELY CERTIFIED AGRICULTURE TEACHERS**

A Critique by Jim Flowers, North Carolina State University

Alternatively certified teachers in agriculture are a reality in many states, and the authors should be commended for conducting this study to provide some baseline data related to their perceived level of competency. It is important to know more about the people that we are trying to serve and who are teaching the children in our states. This study provides some insight to this topic, but also raises some additional questions for us to pursue as a profession.

The introduction in this paper certainly provided a conceptual basis for comparing traditionally certified teachers and alternatively certified teachers. As far as methodology goes, the authors did a sound job of designing the study. The findings were presented in an understandable manner and the conclusions, while generally restatement of findings, were logically derived from the findings. A concern that I have is that teacher efficacy is such a broad term that I am not sure we have enough information to intervene if the study had found low levels of teacher efficacy in one of the groups. We certainly do not have that specific type of information presented in this paper.

The questions that I would pose for the authors deal more with the basic issues. They used an instrument developed by Tschannen-Moran and Woolfolk Hoy that consisted of 12 items that, I would suppose, would be related to responsibilities for teachers in general. But, in the introduction, the authors state that agriculture teachers have different types of roles and responsibilities/expectations than other teachers. So the question may be, did the instrument measure teacher efficacy related to those differing types of roles and responsibilities that we believe are a part of teaching agriculture? Perhaps some of those different responsibilities are the ones that create less efficacy among beginning teachers. Since the 12 items were not presented, it is impossible for the reader to determine, but perhaps there were differences in some of the items between the groups that were not revealed by an overall efficacy score. Of course, another question that could have arisen deals with one of the basic assumptions of survey research—were the respondents willing to give a true assessment of their ability to the researchers? We have to assume they were (if we are going to do the study), but the efficacy scores seem to be higher than the efficacy that many of us may have actually observed among new teachers. Finally, while the sample did include a high percentage of first year teachers, we should be reminded that the rest of the teachers were the ones who made it through the first, second, third, or fourth year of teaching. We know little about the ones who did not.

While this study raises some additional questions for the profession, that is one of the side effects of educational research. I would encourage the researchers to look deeper into this problem because we desperately need to address teacher retention issues if we have any hope of meeting the demand for teachers in our profession.

**THE RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC FACTORS AND  
THE LEVEL OF JOB SATISFACTION OF EXTENSION AGENTS**

A Critique by Jim Flowers, North Carolina State University

This study appears to be an extension of the other paper presented in this session that described extension agents' levels of satisfaction with fundamental job characteristics. Therefore many of my comments related to the methodology for the study in the previous paper apply to this paper as well. In the introduction, the demographic variables analyzed in this study seem to be drawn from previous research. While it is certainly a good idea to examine the results of previous studies and the variables included in these studies, one additional aspect that could have been examined is the conceptual basis for including variables such as age, marital status, gender, etc. In other words, other than the fact that these variables were examined in previous studies, why would one believe that these demographic variables might be related to job satisfaction? It appears that a case could be made for the importance of including these variables that would be stronger than the fact that they had been included in previous studies. The theoretical framework for this paper does not seem to fit as well as it fits the other paper. Hackman and Oldham's (1976) job characteristics theory seems to fit very well in the other paper that describes how extension agents feel about certain job characteristics. The theory is used to provide a basis for how one determines overall job satisfaction. However, this study is about relationships between demographic factors and job satisfaction. There was nothing in the theoretical rationale described in the paper that suggests demographic factors enter into this concept of job satisfaction.

The authors should be encouraged to consider what questions they really want to have answered before selecting the statistical tools to analyze the data. Many of the demographic variables are truly categorical data (gender, marital status, and ethnicity). Relationships examine the way variables move together. Does it really help us to know that as a person becomes more female (whatever that means) their job satisfaction increases? Or as a person becomes less married (and we might guess what that means) their job satisfaction decreases? Aren't we really interested in differences rather than relationships with some of these variables? It would appear so, based on some of the statements in the conclusions and recommendations. We need to be very careful not to translate relationships into differences.

Regarding the selection of the correlational statistics used in the study, it is not clear whether the job satisfaction constructs are considered interval or ordinal data. If the job satisfaction constructs are considered interval data, the use of point-biserial correlation coefficients are appropriate when examining relationships to dichotomous variables such as gender, race, and marital status (Glass & Stanley, 1971). If the job satisfaction constructs are considered ordinal data, rank-biserial correlation coefficients would be appropriate, according to Glass and Stanley. In some cases it appears the authors are considering the job satisfaction constructs as interval data and in some cases ordinal—if Glass and Stanley's recommendations for selecting correlation coefficients are used. It is not clear how the data presented in Table 2 (which was the same data as found in Table 2 of the other paper) contributed to a study of relationships of the constructs to demographic variables. The authors appeared to report differences in satisfaction scores among the agents, but differences are not the same as

relationships. Incidentally, the post hoc comparisons that were used were Scheffe' tests (the default option for SPSS), which are appropriate for non-pairwise comparisons, but not the most powerful statistical tool for the pairwise comparisons that were made. However, the argument could be made that post hoc tests are not necessary since the study was a census study.

Perhaps this discussant is a throwback to ancient times, but I still prefer to see statistical significance of relationships reported before we spend any time discussing the strength of the relationship. I know there has been debate on this issue, but it appears that unless the significance test determines that  $r \neq 0$ , it seems useless to discuss the strength of a relationship that may have simply occurred by chance.

**VOLUNTEER ADMINISTRATION LEADERSHIP PROFICIENCY AND LEADERSHIP STYLES: PERCEPTIONS OF SOUTHERN REGION 4-H COUNTY FACULTY**

Nicole L.P. Stedman, Texas A&M  
Rick D. Rudd, University of Florida

Volunteer administration leadership is an important component of any successful 4-H program. Proficiency in competencies associated with volunteer administration can prove to be one's greatest asset in his/her ability to successfully develop the leadership of youth. With that, leadership style is also an important consideration because it provides a means for working with individuals and reaching programmatic goals. The purpose of this study was to determine the perceived proficiency of 4-H faculty in the southern region in seven competencies associated with volunteer administration leadership: These were measured using the Volunteer Administration Leadership Competency Instrument (VALCI). Leadership style was also determined using the Multifactor Leadership Questionnaire (MLQ), which measures three dimensions of leadership style, transformational, transactional and laissez faire. Respondents were found to be of average proficiency in volunteer administration leadership competence. However, they were far more proficient in the individual competencies of personal skills and organizational culture. Respondents also believed that their ability to work with people was the most important skill related to volunteer administration, and their ability to address positions and relationships within the organization second. However, their greatest weaknesses were found to be accountability and management. 4-H county faculty in the southern region use transformational leadership most frequently, followed by their use of transactional leadership and laissez faire. Implications are that 4-H county faculty in the southern region could use additional professional development opportunities addressing skills related to accountability and management. Additionally, these faculty members can continue to better their skills related to transformational leadership, ensuring consistent practice across the region.

**NATIONAL FFA CAREER DEVELOPMENT EVENTS:  
AN INTROSPECTIVE INQUIRY**

Barry Croom and Gary Moore, North Carolina State University  
Jim Armbruster, The National FFA Organization

The purpose of this study is to determine why students participate in national career development events and to examine factors related to their participation. A survey was completed by 2145 FFA members and by 206 FFA advisor/coaches in 2003. FFA members who participate in national career development events are generally pleased with the conduct of the events and find them valuable to their education. FFA members are trained for national FFA career development events primarily by their agriculture teacher. This training generally lasts between one and five hours per week and will most likely occur after normal school hours. Teachers and students in this study disagree as to the reason why members participate in national career development events. Teachers believe that the most important reason for participation is competition, but students indicate that their most important reason for participation is that the event relates to their career choice.

**DEVELOPMENT OF YOUTH LEADERSHIP LIFE SKILLS OF TEXAS YOUTH AS  
SAN ANTONIO LIVESTOCK EXPOSITION SCHOOL TOUR GUIDES**

Laura A. Real and Julie Harlin, Texas A&M University

The purpose of this study was to determine if Texas 4-H, FFA, and FCCLA members were developing leadership life skills through their participation as school tour guides at the San Antonio Livestock Exposition. Additionally, demographic characteristics were evaluated to determine which of these characteristics affected leadership life skills development. All school tour guides returning for the afternoon exit-meeting during the 2004 San Antonio Livestock Exposition were asked to complete the questionnaire. This resulted in 1,691 responses. The questionnaire was a 28-item survey that was based on the scales: working with groups, understanding self, communicating, making decisions, and leadership. Conclusions showed that school tour guides were developing leadership life skills through their participation. The most influential demographic characteristics were gender, previous leadership experiences, and ethnicity. Females and those participants who had had previous leadership experiences had stronger perceptions of their leadership life skills. In addition, African Americans, Asian Americans, Hispanics, and Anglos all had stronger perceptions of their leadership life skills when compared to Native Americans.

**STUDENT DEMOGRAPHICS, EXTRACURRICULAR PARTICIPATION AND  
SAFETY EDUCATION OF STUDENTS PARTICIPATING IN THE 2003 HOUSTON  
LIVESTOCK SHOW AND RODEO AGRICULTURAL MECHANICS PROJECT SHOW**

Doug Ullrich, Dwayne Pavelock, Joe Muller, and Billy Harrell  
Sam Houston State University

The Houston Livestock Show and Rodeo Agricultural Mechanics Project Show is the largest show of its kind in Texas, and perhaps the largest in the nation. This extracurricular activity provides students and agricultural education programs an opportunity to display skills developed in agricultural mechanics laboratories by exhibiting projects constructed entirely by students. Projects such as gooseneck trailers, bulk feeders, cattle chutes, truck bumpers, and tractor accessories are designed, constructed and exhibited. It is perhaps the most comprehensive opportunity for authentic assessment in agricultural education.

The primary method of data collection for this descriptive study was a survey completed and collected during the 2003 Project Show. Results of the study revealed that an overwhelming percentage of students in the activity were white males. Surprisingly over one-third indicated the FFA was the only extracurricular activity in which they participated. Regarding safety, more than 90% indicated they had taken a safety exam and received instruction in topics such as fire, ear/hearing, tool, chemical, greenhouse, and eye safety. Unfortunately, just over three-fourths had learned about electrical safety, and even lower percentages had received instruction on electrical and equipment safety. More than two out of five students indicated they were not required to wear eye protection in the agricultural mechanics laboratory, and almost four out of five were not required to wear ear/hearing protection.



**VOLUNTEER ADMINISTRATION LEADERSHIP PROFICIENCY AND LEADERSHIP STYLES: PERCEPTIONS OF SOUTHERN REGION 4-H COUNTY FACULTY**

A Critique by Tony Brannon, Murray State University

Volunteer leaders have always been very important to the 4-H program. The purpose of this study was to establish baseline data related to southern region 4-H county faculty leadership of volunteer programs. The introduction and theoretical framework were soundly developed, solid and logical. The theoretical framework included an in-depth review of both volunteer administration and leadership styles. The purpose and objectives were clearly stated and the objectives served as an outline for the presentation of the remainder of the paper. The procedures were clearly explained and thorough. The conclusions, discussion, implications and recommendations presented were identified as a great strength of this paper. The manuscript is well written with only a few errors.

I believe that Objective 2 could be stated more clearly. There appears to be grammatical errors and/or an extra “in” that left me saying “huh” after I read it. In the procedures it states “the double dipping technique was used to determine if nonresponse was a concern”. That concern was not specifically answered and with only 34 responses from a regional study it becomes an even more relevant question. In the conclusions section, several comparisons are made to the national studies that, while interesting, are beyond the scope and findings of this paper.

Questions that came to mind as I read the paper are:

- 1) How would the Importance competency ratings of county faculty, as identified, relate to those of Cooperative Extension teacher educators and administrators?
- 2) Why is the proficiency in the areas of management and accountability perceived to be much lower than the other categories? Does the perceived lower proficiency in the areas of management and accountability affect the lower ratings in the perceived “importance” category

Overall, this was an interesting study with important implications to the 4-H program.

**NATIONAL FFA CAREER DEVELOPMENT EVENTS:  
AN INTROSPECTIVE INQUIRY**

A Critique by Tony Brannon, Murray State University

The primary mission of the FFA is to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. The National FFA Organization has targeted career development events (CDE's) as one mechanism to accomplish this mission. The purpose of this study was to determine why students participate in national career development events and to examine factors related to their participation. The authors are to be commended for conducting this introspective inquiry of a very timely and important topic. The introduction and theoretical framework were soundly developed, solid and logical. The purpose and objectives were clearly stated and the research questions served as an outline for the presentation of the remainder of the paper. The scope of the study was large as the results of the study came from over 2000 FFA members and 200 teachers. The conclusions, discussion, implications and recommendations presented were identified as a great strength of this paper. The manuscript is very well written.

The lack of clarity in the procedures, methodology and resulting findings were found to be somewhat problematic in this paper. There is no mention of the total population of students who competed in these contests or the number of advisors; therefore the % completion is not mentioned. Assuming that most teams are 4 members, there should have been over 500 teachers available. Were the students and teachers truly representative of the total population or just those that were available? Perhaps a little more detail in the Procedures/Methodology section about collection of data could have clarified the study and added to the paper. It is mentioned that a team of professional educators who work closely with National FFA Career Development events developed the instrument and a note in the findings states that "the National FFA had students check one of eleven categories" that caused "unwieldiness of these data" and necessary regrouping. Were the authors involved in the instrument design or did the National FFA design the survey? In retrospect, I believe that several areas could have been improved by changes in the instrument.

Care must be exercised in making the comparison between student and teacher perceptions of the reason for participation in national career development events. It appears that the questions asked of these two groups were dissimilar with students being asked "regarding their participation" and teachers being asked "why students are motivated to prepare for cde's". Also, the answer choice categories in these two questions are not aligned with five possible responses for students and six possible responses (only four in common) for the students. One might ask why the possible answer "encouraged by agriculture teacher" was left off the student question while being included on the advisor question. Questions that came to mind as I read the paper are:

- 1) How many of the students participating had already graduated from school and entered college or the workforce? Isn't it surprising and/or conflicting that 70% of the students participating would pursue a degree in another field other than the food, fiber and natural resources area?

- 2) If the most important item regarding the students decision to participate in a national career development event is “relating to career choice”, why do only less than 20% (13% in CDE area and 7% outside of CDE area) plan to seek a career in food, fiber and natural resource industry?
- 3) If 7% say that the CDE had no relationship to the curriculum, why are they competing in the national contest?

I guess that my overriding question is “How would these results differ if we surveyed students who are participating in the initial stages of the CDE’s at the local level rather than at the national level? Overall, this was an interesting study with important implications to the profession.

**DEVELOPMENT OF YOUTH LEADERSHIP LIFE SKILLS OF TEXAS YOUTH AS  
SAN ANTONIO LIVESTOCK EXPOSITION SCHOOL TOUR GUIDES**

A Critique by Tony Brannon, Murray State University

Leadership life skill development is a primary aim of the FFA and several youth leadership organizations. Livestock shows are one of the primary means of exhibited SAE projects of members. Combining the two activities, the San Antonio Livestock exposition has created a means to offer students the opportunity to serve as tour guides for elementary children. The purpose of this study was to determine if Texas 4-H, FFA and FCCLA members developed youth leadership life skills from their participation as school tour guides. The introduction and theoretical framework were soundly developed, solid and logical. The theoretical framework included an in-depth review of relevant literature relating to leadership life skills. The purpose and objectives were clearly stated and the objectives served as an outline for the presentation of the remainder of the paper. The conclusions, discussion, implications and recommendations presented were based on the findings of this study. The manuscript is well written with only a few errors.

There were a total of 1691 surveys returned by participants who attended the afternoon exit meeting. Did all guides attend this meeting and did they all return the surveys? It would be helpful to know the total number of guides that participated in the process so the readers would know the percent of the guides that returned the survey. The findings are clearly presented and the statistical analyses are easily understood. However, there are some problems with Table 5. The asterisks indicating  $p < .05$  and  $p < .01$  seem to be reversed. Also, the means determined as different by the Tukey HSD post hoc comparison and represented by letters appear to be mixed up on at least the communicating and leadership scales. There are several instances in the conclusion section where the findings are repeated and presented as conclusions. The questions on the survey appear to be self-reported “perceptions” of leadership development. Care should be taken when transferring this data to conclusions and recommendations that appear to be “absolute” rather than “perceived”. This occurs in several instances in the conclusions, recommendations and abstract.

Questions that came to mind as I read the paper are:

- 1) Why do females in this study perceive a stronger agreement with leadership life skill development as related to this activity than males? Do females in other studies also have stronger perceptions of leadership life skills?
- 2) Although there is statistical significance in the Native Americans perception on leadership life skills, is there reason to believe that it is practically important or is it simply as a result of the low percentage of inclusion of Native Americans as tour guides.

Overall, this was an interesting study with important implications to the San Antonio Livestock Show tour guide program.

**STUDENT DEMOGRAPHICS, EXTRACURRICULAR PARTICIPATION AND  
SAFETY EDUCATION OF STUDENTS PARTICIPATING IN THE  
2003 HOUSTON LIVESTOCK SHOW AND RODEO  
AGRICULTURAL MECHANICS PROJECT SHOW**

A Critique by Tony Brannon, Murray State University

Agriculture mechanics is an important part of the program of instruction in agricultural education. Agricultural mechanics exhibits/project shows connected with state fairs and or events is indeed one way of providing authentic assessment. The purpose of this study was to gather data concerning the participating students in the Houston Livestock Show and Rodeo's Agricultural Mechanics Project Show. The introduction and theoretical framework were soundly developed, solid and logical. The theoretical framework included an in-depth review of relevant literature. The purpose and objectives were clearly stated and the objectives served as an outline for the presentation of the remainder of the paper. The conclusions, discussion, implications and recommendations presented were based on the findings of this study. The manuscript is well written with only a few errors.

In the procedures section, it states that "students and teachers returned 568 surveys or 87.38% of those distributed". According to the title and purpose of the study this was research conducted on the "students" involved with this project. Were there efforts taken to insure that only those students who were participants filled out the survey? The statement that teachers returned the surveys would lead one to believe that some teachers may have filled out the survey for their students thus affecting the validity of the study. Are the students who actually completed the project required to be in attendance at check-in and set-up. Perhaps more detail in this area of the paper could have clarified some of these questions.

Questions that came to mind as I read the paper are:

- 1) Do students involved in Agricultural Mechanics tend to be less active in extra curricular activities than other students in FFA?
- 2) Does the gender/ethnicity of participants in this project show mirror the composition of the students enrolled in Agricultural Mechanics classes?
- 3) Given the fact that typically only the "premier or at least very good agricultural mechanics programs" exhibit in project shows of this kind, what could we expect the safety training of the lesser programs or those not exhibiting to be? Is this of concern?

Overall, this was an interesting study with important implications to the Agricultural Mechanics program in Texas.

**THE PROCESS OF SUPERVISION WITH STUDENT TEACHER CHOICE: A QUALITATIVE STUDY**

Carrie A. Fritz, University of Tennessee  
Michelle Stumbo, University of Tennessee

The purpose of this qualitative study was to explore three student teachers' development based on their selection of supervision. Student teachers majoring in agricultural education from a Southern state selected different avenues of supervision. One selected clinical supervision, one selected contextual supervision, and one selected cooperative professional development (an option from the differentiated supervision model). In addition, student teachers identified their leadership style, confronted their concerns related to teaching, analyzed their teaching style, and described the support they received from their cooperating teacher.

**A PROFILE OF COOPERATING TEACHERS AND CENTERS IN OKLAHOMA: IMPLICATIONS FOR THE STUDENT TEACHING EXPERIENCE IN AGRICULTURAL EDUCATION**

R. Brent Young, Oklahoma State University  
M. Craig Edwards, Oklahoma State University

This inquiry is the first systematic study of cooperating teachers' perceptions of the agricultural education student teaching experience in Oklahoma in more than three decades. The sampling frame (N = 64) included cooperating teachers representing 55 student teaching centers. A questionnaire was sent to cooperators via postal mail. The instrument included 13 items identifying selected characteristics of cooperating teachers and centers. In addition, teachers rated 34 elements of the student teaching experience using a Likert-type scale ("5" = "High Importance . . . "1" = "No Importance"); final return rate was 77%. Cronbach's coefficient alpha reliability estimates for five core areas of the student teaching experience ranged from .47 to .87; the overall importance scale yielded an estimate of .93. Respondents rated 33 of 34 elements as having "much importance" or greater (M > 4.00). The highest rated element was "a well rounded program emphasizing instruction, SAEs, and youth leadership activities" (M = 4.92; SD = .34). The core area "Cooperating Teacher-Student Teacher Relationships" accounted for seven of the ten highest rated elements. Recommendations and implications point to the need for greater diversity in cooperating teachers and centers, for instrument redesign as related to the construct of instruction, and for the provision of targeted professional development opportunities for cooperating teachers.

**CAREER DECISIONS OF PRESERVICE AGRICULTURAL EDUCATION  
TEACHERS: A SYNTHESIS OF RESEARCH**

Steven J. Rocca and Shannon G. Washburn, University of Florida

This study synthesized research in agricultural education and other related disciplines to better understand the factors that contribute to preservice students' decisions to pursue a teaching career in agricultural education. Preservice students who chose to teach were found to perform academically as well or better than their peers who elected not to teach. This study extends the search for career decision literature to include research related to the Social Cognitive Career Theory (Lent, Brown, & Hackett, 1994). SCCT appears to be an ideal theory for explaining the development of career interests and decisions in agricultural education graduates because it focuses on specific mechanisms (self-efficacy, outcome expectations, and goals) that shape interests and choices related to entry into the profession. SCCT may provide a basis for further research and greater understanding of the decision-making process of preservice agricultural teachers. Several research recommendations are provided to guide future studies.

**CHALLENGES EXPRESSED BY COOPERATING TEACHERS WHEN WORKING  
WITH STUDENT TEACHERS IN AGRICULTURAL EDUCATION:  
A DELPHI STUDY**

Carrie A. Fritz and Lori J. Mantooth, University of Tennessee

This study developed a prioritized list of cooperating teacher challenges when working with student teachers in hope of improving a teacher education program at the University of Tennessee. It also determined if there were different challenges between the eastern, middle, and western region cooperating teachers of Tennessee. Results of this study were obtained by utilizing a modified Delphi technique to reach group consensus. Consensus was reached on eight challenges. Some of those challenges included student teachers' discipline procedures, work ethic, time management skills, lack of knowledge in some curriculum areas, and preparing student teachers to take full responsibility of the classroom. Regional representation of cooperating teacher challenges was also established. The eastern region primarily reached consensus on student teacher challenges in the area of discipline procedures, work ethic, and taking full responsibility of the classroom. The middle region reached consensus on challenges with student teachers in the area of discipline procedures, work ethic, lack of knowledge of different teaching styles, time management skills, taking full responsibility of the classroom, lack of knowledge in some curriculum areas, and not devoting time to extracurricular activities (e.g., contests, training teams, SAE visits, chapter events). The western region reached consensus on challenges with student teachers in the area of discipline procedures, work ethic, time management skills, trying to be the high school students' "buddy," taking full responsibility of the classroom, exposing student teachers to activities that occurred the prior semester because it is on their student teaching checklist, student teachers thinking they can teach like someone who has taught for years but lack experience and good judgment, getting student teachers to understand diverse learning abilities, working off-campus visits into the student teaching time frame, and ensuring that high school students don't suffer academically from the student teacher.

## **THE PROCESS OF SUPERVISION WITH STUDENT TEACHER CHOICE: A QUALITATIVE STUDY**

A Critique by Gary Moore, North Carolina State University

I found this to be a very interesting paper. This study was a qualitative study that focused on three student teachers. There are some differences of opinion in the profession regarding the value, appropriateness and use or misuse of qualitative studies. The purpose of this critique is not to enter into that debate. We can learn from all types of research. The researchers have clearly stated this study is not generalizable outside the three individuals involved in the study. So let's focus on questions or issues that emerge from this paper.

The first question I would raise is should student teachers select the supervision method they want used? I can understand the rationale for differentiated modes of supervision in a school system where you have individuals with various levels of experience and expertise. However, we are talking about beginning rookies in this situation. They are all starting with basically the same level of experience. Therefore, I am not sure if I buy the argument that it is desirable to let each student teacher select the mode of supervision to be used. We, as teacher educators, have the professional expertise to determine how we should approach the supervision of each student teacher. It has been my experience that not all student teachers can assess their own level of competence in an objective manner. What they think they need and what they really need may be too different issues. I do have concerns about the underlying rationale for allowing student teachers to select how they want to be supervised. In theory it sounds great.

And I am not sure how feasible it would be to implement this type of system in a program with a larger number of student teachers. This semester we have 21 student teachers at North Carolina State University who are scattered all over the state and there are six university supervisors. In this type of situation, it might be challenging to implement such a supervision scheme.

My concern about allowing students to pick their own supervision mode was heightened after viewing the concept maps of the student's teaching style. Frankly I was shocked. It appears as if the high school students are in charge of the teaching-learning process in two situations. The two concept maps show a forked road approach where the student teacher lectures "if the students are in a bad mood." It appears to me the high school students have conditioned the student teachers to react in Pavlovian manner and the high school students are in charge. The third student lectures because he isn't smart or creative enough to do anything else. I found the student teachers' approach to teaching unacceptable. They need some very specific coaching and supervision, regardless of how they want to be supervised.

The authors of the paper state "Like most student teachers, they relied heavily on lecture but were incorporating some hands-on activities into the classroom by the end of the semester." Am I the only one bothered by this statement? It seems to me that the entire teaching-learning process could have been enhanced if hands-on activities were used from the get-go. By allowing the student teachers to determine how they want to be supervised, have the university supervisors abrogated their responsibility?



While the focus of the paper was not on how to select supervising teachers, I do have a concern when 2 out of 3 student teachers report they received little to no help from their supervising teacher. It is likely that supervising teachers have a much greater impact on the professional development of the student teacher than the university supervisor. Accordingly, great care should be exercise in selecting supervising teachers.

The researchers state “One can conclude that these student teachers selected the supervisory model that would augment their professional growth and was appropriate for their current developmental level.” Based upon the data presented in the paper, I would be hard pressed to arrive at the same conclusion. I started the paper having concerns about letting students choose how they want to be supervised. After having read the paper, my concerns have only been heightened. The first two questions posed by the researchers for future research address these concerns:

1. What are the long term impacts for student teachers having ownership in the supervisory process?
2. Are student teachers that received the relatively unstructured model of supervision more/less developed as teachers than those that received the structured supervision model?

Before we adopt this approach to student teacher supervision, these two questions must be answered.

The authors of the paper should be commended for opening a new chapter in the book on student teacher supervision. The approach to student teacher supervision advocated by the researchers does cause one to pause and think. Anytime we get the profession to think about practice, we have accomplished something. And we all need to be reminded from time to time about the concerns and issues facing student teachers. While we may not like the approach to teaching used by these student teachers, we can appreciate their frankness and honesty in trying to figure out how to cope and survive in the real world of teaching.

**A PROFILE OF COOPERATING TEACHERS AND CENTERS IN OKLAHOMA:  
IMPLICATIONS FOR THE STUDENT TEACHING EXPERIENCE IN  
AGRICULTURAL EDUCATION**

A Critique by Gary Moore, North Carolina State University

This is very straightforward paper looking at cooperating teachers in Oklahoma. The research is methodologically sound. An established instrument was used which has one section, that the researchers acknowledge, may need a little refinement because of the low reliability. The response rate was acceptable. One of the strengths of the paper was the thorough literature review. The authors have identified the more important and salient past studies. The overall conduct of the research can be summarized with the statement, "Well done."

In reviewing how the research was reported, the only problem area this reviewer found had to do with the reporting of the school size (Table 2). The size categories of the school were not all inclusive. For example one category of school size was 365-618. The next category was 659-1229. If a school had 619-658 students, where would they fall? The problem also exists in the next set of school sizes. There is a gap between schools with 1229 and 1275 students.

It was refreshing to see the rankings of the teachers on what they perceived to be important. A well rounded program, a positive attitude, and being a good role model were the top three items. These reflect a high degree of professionalism. In addition to the future research studies suggested by the researchers, it might be interesting to see if the student teachers perceived their cooperating teachers to indeed be role models, have positive attitudes and operate well rounded programs.

The recommendations of the researchers appear to be on target. The fact that there are so few female cooperating teachers does need to be looked at. I was somewhat surprised that more teachers did not have their Master's degree. This should be a concern. Looking for schools with more diverse facilities is also a valid recommendation. And SAE should be looked at.

The authors of the paper do a good job in establishing the importance of the cooperating teacher and selecting quality student teaching centers. All of us need to look at the important characteristics identified in this research and make sure that the student teaching centers in our own states measure up. A quality supervising teacher and center are critically important regardless of where we are.

**CAREER DECISIONS OF PRESERVICE AGRICULTURAL EDUCATION  
TEACHERS: A SYNTHESIS OF RESEARCH**

A Critique by Gary Moore, North Carolina State University

Once upon a time in agricultural education, there was a formal process by which the research literature of the past X number of years (often 10 years) was analyzed and synthesized. The syntheses were published and made available to the profession. These documents were interesting and informative. I believe either Newcomb or McCracken was responsible for the last such synthesis and that was probably 20 years ago. More recently we have seen Dyer and often Williams involved in synthesizing the research literature in selected areas of agricultural education and publishing the results in the *Journal of Agricultural Education*. People who do this type of research are to be commended for taking the time and effort to “corral” the literature and for finding the common themes and threads in our research. These researchers provide the big picture that we often miss when we focus just on individual research studies.

Rocca and Washburn are to be commended for their attempt to synthesize the literature related to career decision making of preservice agricultural education teachers. This is a very difficult task in an area in which we don’t know a whole lot. Many of us wouldn’t even attempt such a difficult task. The paper has two distinct sections. The first part of this paper does indeed look at the agricultural education literature related to career decision making. However, the major portion of this paper focuses on explaining the Social Cognitive Career Theory (SCCT). The further one gets into the paper, the more one gets the feeling this is primarily an academic exercise. The authors go into great detail explaining the SCCT model and conclude that this model could be helpful in agricultural education. The authors state that “The primary objective of this investigation was to synthesize the research related to the Social Cognitive Career Theory (SCCT) as posited by Lent, Brown, and Hackett (1994).” So if we had a “truth in titling research papers” law in agricultural education, we might need to re-examine the title of this paper.

In writing research papers I would caution the authors to watch the use of such statements as “...the agricultural education literature provides little explanation of the factors that contribute to the teacher shortage. “ There are those who might argue that the 25+ studies on why teachers leave the profession might provide some explanation. It is realized the authors are focusing on why teachers enter teaching, not why they leave, but both contribute to the teacher shortage.

The authors state “Utilizing the SCCT model and its central constructs may provide agricultural education researchers with a guiding framework for studies to better understand the career decisions of preservice agriculture teachers.” It will be interesting five years from now to look back and see if the SCCT model has been utilized in any of our research. The reason for this remark is that studying career decision making is akin to looking for a needle in a haystack. There are various theories in the physical sciences that can be proved or disproved. It is much more difficult in the social sciences to work with the various theories. The literature related to career decision making is replete with competing theories ranging from trait theories to the accident theory of career choice. The authors of this paper are to be thanked for bringing this theory to the attention of the profession. The question is what will we do with this information?

**CHALLENGES EXPRESSED BY COOPERATING TEACHERS WHEN WORKING  
WITH STUDENT TEACHERS IN AGRICULTURAL EDUCATION:  
A DELPHI STUDY**

A Critique by Gary Moore, North Carolina State University

This research sought to identify the concerns cooperating teachers had in working with student teachers in Tennessee. A modified Delphi technique was used. The manner in which the Delphi process was implemented was clearly explained and appears to be a very appropriate approach to identifying the concerns of the cooperating teachers. The overall results make sense. This type of research is very practical and our profession could use more research of this type. The study could be easily implemented in other states.

The few methodological concerns I have are minor. As a profession, there are a few practices we use that may need some attention. One is establishing the face or content validity of our research instruments. We typically have a “panel of professionals” at our university examine our instrument. In practice this typically means we have a graduate assistant or two and a colleague or two take a quick look at the instrument and say it looks OK. I am just as guilty as anyone in regards to this. Since the research instrument provides the foundation for the entire study, we should take the establishment of face validity more seriously and even involve colleagues from other institutions in doing this. I am not criticizing the researchers for what was done; I am sure it was done correctly, but we as profession do need to make sure our instruments are quality instruments and measure what they purport to measure.

The main issue I have with this research study had to do with the comparison of cooperating teachers in three regions. A rationale for comparing the three regions were given but when you end up with either 20 teachers (round 2) or 13 teachers (round 3) in total, dividing them into three groups and comparing the means may not provide very useful information. It appears there were 4-7 teachers representing each region. The differences that do exist could easily happen by chance. Reporting results by regions based upon such a small N in each region is hard to defend from a research standpoint. This takes away from a study that can easily stand on its own merit.

**CORRELATIONAL AND PREDICTIVE ATTRIBUTES OF DEMOGRAPHIC FACTORS AND THEIR RELATIONSHIP TO HISPANIC PARTICIPATION IN TEXAS EXTENSION PROGRAMS**

Ruben J. Saldaña, Texas Cooperative Extension Service  
David Lawver, Texas Tech University  
James Lindner & Scott Cummings, Texas A&M University  
Hansel Burley & Marvin Cepica, Texas Tech University

This causal-comparative study examined relationships between 13 demographic variables and levels of Hispanic participation in Texas Extension programs. Parity was used as measure of participation and parity levels ranged from 38.9% - 99.7% for state goals and from 6% to 251% for statewide initiatives. Hispanic participation in county programs varied from 0% to 409% parity. Variables were collected through a web-based instrument and through data provided by human resource departments. A population of 332 county faculty from TCE (1862) and CEP (1890) were studied. Variables with statistically significant predictive characteristics in their B value included ANR (-36.36), 4-H (20.02), non-urban (-23.08), and committee parity (.10). Those variables with positive correlations had the potential to increase Hispanic participation while those with negative correlations could be detrimental to Hispanic participation. It was also concluded that experience, education, and certain titles are not associated with Hispanic participation. Certain demographic variables could be used to predict increases and decreases in Hispanic participation when used in a regression model.

**FACTORS CONTRIBUTING TO VOLUNTEER ADMINISTRATION LEADERSHIP PROFICIENCY OF SOUTHERN REGION 4-H COUNTY FACULTY**

Nicole L.P. Stedman, Texas A&M University  
Rick D. Rudd, University of Florida

Volunteer administration leadership is an important component of any successful 4-H program. Proficiency in competencies associated with volunteer administration can prove to be one's greatest asset in his/her ability to successfully develop the leadership of youth. With that, leadership style is also an important consideration because it provides a means for working with individuals and reaching programmatic goals. The purpose of this research was to determine factors, which contribute to volunteer administration leadership proficiency of 4-H county faculty in the southern region. In order to do this demographics were analyzed, as well as, correlations among identified independent variables. The primary intent was to develop a prediction equation for perceived proficiency in VAL competence. Seven variables correlated with perceived proficiency in VAL competence; however, two were found to have the greatest predictability of VAL proficiency. Organizational culture (importance) and age were responsible for 43% of the variation in the model. These factors can guide efforts related to volunteer programming, including professional development opportunities for 4-H county faculty in the southern region. A focused curriculum addressing organizational culture and a mentoring program for faculty has the potential to increase VAL proficiency.

**FUTURE JOB OPENINGS IN THE FIELD OF AGRICULTURAL EDUCATION AND COMMUNICATION**

David W.W. Jones and Rick Rudd, University of Florida

This study was conducted to ascertain the future job market for doctoral students in the Agricultural Education and Communication profession. Data were obtained from department heads and chairs of Agricultural Education and Communication departments (n=49) throughout the United States. The study collected data regarding the continued need for graduate students in doctoral programs as well as specific academic program areas that will promote the continuation of Agricultural Education and Communication instruction at the post-secondary level. The researchers concluded that the job market for future Ph.D. candidates is positive. The research also implies that there are enough graduate students in programs throughout the country to fill current and anticipated faculty-teaching positions upon completion of their degree. Universities and colleges throughout the country may utilize this study in their efforts to recruit graduate students in program areas that constitute Agricultural Education and Communication departments. Graduate students may utilize this study to make their decision to pursue a graduate degree. Further, this study compiled information in regards to what perspective departments or programs are looking for in their new faculty members. This research provides themes as well as individual components that department heads or chairs are looking for in new hires. The information provided here shows a positive outlook for Ph.D. candidates and Agricultural Education and Communication departments for the future of the profession.

**CHARACTERISTICS OF CREATIVE COUNTY EXTENSION PROGRAMS IN TEXAS:  
COMPARISON OF ADMINISTRATIVE PERCEPTIONS TO OBSERVATIONS IN  
IDENTIFIED CREATIVE PROGRAMS**

Michael Womack, Texas Cooperative Extension  
Matt Baker, Texas Tech University  
Kim E. Dooley, Texas A&M University

A study was conducted to determine characteristics of creative county extension programs. State and mid-level administrators provided their perceptions of creative program attributes via questionnaires. Seventeen creative programs identified by mid-level administrators were examined through informal interviews. Creative attributes perceived by administrators were then qualitatively compared to characteristics revealed through county agent program descriptions. Characteristics identified by administrators varied. The most commonly identified characteristics of creative programs by administrators were reaching new audiences, having a target audience, addressing relevant issues, and using new, non-traditional. Technology, marketing, outside funding, and teamwork were identified at lower levels. Program examination revealed the same characteristics. Examination of agent responses revealed that creative programs typically used a variety of delivery methods, an activity-based component, and multiple teaching experiences in the form of a series or an intensive workshop. Collaboration, targeted marketing, audience convenience factors, and teamwork were also found at higher levels in program examination than in administrative perspectives. Closer inspection of creative

programs revealed that sufficient time to plan and implement programs was critical to developing creative programs. Many of the identified programs were outcome programs or interdisciplinary programs which are planned and evaluated at a higher level of scrutiny. The creative programs examined also relied heavily on components of accepted program development models including issue identification, target audience identification, grassroots planning, and evaluation as a framework for success.

**CORRELATIONAL AND PREDICTIVE ATTRIBUTES OF DEMOGRAPHIC FACTORS AND THEIR RELATIONSHIP TO HISPANIC PARTICIPATION IN TEXAS EXTENSION PROGRAMS**

A Critique by Randol Waters, Professor – The University of Tennessee

This is an interesting article that reports findings from a quantitative study that attempts to explain the level of parity of Hispanic participation in Texas Extension education programs with a number of demographic variables about the agents and the programs delivered within the counties reporting Hispanic program participation. While I've read numerous statistical summaries and descriptive studies reported from these types of data, this is one of the first studies of data of this type that I have read which goes beyond simply describing what was found. This study actually attempts to develop some logical suggestions to improve parity in minority participation based upon what has been learned. I commend the authors for using what I perceive to be a novel approach to analyzing very traditionally collected federal civil rights data.

Being somewhat familiar with the traditional means by which Extension systems collect their annual civil rights contact data, I would suspect that the issue of "multiple entries of single contacts" and other common reporting inaccuracies are factors that will cause some errors in the statistical conclusions drawn from these data. However, even with that error variance potential, I think this is an innovative use of data that has produced some very practical information and recommendations in support of Extension's goal of reaching parity for minority participation in our programs. While the recommendations are not terribly different from ones that have been given to Extension administrators by civil rights auditors for years, this study adds to the credibility of civil rights audits by producing credible evidence in support of those recommendations.

Participation parity is often described as an abstract concept that many Extension agents perceive to be unachievable in the "real world". However, hard evidence that indicates variables like "planning committee parity", "agent ethnicity" and "urban vs rural programming priority" significantly explain differences in Hispanic program participation parity helps to refute those perceptions. Recommendations from this research should be implemented and follow-up studies should be conducted to see if implementation creates substantive improvements in program participation parity. If findings from follow-up studies are indicative of positive change in parity, this Extension program should be used as a model to assist other statewide Extension systems in reaching program minority participation parity.

In summary, this is an interesting study that could contribute significantly to reaching minority participation parity in the Texas Extension System. I commend the authors for conducting the study and I hope to see follow-up reports regarding progress in parity based upon implementation of the findings from it.



**FACTORS CONTRIBUTING TO VOLUNTEER ADMINISTRATION LEADERSHIP  
PROFICIENCY OF SOUTHERN REGION 4-H COUNTY FACULTY**

A Critique by Randol Waters, Professor – The University of Tennessee

In this paper the authors attempt to report “regional findings” from a “national study”. While this goal may appear to be worthy at the onset, I have serious concerns about the sampling procedures used by the researchers in their attempt to regionalize findings from a sample that was drawn for a national study. To conduct a national study that would yield any credible conclusions (at least a 95 percent confidence interval), the researchers would need to randomly select approximately 400 4-H agents (or possibly fewer) from a valid sampling frame of all 4-H agents in the United States. If an adequate sampling frame is unavailable, the researchers could use one of several probability sampling techniques and still develop a valid sample for their study (stratification, clustering, etc.), but the required sample size would still be approximately the same in order to generalize findings to all 4-H agents in the United States. Once that national sample is drawn, simply “lifting out” the 65 participants who just happened to live in the southern region does not produce an adequate sample from which to draw any conclusions for the southern region of the United States. The fact that only 34 of those lifted from the *national* sample chose to participate in the *national* study makes conclusions drawn from the *national* study “questionable” . . . but it makes conclusions from a *regional* study virtually useless.

If the authors want to conduct a study with findings that can be generalized to all 4-H agents in the southern region, they need to draw a random sample from the population within that region which is large enough to produce the same reliability in their findings as was drawn for the national study they intended to conduct originally. While I don’t have the population sampling frame from which to verify my estimate, I would guess that the sample size required to produce at least 95 percent confidence in findings from a southern region study would be approximately the *same* as that needed to conduct a national study. There are two well referenced mathematical formulas commonly used to calculate needed sample size for studies like the one reported in this paper. The simplest of the two formulas is useful when the population is “large” (greater than 10,000) and the second formula, while slightly more difficult to calculate, is more useful when the population is “small”. However, to my knowledge there is no statistician who would recommend a sample size of 65 (much less 34) as a credible sample to use in an inferential study. The population from which that sample would be drawn is so small that it would be much easier to survey the entire census and thus conduct a descriptive study.

The national study to which the authors refer several times in this paper sounds as if it has merit and I look forward to reading it, even though I haven’t had the pleasure of doing so yet. While I commend the authors for choosing a potentially interesting topic and developing an adequate theoretical framework from which to conduct a study of factors contributing to volunteer administration leadership proficiency of county 4-H faculty, their attempt to stretch their data into yet one more published article has, in my opinion, gone beyond the limits of what one could call “good research”. Had they wanted to conduct a “regional study”, they should have drawn an adequate sample from a “regional sampling frame”. While either study is achievable and would be of interest to our profession, it is no more possible to draw a national sample from which to generalize findings to a region than it is to draw a regional sample from which to generalize findings to a nation.

**FUTURE JOB OPENINGS IN THE FIELD OF  
AGRICULTURAL EDUCATION AND COMMUNICATION**

A Critique by Jim Flowers, North Carolina State University

Given the status of the supply and demand for faculty positions in agricultural education (in its broadest sense), one has to agree that this is a timely study. The author refers to the field as Agricultural Education and Communication, which is understandable considering his home department, but the study clearly includes Extension, Leadership, and perhaps other components that make up the broad field of agricultural education. While the situation changes on a weekly basis, it is not uncommon for our profession to have 20 searches being conducted for positions that could be filled by graduates of doctoral programs in agricultural education. The authors pose an interesting question, “Will this trend continue?”

The introduction to the study adequately described the context for the study. The one question that seemed to arise in the introduction, but was not included in the study was how many of the doctoral students in agricultural education would, in fact, be seeking faculty positions within our departments? Perhaps the authors felt the respondents would not know the answer to that question (and that may be a valid assumption in many cases). Nevertheless, it is an important piece of the puzzle—and without that piece, I don’t believe that we can really reach a conclusion about whether we have an adequate supply of graduate students preparing to be faculty members. For example, it has been my observation that many doctoral students in Extension are people who are currently employed in Cooperative Extension, but are completing doctoral programs in order to qualify for administrative positions. This is true to a lesser degree in Agricultural Teacher Education. These individuals may have no desire/intention of ever entering a faculty position at a university.

The data were presented in a clear and concise fashion. The information was fairly straightforward and did not need a lot of interpretation. The only confusing element was that in Table 4 the authors reported the number of openings anticipated by the respondents, and in Table 5 reported the number of institutions that anticipated openings. If an institution had multiple openings anticipated, we would have a hard time determining in which program area those additional positions would be needed.

I am not sure that I agree that reliability of the responses is not a concern. (There were no reliability estimates reported.) It would seem to be important that stability, as a measure of the reliability, be assessed in order to determine if the responses were simply being “pulled out of thin air.” The timing of the questionnaire may have influenced this. Suppose the responses were being made at the time that one or two faculty were being heavily recruited by other universities, but later chose to remain in their present positions. This could have influenced the responses somewhat. Of course, the farther into the future one has to predict, the less accurate the responses are likely to be. In addition to instrument reliability, the other methodological concern is related to controlling nonresponse error. The authors state that they followed Dillman’s procedures for collecting data, but they are vague on how they dealt with the 62% response rate. In their defense, they do caution the reader not to generalize the results beyond the respondents.

**CHARACTERISTICS OF CREATIVE COUNTY EXTENSION PROGRAMS IN TEXAS: COMPARISON OF ADMINISTRATIVE PERCEPTIONS TO OBSERVATIONS IN IDENTIFIED CREATIVE PROGRAMS**

A Critique by Randol Waters, Professor – The University of Tennessee

If indeed “Beauty is in the eye of the beholder”, these researchers are to be commended for attempting to identify what constitutes “creativity” in Extension programming by asking those who are responsible for assessing that creativity to define it. Since it is most often the upper and mid-level Extension administrators who recognize and reward “creativity” in the Extension system, it seems appropriate that they started their research by getting information from these administrators. It should be helpful to agents and other Extension educational program planners if they have a better understanding of what their supervisors and evaluators recognize as “creative”. I commend the researchers for attempting to bring clarity to a very subjective issue. Their purpose is noble and their methodology appears to be sound. It is their findings and conclusions that are, while perhaps valid, somewhat disappointing, but not surprising.

Using a sound qualitative methodology, the researchers arrived at a number of clearly identified themes in their research, including one that suggested “creativity relates to delivery methodology” in that creative programs had methodologies that were “new”, “unusual”, “original” and “different”. Creative programs also appear to be “grant-funded” if administrators are accurately assessing creativity. They are “marketed differently”, have “grass roots planning” and they are “evaluated” (even though there was no mention as to what the evaluation should reveal about the program). While key characteristics and descriptors were mentioned by state level administrators and mid-level administrators, it was interesting to note that even though many of the 17 identified “creative programs” possessed some of these characteristics, many administrators did not use these terms to identify them . . . causing me to agree with the researchers that creativity expectations are poorly defined for county agents and they vary substantively depending upon the supervisor. (Beauty IS, after all, in the eye of the BEHOLDER.). It was also interesting to note that while administrators identified attributes of creativity and agreed that Extension programs should be creative, few criteria in the Extension evaluation standards seemed to address creativity. Does Extension truly value and reward “creativity”?

After reading this qualitative study, I felt compelled to go to some dictionaries and see how they defined “creativity”. The dictionaries produced several interesting descriptors of creativity . . . including: “originality”, “ingenuity” “inventiveness”, “expressiveness”, “imaginative” and (the one I personally like most) “the ability to transcend tradition”. I found it interesting that only one of these terms was discovered in this research (that being “original”). Is creative Extension educational programming not “expressive” and/or “imaginative”? Is it not ingenious? Should it not transcend tradition? After reading this paper, I wonder if we in Extension truly understand “creativity” and whether we truly “value it” and if we truly desire to reward it.

I commend the authors for writing a provocative paper. There are substantive recommendations in their discussion and based upon their findings, I believe there is a serious need to help Extension systems to better define creativity and reward those who are truly conducting “creative Extension educational programs”.

**CHALLENGES OF SERVICE-LEARNING IN TENNESSEE  
4-H YOUTH DEVELOPMENT: A DELPHI STUDY**

Lori Jean Mantooth, University of Tennessee  
Carrie Ann Fritz, University of Tennessee

Service-learning is growing in popularity as a methodology for teaching youth life skills and 4-H project knowledge. Through a modified Delphi technique, a panel comprised of 4-H'ers, volunteers, and agents in Tennessee identified challenges of utilizing service-learning to fulfill the mission of the state's 4-H Youth Development program. The subpanels of 4-H youth, volunteers, and Extension agents found that primary challenges of conducting service-learning projects through 4-H Youth Development include coordination; working around everyone's schedule; and funding. There were some differences among the subpanels' lists and prioritization of the challenges. The study has implications for 4-H leaders, both youth and adult, who employ service-learning as a teaching tool.

**THE IMPACT OF SOCIOECONOMIC STATUS ON LEADERSHIP POTENTIAL IN  
AN AGRICULTURAL LEADERSHIP PROGRAM**

Leah J. Wall, Oklahoma Cooperative Extension Service  
Timothy J. Pettibone, Oklahoma State University  
Kathleen D. Kelsey, Oklahoma State University

Rural leadership programs are designed to teach citizens how to become leaders for the purpose of community improvement. Research has shown that socioeconomic status has a significant impact on an individual's level of participation. Using factor analysis the study tested the impact of socioeconomic status on the leadership and participation of agricultural leadership program graduates at a major land-grant university in the Midwest. Levels of education and income were still significantly related to community commitment. Program directors need to address the effects of tuition and travel expenses to recruit participants from various socioeconomic groups.

**SELECTED TEXAS AGRICULTURAL ORGANIZATION BOARD MEMBERS'  
PERCEPTIONS OF COMMUNICATION METHODS AND THE 2002 FARM BILL**

Christa L. Catchings, Texas A&M University  
Gary J. Wingenbach, Texas A&M University  
Tracy A. Rutherford, Texas A&M University

**Abstract**

The purpose of this study was to identify organizational communication methods and their possible relationship to Texas commodity-specific, general agricultural, and natural resource organization board members' perceptions of FSRI Act of 2002. The seventy participants, from the accessible population (N = 160), were predominantly board members from commodity-specific organizations, ranging in age from 46 to 55 years. The majority of respondents were raised and currently lived on a rural farm or ranch. Respondents had attended college or completed an undergraduate degree.

Selected Texas organizations' board members strongly agreed that their respective organizations wanted to meet their primary objectives regarding the FSRI Act of 2002 and that information about important events or situations were shared within their organizations. Those same respondents strongly agreed that their respective organizations influenced the outcome of the 2002 Farm Bill. Perceptions of organizational communication methods and factors influencing the outcome of the 2002 Farm Bill were summated and correlated. Correlational analyses revealed a significant positive (moderate) relationship between perceived organizational communication methods and perceived levels of factors influencing the outcome of the 2002 Farm Bill. Positive perceptions of farm policy can be increased when specific organizational communication methods are used.

**BENEFITS OF SERVICE-LEARNING IN TENNESSEE  
4-H YOUTH DEVELOPMENT: A DELPHI STUDY**

Lori Jean Mantooth, University of Tennessee  
Carrie Ann Fritz, University of Tennessee

Service-learning is growing in popularity as a methodology for teaching youth life skills and 4-H project knowledge. Through a modified Delphi technique, a panel comprised of Tennessee 4-H'ers, volunteers, and agents identified and prioritized benefits of utilizing service-learning to fulfill the mission of the state's 4-H Youth Development program. The study found that primary benefits of conducting service-learning projects through 4-H Youth Development are getting kids involved in community service; teaching youth dependability, responsibility, and commitment; and developing citizenship skills/civic responsibility. There were some differences among the subpanels' lists and prioritization of the benefits. The study has implications for 4-H leaders, both youth and adult, who employ service-learning as a teaching tool.

**Challenges Of Service-Learning In Tennessee 4-H  
Youth Development: A Delphi Study**

A Critique by James G. Leising, Oklahoma State University

The purpose of this study was to identify the challenges faced by community-based service-learning as perceived by 4-H youth, adult volunteers and agents in Tennessee. The conceptual framework and methodology of this paper parallel the service-learning paper focused on the identification of the benefits of service-learning. The authors are to be commended for studying two important aspects of service-learning in the context of 4-H youth development.

The manuscript included good detail describing the Delphi technique and how the study was conducted. Findings followed the purposes of the study and well-organized tables were used to display the data with narratives to describe the important challenges identified by each group. The conclusions were based on the findings and easy to understand.

Some questions that surfaced included: Why was a standard deviation of 1.5 used as an indicator consensus had been reached among a group on challenges deemed to be important? Little discussion was devoted to challenges rated as “slightly important.” What is the practical difference between challenges found to be “slightly important” compared to challenges found to be “important?”

The authors are be commended for comparing their conclusions with conclusions of other researchers and pointing out that the challenges they identified were found to be the same as other studies: lack of planning time, funding and scheduling. However, due to the 4-H context additional challenges were identified. The findings of this study do have implications for conducting service-learning 4-H programs in Tennessee. Also, the authors should be commended for identifying questions for future study that look at factors that may impact service-learning.

**The Impact of Socioeconomic Status On Leadership Potential In  
An Agricultural Leadership Program**

A Critique by James G. Leising, Oklahoma State University

Agricultural leadership programs have existed for over 20 years in many states, but often little is known about the impact these programs have on the community. The purpose of the study was to test the assumption that participants of an agricultural leadership program with higher socioeconomic status tend to participate at higher levels in rural community development processes than those with lower socioeconomic status. The study developed a strong conceptual framework citing research that supported the notion that socioeconomic gaps in communities can be bridged through leadership programs that include rural community development and involved participants from lower socioeconomic status groups.

The study objectives were focused around identifying factors associated with rural community development processes and determining the relationship between socioeconomic status and participation in rural community development. These objectives supported the overall purpose of this study and were easy to understand. Although only a 43% response rate resulted from the survey, the researchers used double-dipping to determine if differences existed in the responses of respondents and non-respondents, along with early-to-late respondent comparison to insure the data gathered was representative of the population. More information about the survey instrument would be helpful in terms of how it related to the objectives and purposes of the leadership program being assessed. The researchers did a good job to insure that the instrument had face and content validity and high reliability. However, terms such as community development and leadership carry mixed meanings to people so more information about the content of the questions would have been helpful.

Results of this study confirmed similar results as other research that participants' socioeconomic status (levels of education and income) did impact their participation in rural community development processes (community commitment and future directions issues). The discussion and recommendations section of the paper was very interesting. Based on the findings of this study, the researchers recommended that the agricultural leadership program make a number of changes to insure more women and people from lower socioeconomic groups be included in the program. On the surface, this recommendation seems to be a good idea. However, based on the objectives of the leadership program, it appeared that community development might not be one of the overall objectives of the agricultural leadership program. Therefore, the recommendations may not be valid unless the program objectives are revised to include community development.

**Selected Texas Agricultural Organization Board Members' Perceptions Of  
Communication Methods And The 2002 Farm Bill**

Critique by James G. Leising, Oklahoma State University

The purpose of this study was to identify organizational communication methods and their possible relationship to Texas agricultural organizations board members' perceptions of the 2002 Farm Bill. The authors are to be commended for conducting a solid study that has a strong conceptual theory base and clear purpose and objectives.

The target population for the study was all Texas agricultural commodity-specific, general agricultural, and natural resource organization leaders (N=300). It would be helpful for the reader to know why the Farm Bureau membership list was used to purposefully select a sample of 70 organizations leaders. It would appear membership in Farm Bureau could have biased their perceptions? The instrument used to gather the data appeared to have been one used in another study by Sulak (2000), which focused on national commodity board members perceptions of the 1996 Farm Bill. It was not clear how the instruments validity for this study was determined. Cronbach's coefficient alpha was calculated to assess the reliability for two parts of the instrument. It was noted that the coefficient for the scale measuring perceptions of factors influencing the outcome of the 2002 Farm Bill was .58. This coefficient appeared low compared to the second part of the instrument that had a coefficient of .93. Is a coefficient of .58 high enough for part one of the instrument to be reliable?

The researchers are to be commended for moving beyond just identifying perceptions of the three types of agricultural organizations and to determine if a relationship existed between communication methods and perceived factors influencing the 2002 Farm Bill. The researchers reported that a moderate relationship between factors and communication methods existed. I agree that this finding creates many opportunities for future research to study what communication methods are most effective in influencing policy changes. Conclusions of this study were based on the findings and limited to the population studied. Recommendations and implications were insightful and provided ideas for future research in this important area of agriculture public policy.



**Benefits Of Service-Learning In Tennessee  
4-H youth Development: A Delphi Study**

A Critique by James G. Leising, Oklahoma State University

Service learning is popular and is being implemented in secondary schools and colleges throughout the U.S. Therefore, the purpose of this study to identify the benefits of service-learning from the perspective of 4-H youth, volunteers and agents, is timely. The authors are to be commended for development of a strong conceptual framework, purpose and methodology for conducting this study.

The manuscript did a good job of describing the Delphi technique used to gather the perceptions of three different groups regarding the benefits of community-based service-learning. Also, in the findings, results from each round were carefully summarized and presented in a very organized manner to provide the reader with an understanding of each groups' perceived benefits and the importance they placed. Conclusions were based on the findings and followed the purposes of the study.

A general definition of service-learning was provided in the paper, but one wonders how the definition for "community-based service-learning" differed from the general definition for service-learning offered in the paper. Also, the authors noted community-based service-learning is the least understood and least studied of the streams of service-learning. It may be helpful to include a definition for community-based service-learning and to identify the streams of service-learning. Was a definition of community-based service-learning provided to the participants in this study? It was apparent their perceptions were guided by their experiences with service-learning, but more definition of community-based service-learning would have been helpful to the reader.

The recommendation that Tennessee 4-H Youth Development should sustain and expand the existing service-learning initiative appeared to be beyond the scope of this study. The purpose of this study was to identify benefits of community-based service-learning using a selected group of participants. It appeared generalizations could only be made to the 30 people selected for involvement in this study regarding their perceptions of the benefits of community-based service-learning.

I found the benefits of community-based service-learning identified by 4-H members, volunteers and agents to be interesting and helpful in understanding why service-learning was an important teaching and learning tool to the group selected. I agree with the authors that outcomes assessment of service-learning in 4-H Youth Development and related groups is needed and will be helpful in determining if service-learning should be expanded and sustained in formal and informal educational programs in Tennessee and beyond.

## **READING STRATEGIES AND TEXTBOOK USE IN AGRICULTURAL EDUCATION**

Travis Park and Edward W. Osborne, University of Florida

Agriscience teachers are increasingly being called upon to demonstrate their contributions to student achievement in math, science, and reading. This national survey of 216 agriscience teachers investigated the current attitudes and practices related to reading in agriscience. Agriscience teachers generally appreciated reading for personal development and learning, but were in less agreement about allocation of time for reading. Further, teachers agreed that reading was important in agriscience, but were in less agreement about their role in teaching content area reading strategies. Reading is a fundamental part of instruction in agriscience, with nearly 20% of class time being devoted to reading. Teachers exhibited limited knowledge of, confidence in, and frequency of reading strategy use. Teachers understood how to select textbooks and how to assess student comprehension. Indications suggested that teachers helped students monitor comprehension and activate background knowledge prior to reading.

## **USING CD-BASED MATERIALS TO TEACH TURFGRASS MANAGEMENT: AN ASSESSMENT OF THE TURF FOR TEXANS MASTER GARDENER CURRICULUM**

Chyrel A. Mayfield, Texas A&M University  
Gary J. Wingenbach, Texas A&M University  
David R. Chalmers, Texas A&M University

Cooperative Extension educators have the task of educating the public about issues relevant to agriculture, family and consumer sciences, youth development, and community development. Traditionally, these programs have been delivered in face-to-face workshop settings. In recent years, educators have increasingly used new technologies for program delivery. One technique that has not been explored thoroughly is the CD-ROM. Using a curriculum designed to teach turfgrass management to Master Gardeners, researchers sought to determine if learning differed between students taught using CD-based materials versus those taught in traditional workshops. Using a pre-test/post-test design, learning of 94 students in six counties was measured. Results indicated that CD-based materials were more effective in teaching advanced turfgrass management topics to Master Gardener trainees. The use of CD-based materials in Extension programming could increase the number of clientele reached and enhance their learning experiences.

**EFFECTS OF INVESTIGATIVE LABORATORY INSTRUCTION  
ON CONTENT KNOWLEDGE AND SCIENCE PROCESS SKILL  
ACHIEVEMENT ACROSS LEARNING STYLES**

Brian E. Myers and James E. Dyer, University of Florida

The purpose of this study was to determine the effect of investigative laboratory integration on student content knowledge and science process skill achievement across learning styles. Treatment groups utilized one of three levels of treatment: subject matter approach without laboratory experimentation, subject matter approach with prescriptive laboratory experimentation, and subject matter approach with investigative laboratory experimentation. A nonequivalent control group quasi-experimental design was used. A purposively selected sample based upon the ability of the teacher to effectively deliver the treatments was selected from the population of students enrolled in an introductory agriscience course. Using regression analyses it was determined that learning style, teaching method, ethnicity, content knowledge pretest scores, and science process skill pretest scores accounted for 33% of the variance in content knowledge gain score. Learning style, gender, teaching method, science process skill pretest scores, and content knowledge pretest scores accounted for 36% of the variance in science process skill gain score. Students taught using the subject matter approach or the investigative laboratory approach were reported as having higher content knowledge and science process skill gain scores than students taught using the prescriptive laboratory approach.

**EFFECTS OF LECTURE VERSUS EXPERIENTIAL TEACHING METHOD ON  
COGNITIVE ACHIEVEMENT, RETENTION, AND ATTITUDE AMONG HIGH  
SCHOOL AGRISCIENCE STUDENTS**

Linda Ann Newsome, George W. Wardlow and Donald M. Johnson, University of Arkansas

The purpose of this study was to compare the experiential teaching method with the lecture teaching method on student cognitive achievement on immediate and delayed posttests, and on student attitude toward the subject matter. Four high school agriscience classes from two schools in two different states were selected to participate. A pretest, posttest control group design with an internal replication was utilized. Two versions of two different researcher developed lesson plans were used. A soil erosion lesson was developed in both experiential and lecture versions, as was a lesson on enzymatic browning of fruit. Students within each class were randomly assigned to two groups. Group A received the hands on teaching method for lesson one while students in group B received the lecture method. For lesson two, the groups were reversed, group A receiving the lecture and group B the hands on method. For the students across the two schools used in this study, the main effect of teaching method did not make a difference in student cognitive achievement, retention, or attitude. However, there was a significant interaction between teaching method and school on three of the four post tests of cognitive achievement and retention. This indicates that no single teaching method is likely to be more effective in all classes or with all subject matter areas. This argues for careful selection and use of a variety of teaching methods. Professional educators must select appropriate teaching methods based on their own unique knowledge of their students and subject matter, and specific classroom situation.

**READING STRATEGIES AND TEXTBOOKS USED  
IN AGRICULTURAL EDUCATION**

A Critique by Jacquelyn P. Deeds, Professor Mississippi State University

Reading is integral component of all agricultural educations teaching methodologies but one that has had little previous study. Agricultural education has long advocated problem solving and experiential learning both of which require reading skills and written materials. However, agricultural educators have not always recognized the importance of the reading materials, determining age and ability appropriateness of the materials and the teacher's role in bringing all the elements together. This study addresses these concerns.

The researchers provided an adequate introduction and theoretical framework for the study. They provided a model to help the readers visualize the theoretical framework and the rationale for the study. The research objectives were clear and easy to understand. The panel of experts reviewing the researcher developed instruments for content was made up of content area reading specialists and lends strength to the study.

The researchers followed appropriate procedures for a survey study and secured a response rate that was adequate for this type of study. They used early and late respondents as a way to address non-response error. This methodology is as often used as it is debated but its usefulness as a tool was well cited.

The findings of the study were well presented in text and tabular form making it easy to follow and addressed the objectives in order. For readers unfamiliar with reading strategies, a brief description of the ones used for enquiry in the study would have been helpful. However, this might be prohibitive due to the space limitations of the paper. The question arises, were the respondents provided a description of the strategies or did they have to go only by the short title given?

Most of the discussion of the correlations provided direction for the correlations aided understanding. When one indicates a low negative correlation with gender what exactly does that mean?

The conclusions provided for the study were appropriate for the findings. The recommendations and discussion sections provide many areas for further research and opportunities for discussion. One recommendation is that teacher education programs "ensure that content area reading strategies are a facet of the pre-service experience." In a time when universities are making moves to reduce the number of credit hours required for graduation, the profession needs to discuss a strategy for ensuring that this recommendation is carried out.

Realizing that this study is part of a larger professional initiative it provides some excellent baseline data to work with in the future.

**USING CD-BASED MATERIALS TO TEACH TURFGRASS MANAGERMENTS: AN ASSESSMENT OF THE *TURF FOR TEXANS* MASTER GARDENER CURRICULUM**

A Critique by Jacquelyn P Deeds, Professor Mississippi State University

Universities of all types especially land grant institutions are facing tight economic times yet are still expected to maintain the quality and quantity of their outreach programs. The Cooperative Extension Service is on the front line of this battle looking at reduced travel and programming budgets but with continued and sometimes increased demands for their services. The use of alternative delivery methods of programming is a timely and worthwhile area of research. An area that has been researched for years as new technology is developed.

The paper presents a solid and complete introduction and conceptual framework for the study. The objectives of the study were clear and the procedures were well delineated. The face-to-face teaching was all completed by one individual to assure consistency in the presentations. Because the participants self-selected in to the treatment group readers should have been cautioned regarding the findings.

The findings were presented in appropriate text and tabular forms. However, the researchers should provide the direction of the significance when reporting a significant difference between methods. The researchers from mixed some conclusions in with the findings. Using a description such as “large group indicated” when referring to 18 of 87 respondents might be a little misleading to the reader.

The findings and recommendations were appropriate for the findings. However, a caution related the self-selection of the treatment group is needed. It would seem logical that only the most technology savvy individuals would choose the CD format. It was not surprising to see the conclusion that participants in the Master Gardener program preferred some face-to-face instruction. This has been a consistent finding throughout the years related to Extension clientele.

Further study related to personality type and the face-to-face and CD modules could prove interesting. Because Master Gardeners must be willing to teach and share information with individuals and groups one would assume them to be more people oriented and therefore prefer the face-to-face interaction.

Overall the paper was interesting and explores alternative delivery methods for Extension. All agricultural educators are facing the same budget restrictions and should consider this research as they explore alternative delivery methods.

**EFFECTS OF INVESTIGATIVE LABORATORY INSTRUCTION ON CONTENT KNOWLEDGE AND SCIENCE PROCESS SKILL ACHIEVEMENT ACROSS LEARNING STYLES**

A Critique by Jacquelyn P. Deeds, Professor Mississippi State University

Science and agriculture or the science of agriculture and their/its effective instruction is a vital area of research of the agricultural education profession. Teacher educators need to know what is effective and how to provide pre-service teachers with the skills they need. Experienced teachers need in-service to keep them on the cutting edge of agricultural science and technology. The authors are to be commended for using an experimental design which is often difficult to complete using the public schools. Hypotheses were clear and easy to understand and supported the research purpose and objectives.

The introduction and theoretical framework provided an adequate background for the study. However, since the title discusses achievement across learning styles more theoretical background related to the authors definition of learning style and related findings should have been provided. Field dependent/field independent learning styles are not explained, nor is the use of this particular measure of learning style justified.

The procedures section raises several questions. The population section indicates that 501 students were in the ten schools selected to participate. Only 352 students received the treatment and one school didn't report. What was the final response or participation rate and what kind of follow-up was done related to the missing students and data? When did the study take place and how long were the treatments? [The conclusion section indicates that the investigative approach took 1900 minutes (31+ hours) and the subject matter approach took 1410 minutes (23+ hours) is this correct?]

It is difficult to understand reported response rates on the pre and post tests came from and the numbers they represent. Were data reported for all students participating in any part of the data collection or only for those completing all elements of the study? Did the teachers collecting data receive IRB training?

The findings were clear and easy to follow. The GEFT test results were classified as field dependent, field neutral, and field independent. How were those classifications broken down numerically? There is a serious discussion among some academics as to the appropriateness or lack thereof of using learning styles in relation to achievement. The implication is that one learning style is better than another tends to run counter to the assumption that learning style is something that is not learned but is and that one is not better than another.

The research findings reported in this study should be of great interest to agricultural educators. The study is interesting and raises many questions for discussion.

**EFFECTS OF LECTURE VERSUS EXPERIENTIAL TEACHING METHOD ON  
COGNITIVE ACHIEVEMENT, RETENTION AND ATTITUDE AMONG HIGH  
SCHOOL AGRISCIENCE STUDENTS**

A Critique by Jacquelyn P Deeds, Professor Mississippi State University

Teaching and learning effectiveness should be a major concern of all educators. Experimentation in teaching methodology effectiveness is difficult to perform and the authors are to be commended for their approach to this study. Using high school students in research is often shooting at a moving target and getting participation and complete data is most difficult.

The introduction and theoretical framework, while by necessity brief, provide an adequate base for the study. The theoretical framework also sets up the hypotheses in a manner that is easy to follow and understand.

The procedures appropriately identify the research design and address the threats to validity. The researchers also correctly inform the readers that because they are using a convenience sample that the results are limited in scope. The authors indicated that a panel of experts determined content validity on the researcher developed instruments. What were the qualifications for the panel of experts?

Having the researcher teach all the classes assured the potential effect of teacher was not a threat but introduces an additional element that was not addressed. An additional question is, how were the delayed post-test data collected, was it done by the individual on-site teacher or by the researcher? If by the teachers were they given any IRB training?

The findings were complete and well presented. It was easy to follow the findings to determine if the hypotheses were accepted or rejected. It would be helpful to the reader when there is a significant interaction found that the direction or meaning of that interaction be indicated in the text.

The conclusions were appropriate for the findings. The findings indicate that there are differences in effectiveness of teaching method by school. However, the conclusions did not provide any discussion as to how the schools were different and what might have accounted for the difference other than topic. Providing demographic information about the schools, teacher and researcher might be helpful to the reader in understanding the differences.

The study was interesting and addressed an important topic to agricultural educators at both the university and secondary levels. A longer format might have allowed the authors to address many of the questions in this critique but they provide likely areas to discuss.

**THE INFLUENCE OF LEARNING STYLE, LEADERSHIP STYLE, AND LEADERSHIP ADAPTABILITY ON CRITICAL THINKING DISPOSITION**

Kimberly A. Bellah and James E. Dyer, University of Florida

The purpose of this study was to determine the influence of learning style, leadership style, and leadership adaptability on students' critical thinking disposition. The sample for this study consisted of 115 undergraduate college of agriculture and life sciences students enrolled at a land grant university. Results showed that students are primarily Concrete Sequential and Abstract Random learners, with preferred leadership styles in the Selling and Participating categories, Low to Moderate leadership adaptability scores, and relatively high critical thinking disposition scores. No differences in leadership style, leadership adaptability, or critical thinking disposition were found between students of different learning styles. Likewise, no differences in critical thinking disposition were noted between students of contrasting leadership styles or on leadership adaptability scores. It was suggested that faculty may need to rethink the structure of leadership delivery methods. By structuring higher-order educational activities that require students to match their leadership style with the situations, students may show an increase in leadership adaptability scores. It was recommended that longitudinal studies be conducted to more accurately assess this phenomenon.

**THE EFFECTS OF MULTIMEDIA CUES ON STUDENT COGNITION IN AN ELECTRONICALLY DELIVERED HIGH SCHOOL UNIT OF INSTRUCTION**

Todd Brashears, Cindy Akers, and James Smith, Texas Tech University

The development of electronic curriculum materials holds great promise and rewards for both educators and learners alike, but little research has been conducted to determine the effectiveness of incorporating multimedia components within a electronically delivered unit of instruction. This research tested the theory of cue-summation (multiple cues across multiple channels) in a high school agricultural education setting and measured the effectiveness of the instruction. Curriculum materials were created and placed on CD-ROM for asynchronous delivery capability. Materials comprised a week-long unit of instruction on milk processing and were developed in three Treatments (Tx). The first Tx consisted of text-only materials, the second consisted of text and an audio/video component and the third consisted of audio/video and still images. These three Txs represented single cue, redundancy and cue summation, respectively.

One hundred five high school agriculture science students participated in the study. Instrumentation used included a pretest/posttest for cognition as well as a researcher-developed demographic instrument. Data were collected in the fall of 2003 and analyzed using ANOVA techniques to determine significant differences among the Tx groups. The researcher found that students scored significantly higher on the posttest when exposed to Txs containing an audio/video component. Recommendations include continued research as well as incorporating these findings into current curriculum development efforts for the betterment of the learners involved. Cue-summation produced student performance scores similar to redundancy.



**THE INFLUENCE OF STUDENT LEARNING EXPERIENCE LEVEL AND  
LEARNING STYLE ON ACHIEVEMENT**

T. Grady Roberts, Texas A & M University

An emerging trend on university campuses has been to offer courses totally online, or with a blend of online and face-to-face components. In 2002, over 80% of public universities offered both blended and online courses to their on-campus students. It is reasonable to assume that students enrolled in an online class have a different learning experience and experience the course content differently than students enrolled in a face-to-face class, recognizing that different does not necessarily imply better or worse. The purpose of this quasi-experimental study was to determine if that difference in experience with the course content affects the amount of learning for students of differing learning styles. The sample used in this study consisted of undergraduate students enrolled in an introductory food science course. The control group consisted of students enrolled in a section of the course taught with a traditional lecture (N = 253). The experimental group consisted of students enrolled in a section of the course taught asynchronously using WebCT<sup>®</sup> and web pages (N = 247). Results indicated no differences for Concrete Sequential, Concrete Random, and Abstract Sequential learners. A significant, but impractical difference was found for Abstract Random learners, who achieved higher in the control group.

**A COMPARISON OF COMMONWEALTH ACCOUNTABILITY STANDARDIZED  
TEST SCORES BETWEEN HIGH SCHOOL AGRICULTURAL EDUCATION /  
CAREER AND TECHNICAL EDUCATION STUDENTS AND THE KENTUCKY  
STATE STANDARDS**

Catherine Woglom, Brian Parr, and Jay Morgan, Murray State University

The Kentucky Board of Education designed the Commonwealth Accountability Testing System, or CATS, to assess its school programs. Each school has its own performance goal for every two-year period, ending in 2014. By 2014, the Board of Education hopes every school will receive a score of at least 100 out of 140. While scores can be evaluated by grade, they can also be evaluated by a number of other divisions, such as academic program. Scores in various areas can vary greatly depending on the student's curriculum choice. For example, students enrolled in an agriculture program may fare differently than those enrolled in communication classes in the areas of science, reading or mathematics. A study of these varying scores will not only improve student interest in certain educational programs, but also spotlight programs that may need assistance in reformatting curriculum or teaching styles.

Through a look at the CATS scores of Kentucky's high schools in 2003, the overall scores of agriculture students compared to those of non-agriculture students may suggest the influence agricultural education has on the CATS test. By evaluating these scores by educational program, the CATS tests can be used to evaluate not just the curriculum of the subjects being tested over, but also the programs that contribute to learning these subjects. Through this evaluation, Kentucky's standardized tests can be used to their fullest potential by assessing curriculum and teaching styles, and in turn aiding in the advancement of education.

**THE INFLUENCE OF LEARNING STYLE, LEADERSHIP STYLE, AND  
LEADERSHIP ADAPTABILITY ON CRITICAL THINKING DISPOSITION**

A Critique by Barry L. Boyd, Texas A&M University

This research is an effort to build on earlier research in the area of critical thinking of agricultural education students. The purpose of this study was to examine the impact of learning style, leadership style, and leadership adaptability *en masse* on the predisposition for critical thinking.

I commend the authors for examining critical thinking from a new vantage point. Their research is based upon a strong theoretical framework, drawing upon works in the fields of leadership development and critical thinking. I applaud the authors for moving away from the *Group Embedded Figures* Test that is so frequently used in our field, and using the *Gregorc Style Delineator* to assess learning style.

The authors do a superb job of identifying the limitations of their study, specifically the low numbers of participants who scored in the telling and delegating leadership styles. The low numbers of students exhibiting the telling and delegating leadership styles limited the authors' ability to detect differences and impacts of these leadership styles on critical thinking disposition. My question for the authors is do you think that the distribution of leadership styles that you found in your population is typical of students in colleges of agriculture? Is low to moderate leadership adaptability typical?

The authors reported that the *EMI: Critical Thinking Disposition Assessment's* construct reliability ranged from .57 to .86. A reliability coefficient of .57 is considered only moderately reliable. A discussion of this limitation by the authors would strengthen the paper. Did the authors conduct their own reliability assessment of the instrument?

Good work can always be improved upon and I encourage the authors to look beyond our own field to research that has been conducted on these topics in the fields of education, educational psychology, and other sources of leadership research.

I believe that this research adds to our body of knowledge on critical thinking and serves as the basis for additional research into the topic.

**THE EFFECTS OF MULTIMEDIA CUES ON STUDENT COGNITION IN AN ELECTRONICALLY DELIVERED HIGH SCHOOL UNIT OF INSTRUCTION**

A Critique by Barry L. Boyd, Texas A&M University

Although numerous studies have demonstrated that students learn just as well via distance delivered courses as they do in classrooms, instructors must be as diligent about improving distance instruction as they are improving traditional classroom instruction. Researchers have demonstrated that the success in teaching asynchronously is not in the delivery method itself, but in using correct instructional design principles. This study sought to examine the effect of multiple channels of delivery, or cues, on student learning in an asynchronously delivered secondary agricultural science course.

This study was based on a well-developed theoretical framework. The authors walk the reader through a well-organized methodology. The strength of this study is in its quasi-experimental design and the randomization of the treatment groups. Even though classes were randomly assigned a treatment, it is unclear if the authors compared these classes for differences. Could the makeup of the classes have affected the findings? The researchers sought to control for additional bias in delivery of the modules by conducting training sessions for the student teachers that would deliver the modules in the selected schools. The instrument was effectively pilot tested resulting in removing three items from the instrument, significantly improving its reliability.

Though the authors sought to design three distinctly different treatments, the lack of difference in student achievement between treatments two and three suggest that true cue summation did not occur between these two treatments. This highlights the difficulty in creating well designed instructional modules for asynchronous delivery. The authors provide logical explanations for their findings that are supported that by the literature. How could the third treatment be changed for true cue summation to occur? How would the authors address this for a future study?

While space is always a limiting factor in publication, I would like for the authors to better describe the educational module used in the study. What were the objectives of the module and what exact content was delivered? Because data from two of the classes had to be deleted due to the units not being completed properly, I would like to know how the student teachers were prepared to present this module and the laboratory experiment. What would you do differently to train the student teachers in a future study?

This study had tremendous implications for instructional designers of asynchronously delivered courses. The authors should be encouraged to further pursue this line of inquiry, addressing the questions that they themselves raised, as well as those raised by the various reviewers.

## **THE INFLUENCE OF STUDENT LEARNING EXPERIENCES LEVEL AND LEARNING STYLE ON ACHIEVEMENT**

A Critique by Barry L. Boyd, Texas A&M University

As educators, we must continually keep our focus on our students. Are they getting it? How can we do better in facilitating their learning? As new delivery methods emerge, such as technology mediated instruction, we must ascertain if they are effective in increasing student learning and the quality of that learning experience.

This quasi-experimental study sought to determine if the delivery method (synchronous versus asynchronous) affects the amount of learning for students of differing learning styles. The author used a well-developed methodology, controlling for threats to internal validity. The research is built upon a strong theoretical base and uses appropriate methods of analysis. I applaud the use of the Gregorc Style Delineator, an instrument that better describes learning style than instruments used in previous studies in agricultural education.

This study also raises several questions. The author refers to student learning experience level several times in the article, but most notably in the title and the purpose statement. Is the author equating learning experience level with learning style? If not, how was learning experience level assessed? How did it relate to achievement level? This is unclear.

This research study found no statistically significant differences between synchronous and asynchronous learners for three learning styles (CR, CS, and AS) and no practical difference for a fourth learning style (AR). It was not noted in the study at which level of Bloom's Taxonomy of Cognitive Development the pre and post-test questions were written. Is it feasible that NSD occurs between synchronous and asynchronous learners on content assessed at the lower levels (knowledge, comprehension, and application), but that differences may be observed at the higher levels of analysis, synthesis, and evaluation?

In developing the theoretical framework, the author describes student learning as complex interactions with the instructor and other students. He goes on to state that learning does not occur in isolation, but in complex social environments. The control group (synchronous) had ample opportunity to interact with the instructor and with each other. The treatment (asynchronous) group only had access to e-mail for interaction. This raises the question, did any of the students use that tool to clarify course content with either the instructor or other students? If so, which learning styles used this method for clarification? Was any attempt made to create interaction between students receiving the asynchronous treatment and the instructor?

**A COMPARISON OF COMMONWEALTH ACCOUNTABILITY STANDARDIZED TEST SCORES BETWEEN HIGH SCHOOL AGRICULTURAL EDUCATION/CAREER AND TECHNICAL EDUCATION STUDENTS AND THE KENTUCKY STATE STANDARDS**

A Critique by Barry L. Boyd, Texas A&M University

The authors are to be commended for tackling such a sensitive topic as assessing student achievement using standardized tests. The authors do an excellent job of presenting both sides of the standardized testing issue. Chief among the benefits of standardized testing is the ability to compare students across school districts and groups of students within campuses. This research compared agricultural education and career/technical education students to each other and to the Kentucky state standards using the results of the statewide Commonwealth Accountability Testing System (CATS).

This is a benchmarking study and not designed to explain the causes of the findings. The findings of the study are clearly described. While not the lowest performing major on the CATS test, agriculture education students consistently performed below the state average as a group. This should cause some concern for educators.

The authors make excellent suggestions for continuation of this research to identify causal factors. Are the 2003 scores part of an improving trend or have agriculture education students' scores remained static since the implementation of CATS? What other factors might be impacting agriculture students' scores? For a time, high school counselors were accused of "dumping" low performing students into agricultural education classrooms. Is this practice still occurring? A profile of agricultural education students should be developed. How many truly have an agriculture background or a sincere interest in agriculture?

The authors suggest that if agricultural educators hold their students to higher standards, vary their teaching styles, and have a greater commitment to teach all students, then improvements in standardized test scores can be made. This raises the question of how will these actions help students improve their scores in math, science, social studies, or the humanities? Agricultural educators do not teach these subjects. While Shinn, et al. suggested that math and science can be included in agricultural education, how much of an impact on scores will this make? There are many factors beyond the control of agriculture educators that affect the student's learning. Can we fairly lay the task of improving standardized test scores on these educators alone or is this a systemic problem?

This was a well designed study that contributes to the knowledge base of the profession and raises many questions for agricultural educators to consider.

**COLLEGE OF AGRICULTURE FACULTY PERSPECTIVES IN THEIR ROLE AS  
ADVISOR AND MENTOR**

Robin Peiter and Beth Dukes, University of Kentucky

The purpose of this study was to compare the attitudes, needs, level of competence, and level of training in advising as perceived by faculty at the University of Kentucky. Results showed that faculty would prefer the number of students advised and the advisement of student organizations to be represented in the teaching appointments. However, faculty believed they were not provided enough time to adequately advise students and that advising was not a valued component of promotion and tenure. Faculty felt most competent in communicating with students and assisting with their schedules. They also felt competent in the use of online advising tools and preferred students utilize this rather than a traditional walk-in schedule. Areas where faculty felt least competent included assisting students with financial aid and legal issues concerning advising. Faculty rarely sought out training, however few times training did occur, several methods were employed. The most important role as an advisor for undergraduates was perceived to be assisting students with their degree program, while as a graduate student advisor faculty perceived research as most important. Recommendations included increasing online advising tools and the allowance of time, resources, and a DOE system for faculty to adequately advise students and be rewarded for it. Regarding training of advisors, advising sessions should be included as a component of the university new faculty orientation or a special college session for new faculty. Lastly, a mentoring program should be implemented for new faculty specifically targeted at advising both undergraduate and graduate students.

**FACTORS RELATED TO THE EFFECTIVENESS OF PROGRESS TOWARD  
DEGREE REGULATIONS**

Elizabeth B. Wilson and Barbara M. Kirby, North Carolina State University

This study sought to determine the preliminary results of the progress toward degree regulations for a College 2002 freshmen class (N = 604) who completed their sophomore year of study. The students were divided into two groups - those who had an approved Plan of Study (n=160) and those who did not (n=444). The purpose was to determine if progress toward degree regulations increased retention rates of undergraduate students in a college of agriculture and to explore characteristics of the students that might be related to student's compliance in developing an approved Plan of Study. Study objectives include: 1. What demographic factors are associated with freshman students completing an approved Plan of Study? and 2. Does having a Plan of Study encourage students' progress toward degree as measured by retention of students, total hours completed and total hours completed toward their degree? Class percentile was the only characteristic found to be significantly associated with whether a student completes a Plan of Study. Gender, race, and SAT scores were not. Retention was significantly associated with developing a Plan of Study. Specifically, students who had approved plans earned more credit hours, passed more credit hours and had higher GPAs.

**COVERAGE AND OUTCOMES OF THE SPACE AGRICULTURE  
IN THE CLASSROOM PROGRAM**

Glenn D. Israel, Jennifer M. Richardson, Edward W. Osborne,  
Shannon G. Washburn, and James E. Dyer, University of Florida

The Space Agriculture in the Classroom curriculum entitled “Growing Space” was piloted in four states for the 2003-2004 school year in 6<sup>th</sup> grade classrooms. A follow-up study was conducted to assess whether the project’s goals are being met. These include creating an interest in space agriculture careers among minority and urban students and exposing students of all races and backgrounds to the topics involving space and agriculture for their benefit. A questionnaire was sent to all 395 teachers who received curriculum packets, with 184 teachers responding (a 47% response rate). Of the responding teachers, 154 (84%) used the curriculum. The assessment found that almost 50% of the students in participating classrooms were of a minority group and teachers responded positively to questions regarding the interest of minority students in space and agriculture topics. The Space Agriculture curriculum also reached many students in cities and suburbs. Overall, this study provides evidence that the Space Agriculture in the Classroom materials is meeting its goals.

**STUDENT ADVISING AND MENTORING IN A COLLEGE OF AGRICULTURE:  
EXAMINING FACULTY AND ADMINISTRATION ATTITUDES**

Robin Peiter and Beth Dukes, University of Kentucky

This study examined the attitudes, needs and level of competence for advising and mentoring as perceived at the University of Kentucky. Results indicated perception differences existed between administrators and faculty for number of students advised and time spent by faculty in advisory roles held currently and compared to five years ago. Both administrators and faculty agreed that advisement of students and student organizations should become part of the distribution of effort (DOE). They also agreed that advising should be a valued component of promotion and tenure. However, administrators felt that it was a valued component of promotion and tenure while faculty disagreed. Perception differences were evident again regarding the value of quality advising at various levels. Administrators felt quality advising was valued at the department, college, and university levels; whereas faculty felt it was less valued at the university level. Faculty and administrators also felt advising was a good use of faculty time. Both groups felt faculty are most competent in communicating with students and assisting with planning schedules. Furthermore, for graduate students, administrators felt faculty’s most important role was in advising degree/program requirements. However, faculty felt advising a graduate student’s research was most important. For undergraduate advising, both groups believed the most important advisement role was in degree/program requirements. Recommendations include the formation of a College Advising Task Force comprised of faculty and administrators to address the perception differences and incorporate of new technologies for advising. Another recommendation to this college of agriculture is to create a mentoring program, with an experienced faculty and administrators serving as mentors for new faculty.

**COLLEGE OF AGRICULTURE FACULTY PERSPECTIVES IN  
THEIR ROLE AS ADVISOR AND MENTOR**

A critique by David M. Coffey, Western Kentucky University

This study examined the attitudes, needs and perceived level of competence for advising and mentoring undergraduate and graduate students as perceived by faculty within the College of Agriculture at the University of Kentucky. Faculty perception of the relative *lack of* importance of the “value” of advising for promotion and tenure was striking. Differences between the roles of undergraduate and graduate student advisement were also important.

The authors are to be commended for conducting this study of a timely topic whose “worth” is regularly debated among administrators, faculty, and students. The conceptual framework, although brief, is logical.

Strong points of the manuscript include: the introductory remarks of the need for professional development for training effective advisors rather than relying on their past experiences, the six-tier participant contact attempt regarding the upcoming study, and logical recommendations of the study based upon findings,

Some points for discussion or concerns include:

1. The study leads one to believe that advising is related to course scheduling, university regulations, and career success. However student organizations were included as criteria for advisement. Is advisement of student organizations a part of academic advisement?
2. If student organization advisement is a criterion for advisor effectiveness and 88 percent of the respondents had received no training, what process would you recommend for faculty to become competent in student organizational advisement? Should everyone be a student organization advisor?
3. The use of expanded electronic advising and “on-line advising tools” is hinted. A more thorough explanation of the electronic advising system at UK is needed. Is it more than just scheduling appointments electronically?
4. The disparity between undergraduate and graduate advisors of their perceptions of their roles is understandable with much more time being spent with graduates on their research efforts. When one advises both graduates and undergraduates, should they be given more credit toward faculty load, tenure and promotion requirements?
5. Do differences exist among departments within the college on advisor perceptions?
6. Many in our profession informally advise students of other departments and even colleagues. How should workload reflect “unofficial” advisees?
7. Should everyone be an advisor?



## **COVERAGE AND OUTCOMES OF THE SPACE AGRICULTURE IN THE CLASSROOM PROGRAM**

A critique by David M. Coffey, Western Kentucky University

The Space Agriculture in the Classroom curriculum entitled “Growing Space” was piloted in four states for the 2003-2004 school year in 6<sup>th</sup> grade classrooms. A follow-up study was conducted to assess whether the project’s goals were being met. Goals included creating an interest in space agriculture careers among minority and urban students and exposing students of all races and backgrounds to the topics involving space and agriculture for their benefit

The authors are to be commended for conducting an evaluation of a curriculum project. Too often, curriculum projects are developed with sponsors in mind and little is done to evaluate the effects of the project beyond initial workshops. This project is unique because 3,742 science teachers in four states were mailed an information letter, a sample copy of a magazine, and directions for information for securing complete lesson plans. Three-hundred fifty-six teachers requested lesson plans with 184 teachers from the selected states responding to the evaluation survey. This delivery model differs significantly from the “Train-the-Trainer” or teacher workshops curriculum dissemination efforts commonly related to agricultural education.

Strong points of the manuscript include: an attempt to actually evaluate curriculum materials; a broad, coherent conceptual framework; and logical recommendations based on the results of the study. Charts rather than tables were refreshing and easy to follow. Using the USDE codes rather than Census and/or USDA determinants of rural vs. urban community size was logical but rarely used in most studies.

Some points for discussion or concerns include:

1. Is this a national project? Why were the four states selected? Was it because of their ties to the space industry, diversification of agriculture, rural-urban composition or minority composition?
2. Was the mailing list of teachers from SDE or NSTA officials? How accurate was mailing list?
3. The perception that many of the respondents were not enough electronically literate to utilize the Web site especially in relation to Power Point is disturbing. Was this a time factor or illiteracy? Will utilizing a prepackaged CD make a difference in use?
4. Are curriculum materials successful if they are designed for 6<sup>th</sup> grade materials and utilized for grades K – 11?
5. One is led to believe that “hands-on” workshops are a more effective delivery method for curriculum adoption? Does research confirm this assumption?

**STUDENT ADVISING AND MENTORING IN A COLLEGE OF AGRICULTURE:  
EXAMINING FACULTY AND ADMINISTRATION ATTITUDES**

A critique by David M. Coffey, Western Kentucky University

This study examined the attitudes, needs and perceived level of competence for advising and mentoring as perceived within the College of Agriculture at the University of Kentucky. Comparisons of faculty perceptions vs. administrator perceptions make the study quite interesting.

The authors are to be commended for conducting this study of a timely topic whose “worth” is regularly debated among, administrators, faculty, and students. The conceptual framework, although brief, is logical.

Strong points of the manuscript include the introductory remarks of the need for advisement within the department rather than by professional advisor units; the six-tier participant contact attempt regarding the study, and logical recommendations of the study based upon findings.

Some points for discussion or concerns include:

1. The study leads one to believe that advising is related to course scheduling, university regulations, and career success. However student organizations were included as criteria for advisement. Is advisement of student organizations a part of academic advisement?
2. The use of expanded electronic advising is hinted. A more thorough explanation of the electronic advising system at UK is needed. Is it more than just scheduling appointments electronically?
3. The disparity between faculty and administrators on significance of the role of advisement in tenure and promotion is a challenge. Is faculty advisement on graduate and undergraduate levels respected as a form of scholarship? What causes the disparity that faculty generally perceive administrator do not value advisement while administrators indicate the importance of it? Do perceptions differ among department heads, deans and vice-presidents? Do their actions mentor their perceptions?
4. Do differences exist among departments on advisor perceptions?
5. Should this study be adapted and utilized university-wide to assist higher-level administrators to come to some consensus on the importance of advisement as it is related to academic load, tenure and promotion?